LLM-Powered Decentralized Generative Agents with Adaptive Hierarchical Knowledge Graph for Cooperative Planning

Hanqing Yang¹, Jingdi Chen¹, Marie Siew², Tania Lorido-Botran³, Carlee Joe-Wong¹

¹Carnegie Mellon University
²Singapore University of Technology and Design
³Roblox
⁴Northeastern University

 $\{hanqing 3, jing dic, cjoewong \} @andrew.cmu.edu, marie_siew@sutd.edu.sg, t.loridobotran@northeastern.edu.sg, t.loridobotran@northeaster$

Abstract

Developing intelligent agents for long-term cooperation in dynamic open-world scenarios is a major challenge in multiagent systems. Traditional Multi-agent Reinforcement Learning (MARL) frameworks like centralized training decentralized execution (CTDE) struggle with scalability and flexibility. They require centralized long-term planning, which is difficult without custom reward functions, and face challenges in processing multi-modal data. CTDE approaches also assume fixed cooperation strategies, making them impractical in dynamic environments where agents need to adapt and plan independently. To address decentralized multi-agent cooperation, we propose Decentralized Adaptive Knowledge Graph Memory and Structured Communication System (**DAMCS**) in a novel Multi-agent Crafter environment. Our generative agents, powered by Large Language Models (LLMs), are more scalable than traditional MARL agents by leveraging external knowledge and language for long-term planning and reasoning. Instead of fully sharing information from all past experiences. DAMCS introduces a multi-modal memory system organized as a hierarchical knowledge graph and a structured communication protocol to optimize agent cooperation. This allows agents to reason from past interactions and share relevant information efficiently. Experiments on novel multiagent open-world tasks show that DAMCS outperforms both MARL and LLM baselines in task efficiency and collaboration. Compared to single-agent scenarios, the two-agent scenario achieves the same goal with 63% fewer steps, and the six-agent scenario with 74% fewer steps, highlighting the importance of adaptive memory and structured communication in achieving long-term goals. We publicly release our project at: https://happyeureka.github.io/damcs.

1 Introduction

In recent years, joint decision-making by multiple users has become a critical research area, with applications like robot soccer, autonomous vehicles (Cao et al. 2013), cyber security (Chen et al. 2023a,b), smart grid control (Pipattanasomporn, Feroze, and Rahman 2009), and search-and-rescue (Li, Martinoli, and Abu-Mostafa 2002) modeled as multi-agent decision-making problems (Chen, Wang, and Lan 2021; Chen et al. 2024). Automating decisions in such scenarios may significantly improve efficiency, cost, and safety, yet

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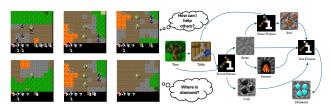


Figure 1: The Multi-agent Crafter Environment. Agents spawn in a shared environment and interact to collect a diamond as quickly as possible, terminating the session upon success. To achieve this, they must craft tools in a hierarchical order while maintaining their health stats.

they often require agents to make joint long-term planning and reasoning decisions under uncertainty, often in largescale systems with high volumes of dynamic information. Much recent work aims to use AI to tackle these challenges by formally modeling such decision-making problems as a Decentralized Partially Observable Markov Decision Process (Dec-POMDP) (Bernstein et al. 2002). Centralized Training and Decentralized Execution (CTDE) is a popular solution framework in which agents centrally train a policy that learns how they should make decisions from historical observations. This centralized training allows agents to learn how to cooperate, but the policy can still be executed distributedly by each agent at test time (Lowe et al. 2017; Li et al. 2022a; Chen, Lan, and Joe-Wong 2024). In multi-agent reinforcement learning (MARL), CTDE still faces challenges like constraints on agent communication, difficulty in adapting to non-stationary environments, and scalability of the centralized training to a large number of agents (Huh and Mohapatra 2023).

Open-world games like Minecraft (Fan et al. 2022) and Crafter (Hafner 2021) feature large, expansive worlds where agents are free to roam and complete tasks without a prespecified path, serving as benchmarks for AI agent capabilities. However, traditional MARL and CTDE approaches struggle in such environments due to the need for centralized, long-term reasoning, which is difficult without custom rewards. Additionally, processing multi-modal data (e.g., vision, text) in open-world games increases complexity and requires extensive training. As environments grow, centralized training for optimizing distributed tasks becomes ineffi-

cient, and CTDE methods face scalability issues, relying on fixed cooperation strategies that hinder adaptability in dynamic settings.

Many challenges in MARL-based solutions stem from the vast amount of information agents must encapsulate in their learned policies, which are typically trained from scratch. Recently, large language models (LLMs) (Brown 2020) have emerged as a potential solution, achieving impressive performance in dialogue generation, complex reasoning (Liang et al. 2022; Achiam et al. 2023; Touvron et al. 2023; Warner et al. 2023), and embodied planning (Ahn et al. 2022; Du et al. 2023; Wang et al. 2023a). Their natural interpretability, due to working in natural language, along with strengths in planning (Ahn et al. 2022), reasoning (Shinn et al. 2024), and problem-solving (Bubeck et al. 2023), suggests they can incorporate prior knowledge and in-context reasoning into open-world problem-solving, potentially overcoming RL limitations. Yet, while LLMs excel in single-agent tasks via zero-shot and few-shot prompting (Huang et al. 2022; Song et al. 2023), scaling to decentralized multi-agent settings introduces new challenges, particularly in open-world games where cooperation and limited communication are critical. These include: a) fusing partially observable or duplicated information across agents; b) handling dynamic, multi-modal agent states and observations in evolving environments; c) enabling selective and strategic communication in costly multi-agent settings (Guo et al. 2024; Zhang et al. 2023); and d) fostering cooperation across dependent tasks, e.g., accomplishing multiple sub-goals to achieve a long-term and shared objective.

In this work, we propose Decentralized Adaptive Knowledge Graph Memory and Structured Communication System (DAMCS) in a novel Multi-agent Crafter environment to address these fundamental challenges that enable agents to collaborate, and dynamically adapt in complex, open-ended environments like open-world survival games. DAMCS is a novel decentralized multi-agent framework that leverages LLMs, featuring two key components: an Adaptive Knowledge Graph Memory System (A-KGMS) and a Structured Communication System (S-CS) to enhance agent cooperation.

Adaptive Knowledge Graph Memory System (A-KGMS) effectively fuses information across agents in dynamic environments, thus addressing the first two challenges of multi-agent LLMs above. Unlike LLM-based agents like SPRING, which uses external knowledge for planning but rarely learns from in-environment interactions (Wu et al. 2024), A-KGMS enables agents to interact and learn from each other's experiences, through a hierarchical adaptive knowledge graph. Each agent maintains and dynamically updates its own graph-based in part on messages from other agents. A-KGMS integrates sensory, episodic, and procedural memory, enabling agents to perceive cues and retrieve relevant experiences for contextual knowledge. Through facilitating interaction between the joint long-term and shortterm memory across agents, agents can efficiently learn, retrieve, and generalize task-relevant knowledge by categorizing and linking experiences. This system allows agents to cooperate across a variety of tasks, adapt to dynamic environments, and handle partial observations while minimizing unnecessary communication.

Structured Communication System (S-CS) ensures that agents exchange only the most relevant information, unlike free-form natural language approaches such as CoELA (Zhang et al. 2023). Agents share key data—such as their current status, resources, and observations—with specific target agents that they aim to assist, following a structured schema to ensure clarity and ease of interpretation. This structured communication focuses on task-relevant information, such as resource availability or task progress, enabling agents to coordinate efficiently across diverse tasks. By minimizing unnecessary data exchange, agents can better align their actions, optimize resource-sharing, and ensure smooth cooperation for achieving shared goals. This protocol fosters collaboration while reducing communication overhead, particularly in complex, dynamic environments.

To evaluate our framework, we develop Multi-Agent Crafter (MAC) extended form environments (Hafner 2021), providing a new platform for testing LLM models on MARL tasks. The framework is different from Multi-agent systems such as environments that simulate group tasks like mining. Our proposed MAC addresses specific gaps that remain underserved by current developed benchmarks. It is designed to balance accessibility and complexity, providing a computationally efficient yet challenging testbed suitable for labs with limited resources. Unlike Minecraft (Fan et al. 2022) which is highly complex and resource-intensive, MAC is streamlined while still requiring significant longterm planning and collaboration. Compared to other benchmarks like SMAC (Samvelyan et al. 2019), which primarily emphasize micro-management in scenarios, MAC focuses on macro-management and challenges like hierarchical task completion, resource sharing, and communication. This includes the need for agents to plan intermediate goals over extended time horizons, which SMAC does not emphasize. Additionally, MAC builds on recent efforts such as Craftax (Matthews et al. 2024), leveraging improvements in runtime performance and task complexity while tailoring the environment for the multi-agent community. By focusing on collaboration and communication dynamics in multiagent systems, it provides unique value as a benchmark for both MARL and LLM-based approaches. Figure 1 shows an example where agents interact using natural language to complete both short- and long-term goals. MAC offers a balanced testbed, bridging the gap between overly complex environments like Minecraft and simpler games like Atari, enabling focused evaluation of cooperation and planning in dynamic settings. We will release the codebase of MAC publicly to provide a testbed for other works to evaluate real-time cooperative multi-agent scenarios involving LLMs. Our key **contributions** are as follows:

 We propose a Decentralized Adaptive Knowledge Graph Memory and Structured Communication System (DAMCS), which is a decentralized cooperative framework for generative agents. This decentralized multi-agent framework leverages LLMs and an Adaptive Knowledge Graph Memory System (A-KGMS), enabling agents to plan, cooperate, and dynamically adapt in open-ended, complex environments.

- We propose a Structured Communication System (S-CS) that optimizes the exchange of relevant information among agents, minimizing unnecessary communication overhead, in contrast to free-form language approaches.
- We develop the Multi-Agent Crafter for MARL tasks, making it an ideal testbed for evaluating decentralized cooperation, communication, and long-term planning in real-time, multi-step tasks. Evaluation results show that DAMCS outperforms both MARL and LLM baselines.

In Section 2, we provide a brief overview of related work. Next, in Section 3, we present our **DAMCS** framework, detailing its memory system, planning mechanism, and communication protocol. In Section 5, we describe how we develop Multi-agent Crafter for MARL tasks. We then evaluate **DAMCS** on Multi-agent Crafter in Section 6 and conclude our findings in Section 7.

2 Related Work

Multi-Agent Cooperation and Communication. Multiagent reinforcement learning (MARL) has advanced decision-making in communication-reliant tasks (Cao et al. 2013), with approaches including *continuous* (Foerster et al. 2016; Sukhbaatar, Szlam, and Fergus 2016; Lowe et al. 2017; Jiang and Lu 2018; Wang et al. 2019; Rangwala and Williams 2020; Chen et al. 2023c; Chen, Lan, and Choi 2023) and discrete communication (Mordatch and Abbeel 2017; Freed et al. 2020; Lazaridou and Baroni 2020; Li et al. 2022c; Tucker et al. 2022; Chen, Lan, and Joe-Wong 2024). Continuous communication, though expressive, suffers from explainability and high overhead (Chen et al. 2023b), while discrete methods (Lowe et al. 2017; Sukhbaatar, Szlam, and Fergus 2016) limit relational learning. Learnable messages (Tucker et al. 2021) improve but lack Dec-POMDP guarantees and require large vocabularies.

Recent work uses LLMs to enhance communication in embodied tasks, e.g., CoELA's free-form natural language generation (Zhang et al. 2023). However, these approaches lack structured planning or reasoning about actions' consequences. LLM-based agents like SPRING leverage external knowledge for planning, but often do not learn from in-environment interactions (Wu et al. 2024). LLM agents have also been used to simulate human behavior and feedback but rely solely on the language model rather than structured reasoning (Yang, Siew, and Joe-Wong 2024). Our work addresses these by proposing a structured communication protocol and a knowledge-graph memory system that allows agents to learn from each other's experiences.

Generative Agents. The use of LLMs for decision-making and planning in dynamic environments has grown rapidly (Yang et al. 2023; Wang et al. 2024; Xi et al. 2023; Sumers et al. 2023). Although LLMs face challenges in handling complex reasoning tasks (Bubeck et al. 2023), they have shown significant promise in guiding agents in real-time environments (Park et al. 2023; Sharma, Torralba, and Andreas 2021; Raman et al. 2024; Pallagani et al. 2022; Gramopadhye and Szafir 2023; Yuan et al. 2023; Li et al.

2022b; Wang et al. 2023b). Some approaches have integrated LLMs for real-time planning and decision-making (Li et al. 2023a; Padmakumar et al. 2022; Kolve et al. 2017; Shridhar et al. 2020; Misra et al. 2018; Zhu et al. 2017; Brodeur et al. 2017; Xia et al. 2018; Savva et al. 2019; Huang et al. 2022). Recent research has also explored systems where multiple LLMs collaborate or debate to enhance problem-solving capabilities (Li et al. 2023b; Du et al. 2023; Wang et al. 2023c). LLMs have demonstrated effectiveness in high-level planning for simpler tasks, where the action space and trajectory length are limited (Huang et al. 2022; Ahn et al. 2022). There has been less work on LLMagents in open-world game environments. Scaling LLMbased planning to open-world environments (Du et al. 2023; Wang et al. 2023c) like Crafter presents challenges such as long-horizon planning and the management of multiple objectives simultaneously, increasing the complexity of planning. (Wu et al. 2024; Li et al. 2024; Wang et al. 2023a) involve single agent systems in open-world games. We present a novel framework, harnessing the interaction of multiple LLM-agents to tackle multiple objectives with dependencies in open-world exploration games.

Knowledge Graph-aided LLM agents. Knowledge graphs help in organizing information and facilitating structured reasoning for large language model agents (Ji et al. 2021; Hogan et al. 2021; Edge et al. 2024). They allow agents to store, retrieve, and update knowledge. Recent works have explored applications of knowledge graphs in decision-making. For example, SPRING uses a knowledge graph to structure decision-making processes (Wu et al. 2024), while Optimus leverages a knowledge graph to model goal hierarchies (Li et al. 2024). While these approaches use knowledge graphs for reasoning and goal understanding, (Wu et al. 2024)'s graph is static, and neither are designed for effective communication in multi-agent systems. In our work, the graph functions as the long-term memory, which agents dynamically update and build, providing other agents with contextual awareness.

3 Framework: DAMCS

In this section, we give an overview of our framework. We first formally define how this framework interacts with our problem environment (Section 3.1) and then describe the design of our multi-modal, adaptive memory system (Section 3.2), structured LLM output for making agent decisions (Section 3.3) and communication protocol that enables agent cooperation (Section 3.4).

3.1 Problem Setting

Our goal is to demonstrate that Large Language Models (LLMs) can effectively plan, coordinate, and execute tasks in a multi-agent environment where collaboration and resource management are critical. We consider an environment model that follows a Decentralized Partially Observable Markov Decision Process (Dec-POMDP) (Bernstein et al. 2002; Chen, Lan, and Joe-Wong 2024), as is common in cooperative MARL, where agents lack complete information about the environment and have only local observations. Figure 2 gives an overview of this framework.

We model the environment as a Dec-POMDP with communication as a tuple $D = \langle I, n, S, A, P, \Omega, O, g, R \rangle$, where $I = \{1, 2, \ldots, n\}$ is a set of n agents, S is the joint **state** space, and $A = A_1 \times A_2 \times \cdots \times A_n$ is the joint **action** space, where $\mathbf{a} = (a_1, a_2, \ldots, a_n) \in A$ denotes the joint action of all agents. $P(\mathbf{s'}|\mathbf{s}, \mathbf{a}) : S \times A \times S \rightarrow [0, 1]$ is the **state transition function** that describes how the environment state evolves, given the actions taken by the agents.

We consider an episode that is divided into a series of timeslots t = 1, 2, ...; at the start of each episode, agents respawn in the center of the map. Within each timeslot, each agent can take an action, e.g., sharing resources with another agent or working towards a goal. Agents decide their action based on their observations, which are contained in the ob**servation** space Ω , and $O(s,i): S \times I \to \Omega$ denotes the function that maps from the joint state space to distributions of observations for each agent i. Each agent's observations, as shown in Figure 2, include its own environment input, as well as communication messages from the other agents. We use $q:\Omega\to M$ to denote the **communication message generation function** that each agent j uses to encode its local observation o_j into a communication message for other agents $i \neq j$. We use $\mathbf{m_{-i}} = \{m_j = g(o_j), \forall j \neq i\}$ to denote the collection of messages agent i receives from all other agents $j \neq i$.

In deciding which actions to take, the agents' goal is to maximize the long-term reward. More formally, they aim to find a policy $\boldsymbol{\pi}$ that maximizes the average expected return $\lim_{T\to\infty} (1/T) E_{\pi}[\sum_{t=0}^T R_t]$, where $R(s, a): S \times A \to \mathbb{R}$ is the reward of the current state s and joint action a and R_t is the reward incurred in timeslot t. As shown in Figure 2, this policy goal is enforced in our framework by including it in a prompt that is fed to a multi-modal large language model (MLLM) along with a prompt to generate plans and actions for the current timestep, thus forming the policy π . For example, Agent 6 in Figure 2 is told to find a diamond. To ensure the LLM finds a good policy based on historical data, each agent maintains its own memory, consisting of both Short-Term Working Memory (STWM) and Long-Term Memory (LTM). The STWM holds information for decision-making at the current timestep, combining current environmental perceptions with relevant information retrieved from LTM. The STWM is then included in the MLLM prompt. The STWM and MLLM responses are then consolidated into the agent's LTM, enabling agents to make strategic decisions based on historical context.

3.2 Adaptive Knowledge Graph Memory System

Recent work in multi-task learning has demonstrated the benefits of integrating heterogeneous data sources for optimized decision-making (Baltrušaitis, Ahuja, and Morency 2018; Ngiam et al. 2011; Xu et al. 2024). In the proposed **Adaptive Knowledge Graph Memory System (A-KGMS)**, inspired by human cognitive processes (Sumers et al. 2023), each agent uses a *multi-modal memory system* combining short-term and long-term memories that facilitates storing and retrieving experiences across different memory types. While existing memory systems focus on aspects like semantic understanding (Li et al. 2024), our sys-

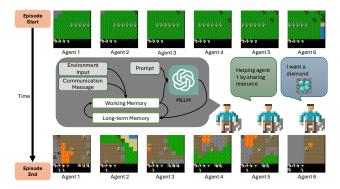


Figure 2: Framework Overview. Multiple agents respawn on the map and interact with each other through a memory system and communication protocol, aiming to collect a diamond as fast as possible.

tem is goal-oriented. This memory system allows agents to learn from past experiences, facilitating task completion in open-world environments.

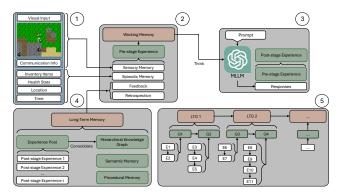


Figure 3: Memory System. The system consists of working memory and long-term memory. Sensory inputs (1) are captured in working memory (2), alongside relevant information retrieved from long-term memory (4). The agent 'thinks' using an MLLM (3) to generate responses and action plans, which are then stored in long-term memory. A consolidation process updates the goal-oriented hierarchical knowledge graph (5), linking new experiences to past events. This graph comprises experience nodes E, goal nodes G, and long-term goal nodes LTG.

Experience. The **experience** for each time step in a learning episode consists of two stages: **pre-stage** and **post-stage**, as shown in Parts 2 and 3 of Figure 3 The **pre-stage** refers to the information available to the agent at the current timestep for decision-making. The **post-stage** is the thought process generated by the language model, then consolidated into **Long-Term Memory**. The post-stage contains full information, including environment cues and the agent's thoughts, which help generalize actions in similar scenarios by emphasizing decision-making and consequences.

Short-Term Working Memory (STWM, Part 2 of Figure 3). STWM refers to the pre-stage experience and consists of four parts: (i). Sensory memory captures raw envi-

ronmental observations, such as visual inputs and communication messages; (ii). **Episodic memory** stores contextual details, including the agent's health, location, time, and inventory; (iii). **Feedback**, retrieved from long-term semantic and procedural memory, provides available actions and their prerequisites; (iv). **Retrospection** offers context from the hierarchical knowledge graph, including recent events, achievements, goals, and progress. STWM, along with a prompt, is processed by a multi-modal large language model (MLLM) to help the agent 'think' and 'plan' its next action.

Long-Term Memory (LTM, Part 4 of Figure 3). LTM consists of an experience pool of post-stage experiences. A consolidation process updates the goal-oriented hierarchical knowledge graph (further explained below) by organizing experiences according to their goals, connecting current experiences with past events and allowing agents to access memories useful to their short- and long-term goals. Semantic memory holds factual knowledge, specifically the hierarchical crafting tree of the environment, which is programmed explicitly using logical expressions. This factual knowledge provides accurate feedback on action prerequisites, while procedural memory stores all available actions. The consolidation process is triggered whenever a new experience is added, updating the hierarchical knowledge graph.

Goal-Oriented Hierarchical Knowledge Graph (Part 5 of Figure 3). The agent maintains an adaptive goal-oriented hierarchical knowledge graph within its LTM. Each node represents an experience (E), and nodes are linked sequentially based on goal-related sequences, reflecting the agent's progress. We link each experience node to a goal node corresponding to the goal it tries to achieve, derived from the LLM output. When a new goal begins, a new goal node (G)is created and connected to the previous one, forming a sequence that tracks the agent's journey. A higher-level Long-**Term Goal node** (LTG) is generated from goal nodes, providing an overview of the agent's long-term progress. At the end of the consolidation process, a summary is updated for the most recent goal node, including the long-term goal, current goal, past goals, and recent experiences. At the planning stage, the agent retrieves information from the most recent goal node (G) and combines it with pre-stage experiences E to form its STWM. This enables the agent to reason and make decisions by integrating past and present data, as well as adjusting strategies in real-time to optimize progress toward current and long-term goals.

3.3 Structured Reasoning Output

Converting unstructured inputs, such as free-form text, into structured data is crucial for developing multi-step agent workflows that enable LLMs to perform actions (Pokrass et al. 2023). Structured outputs provide a framework that constrains language models to follow predefined **schemas**. For example, instead of processing unstructured text like 'The agent moved north to pick up a key', we format it into structured data such as '[Action: Move North, Reason: Pick up a key]'. We utilize structured prompting techniques, combining a carefully tuned output format with environment explanations, to organize working memory into actionable insights. This reduces communication needs and helps the

agent make well-informed decisions. Meanwhile, the number of output tokens is significantly reduced due to formatted and focused responses, resulting in faster generation speed.

Schemas. The schemas are built around three core components: (i) Reflection, which enables agents to review recent actions, summarize outcomes, and reflect on lessons learned to adjust future strategies; (ii) Goal, which tracks both current and long-term objectives, including sub-goals and progress updates, helping the agent stay focused and break down tasks into manageable steps; and (iii) NextAction, which determines the agent's upcoming actions and the reasoning behind them, evaluating prerequisites and ensuring alignment with both short-term and long-term goals. Each component is represented by a data class with fields specifying required responses and data types, using the Python *Pydantic* library.

3.4 Structured Communication System

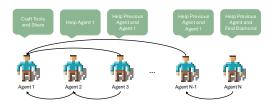


Figure 4: Communication Protocol. Agents collaborate by exchanging messages to coordinate tasks and share resources. An arrow from agent i to agent j indicates that agent i is helping agent j; communication then flows in the opposite direction.

In a multi-agent environment, communication is key for effective cooperation. Our communication framework, consisting of message generation modules $g = \{g_1, \ldots, g_n\}$ for all agents, where $m_i = g_i(o_i, rs_i, c_i, rq_i)$, enables agents to share their current observations o_i , includes status s_i , resource availability rs_i , short-term goal c_i , and assistance requests rq_i . This follows a hierarchical structure, where each agent i prioritizes helping the preceding agent i-1.

We propose a novel Collaboration schema C_i $\Phi(h_i, I_i, \Delta p_i)$ for each agent i and add this to the structured outputs, which is based on the target agents h_i who needs help from agent i, intentions I_i to assist target agents from agent i, and how the collaboration impacts agent i's current plan, denoted by Δp_i . In our multi-agent system, the message generation function q_i can be augmented by incorporating the collaboration schema C_i to refine and guide the message generation process, then the message generation process is enhanced by the information encoded in C_i , i.e., $m_i = g_i(o_i, rs_i, c_i, rq_i, C_i)$. Therefore, the Collaboration schema enables agents to interpret and generate actions $a_i = \pi_i(o_i, \mathbf{m}_{-i}), \text{ where } \mathbf{m}_{-i} = \{m_i = g(o_i), \forall i \neq i\} \text{ to }$ denote the collection of messages agent i receives from all other agents $j \neq i$. This structure ensures that our collaborative agents act in a goal-oriented manner with collaboration as a key consideration.

An Illustrative Example. As illustrated in Figure 4, agents collaborate by communicating and sharing resources

through message generation modules $g=g_1,\ldots,g_n$ to coordinate tasks like allocation and resource sharing. Agents are ordered from 1 to n, with each agent i assisting the preceding agent i-1 and the leader agent 1. The first agent, acts as the leader, crafting essential tools and distributing them to others. The second agent gathers materials and assists the agent 1 with crafting. The last agent n, supports agent n-1 and eventually shifts its focus to finding a diamond, deciding when to switch goals using the collaboration schema $C_n = \Phi(h_n, I_n, \Delta p_n)$. This simple yet effective protocol works in hierarchical environments by parallelizing tasks, fostering cooperation, and keeping communication costs low. It naturally scales with any number of agents n, speeding up the crafting process.

4 Evaluation Challenges of LLM Agents

Evaluating LLM-powered multi-agent systems presents unique challenges. Unlike MARL-based agents, which are trained to optimize carefully crafted rewards, LLM agents rely on prompts and contextual information, making them highly adaptable but sensitive to the evaluation environment.

Limitations of Existing Environments. Existing multiagent benchmarks are often too simple for meaningful collaboration (Terry et al. 2021) or too complex (Berner et al. 2019; Vinyals et al. 2019; Fan et al. 2022). Many focus on micro-level action management, whereas our work emphasizes macro-level planning, communication, and cooperation. Furthermore, MARL frameworks are known for scalability challenges, and existing environments are often not designed to support cooperative tasks that scale well with an increasing number of agents.

Evaluation of Cooperation. LLM-based collaboration is highly adaptable but difficult to quantify. Unlike RL agents that optimize reward signals, LLM-based collaboration relies on context and commonsense reasoning, making responses variable. No standardized metric exists for evaluating cooperation among LLM agents, and extensive modifications to benchmarks are often required. Testing with environment-specific prompts is also time-consuming.

Quantifying LLM Agents' Capabilities. Evaluating memory quality and adaptability in LLM agents is nontrivial. While our **A-KGMS** organizes past experiences, determining the quality of stored information and its impact on decision-making remains challenging. Adaptability is also difficult to measure, as LLM agents adjust dynamically rather than optimizing predefined objectives.

To address these challenges, we introduce Multi-Agent Crafter to evaluate strategic coordination, planning, and resource sharing in open-ended, scalable cooperative tasks.

5 Multi-Agent Crafter: A Novel Testbed

The original Crafter environment (Hafner 2021) is a procedurally generated, open-world survival game used to benchmark RL algorithms. It features a 17 discrete action grid world and tracks player metrics like inventory, health, and crafting progress, with 22 achievements organized in a 7-depth tech tree. Inspired by Minecraft, Crafter simplifies

game mechanics for faster experimentation and results collection. We proposed a novel multi-agent Crafter for multi-agent tasks, enabling cooperative agent interaction and introducing new actions and challenges. These changes, shown in Figure 1, make the environment suitable for studying multi-agent cooperation. Key modifications are outlined below.

A Scalable Cooperative Environment. We extended the Crafter environment to support an arbitrary number of agents, each with independent observations, inventories, and health stats, enabling cooperative agent interaction and introducing new actions and challenges (Figure 1). Agents can collaborate by sharing resources, coordinating actions, and balancing individual roles to achieve collective goals efficiently. Unlike traditional MARL environments, which often focus on micro-level action management, our testbed is designed to evaluate strategic planning, coordination, and shared decision-making.

Our environment allows agents to share items, including resources and tools, fostering teamwork by enabling task delegation and resource management. Crafting dependencies and environmental prompts can be easily customized, increasing task complexity with more participants. This ensures that agents must coordinate and efficiently allocate roles, enabling effective large-scale parallel collaboration. The flexible design makes the testbed suitable for evaluating cooperative behavior potentially for any number of agents.

Evaluation of Cooperation and LLM Agents' Capabilities. Unlike the original Crafter environment, which focused on open-ended exploration, we define a clear objective: agents must collaborate to craft necessary tools and obtain a diamond as quickly as possible while managing their needs for food, water, and energy. This setup allows us to evaluate whether agents can effectively cooperate and reason toward both short- and long-term goals, making the environment ideal for testing multi-agent coordination, planning, and resource optimization.

To assess cooperative efficiency, agents share resources and tools, requiring negotiation, task division, and decision-making. Unlike previous MARL settings, where collaboration is forced or predefined, our testbed allows agents to develop teamwork strategies. Our environment quantifies multi-agent cooperation through indirect measurements, such as tracking the steps an agent takes to craft items, providing insights into decision-making and adaptability.

Support for Language Agents. We added a navigation skill that allows agents to move toward specific resources, reducing the burden of manual low-level movement control. This enables agents to focus on higher-level decision-making, such as strategic planning and collaboration.

Customizability and Compatibility. Our multi-agent Crafter environment is designed to be highly flexible and extensible, supporting RL, MARL, and LLM-powered agents. The single-agent version follows the Gymnasium API, ensuring integration with standard RL libraries, while the multi-agent version aligns with the PettingZoo API, ensuring compatibility with existing MARL frameworks. We provide example training scripts for single-agent experiments using Stable-Baselines3 (SB3) and multi-agent experiments using AgileRL, allowing researchers to efficiently test new

ideas, integrate with existing RL libraries, and adapt the environment for diverse multi-agent challenges.

6 Evaluations

6.1 Experiment Setup and Baselines

Experiment Setup. We evaluate our framework on the proposed Multi-agent Crafter environment (Sec. 5) to test agents' ability to plan and complete hierarchical tasks through cooperation and assess how well our framework scales in multi-agent settings. The final goal is for agents to collect a diamond, which requires completing a series of tasks: collecting stone, iron, and coal, crafting a furnace, and making an iron pickaxe (task hierarchy shown in Figure 1). With our framework's memory systems and communication module for multi-agent collaboration, agents efficiently collect a diamond by distributing tasks and gathering resources in parallel. To evaluate the performance of our framework and analyze the effectiveness of the memory system and communication, we conducted experiments with n = 1, 2, 6agents. The LLM used in our framework is GPT-40, deployed via the Azure platform.

Baselines. We compare our framework with RL/MARL and LLM baselines: (1). RL/MARL baselines. Since we have modified an environment originally designed for reinforcement learning (RL) agents, we test it with RL agents to evaluate if they can learn from the environment in both single-agent and multi-agent setups. We use Proximal Policy Optimization (PPO) for the single-agent case and Multi-Agent Deep Deterministic Policy Gradient (MAD-DPG) for the multi-agent case, MADDPG is recognized as state-of-the-art by BenchMARL (Bettini, Prorok, and Moens 2024). The objective of the environment is to gather a diamond as quickly as possible. The reward is structured so that each item in the hierarchy tree (Figure 1) is assigned a score based on its depth, along with a time penalty. (2). LLM baselines. We also includes LLM-based baselines under difference settings: (i). LLM basic, a basic LLM Agent that employs the structured output prompt combined with a basic memory approach in a single-agent setting, where the agent is aware only of its previous actions; (ii). LLM Mem, a structured output prompt with memory only (Mem only); (iii). LLM MemComm a structured output prompt with both memory (Mem) and communication (Comm). These different LLM agents' configurations allowed us to evaluate the contribution of each component of Decentralized Cooperative Generative Agents.

Metrics. Algorithm performance across all LLM-based settings was measured using the Average number of time Steps (AS) within an episode required for at least one agent to complete each task, as displayed in Figure 6 and Table 1.

6.2 Experimental Results

Evaluating RL/MARL agents. The training results are shown in Figure 5. We trained for 1,000 episodes using a Convolutional Neural Network (CNN) policy for both the actor and critic networks. The reward trends indicate improvement, confirming that the environment is suited for researchers developing RL and MARL methods. However, af-

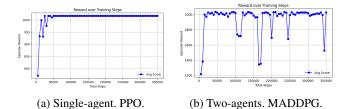


Figure 5: Evaluation of n-RL-trained agents in MAC: Both PPO-trained and MADDPG-trained agents initially show increasing total rewards, indicating active learning. However, they fail to achieve higher rewards as further improvements require acquiring advanced skills in a hierarchical order. Learning remains prohibitively slow for both RL agents.

ter 1,000 episodes, the RL agents still perform suboptimally. This highlights both the progress made by the agents and the limitations of traditional RL approaches in such scenarios.

Evaluating LLM basic agents. Figure 6 shows a comparison between the LLM basic agent in the single-agent, the two-agent, and six-agent scenarios. The LLM basic agent, which only relies on its past actions, without having the goal-oriented memory system, demonstrates an impressive ability to plan and execute tasks using the structured output prompt. However, the LLM basic agent struggles significantly with more complex tasks that have additional prerequisites. The success rate (i.e., fraction of episodes for which the task is successfullly executed) for the LLM basic agent is 100% for the first seven tasks, but it drops to 60% for the last three tasks. One major factor slowing down the agent, if not preventing it from progressing altogether, when completing more complex tasks is that, as the number of past

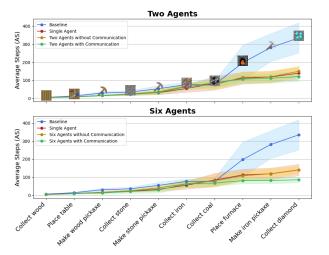


Figure 6: **Two agents** with communication complete tasks faster than two agents without communication, who complete tasks at about the same speed as a single agent. The basic agent is slower than agents with our memory system. **Six agents** with communication complete tasks faster than six agents without communication. They are also faster than two agents with communication.

Table 1: Number of average steps to complete each task in Multi-agent Crafter across five different environments. Communication greatly accelerates agents' time to achieve each task. Results are reported with standard deviations over ten runs.

Setup	Setting	Collect wood	Place table	Make wood pickaxe	Collect stone	Make stone pickaxe	Collect iron	Collect coal	Place furnace	Make iron pickaxe	Collect diamond
Baseline	Simple Mem	6.2 ± 0.82	14.0 ± 3.34	30.2 ± 9.45	35.4 ± 9.83	54.2 ± 19.62	76.6 ± 15.11	76.2 ± 22.13	197.5 ± 109.79	281.0 ± 87.48	334.67 ± 95.07
Single	Mem	5.2 ± 0.84	9.6 ± 0.55	16.2 ± 1.48	23.4 ± 6.47	32.2 ± 12.09	55.2 ± 23.96	84.0 ± 42.64	112.2 ± 36.79	118.8 ± 36.31	140.0 ± 35.94
2 Agents	Mem Mem+Comm	5.0 ± 1.00 5.0 ± 1.00	9.8 ± 0.45 8.0 ± 1.22	16.6 ± 1.82 16.6 ± 4.04	24.6 ± 7.30 21.8 ± 4.97	36.8 ± 12.91 33.2 ± 13.44	$68.0 \pm 18.06 \\ 64.2 \pm 21.39$	$\begin{array}{c} 75.8 \pm 27.82 \\ 88.0 \pm 27.23 \end{array}$	$\begin{array}{c} 117.4 \pm 35.15 \\ 107.0 \pm 25.70 \end{array}$	$\begin{array}{c} 119.6 \pm 34.41 \\ 112.0 \pm 29.33 \end{array}$	$150.4 \pm 32.21 \\ 121.0 \pm 30.27$
6 Agents	Mem Mem+Comm	3.0 ± 1.00 4.0 ± 1.22	8.6 ± 1.14 9.2 ± 2.95	16.6 ± 2.70 12.0 ± 4.95	23.8 ± 5.54 20.6 ± 11.95	40.2 ± 15.11 28.8 ± 18.27	63.4 ± 23.86 62.6 ± 23.20	79.8 ± 37.93 67.2 ± 17.58	107.4 ± 31.84 80.8 ± 19.69	119.2 ± 31.61 81.8 ± 19.69	140.6 ± 21.89 85.4 ± 18.04

actions increases, the agent loses track of what has already been done. This leads to inefficient behavior, such as placing multiple tables, which wastes resources and time (Table 1). Additionally, the LLM basic agent struggles to understand whether its actions have been successful.

Evaluating DAMCS Agents and Ablation Study

Single-agent scenarios. With the goal-oriented memory system A-KGMS, the LLM Mem agent understands the hierarchy and works toward gathering a diamond. LLM Mem agent is able to unlock tasks in a hierarchical order, completing each of them significantly faster than the LLM basic (Table 1). This is largely due to the efficient, relevant memory retrieval and reliable semantic memory feedback, which we can see from the fact that the relative progress of the single agent relative to the basic one accelerates for tasks further in the hierarchy: the single agent collects the diamond almost 3x faster. For example, once the agent sets the goal of placing a table, the semantic memory informs the agent that placing a table requires two pieces of wood. Although this information is available in the environment description text, the LLM basic struggles to understand it when there is too much of this information. With the memory system, the agent is able to set goals in an achievable order. The memory system prevents the agent from repeating efforts.

Two-agent scenarios. In the two-agent scenario, LLM Mem agents without communication perform similarly to the LLM Mem agent in single-agent scenario (Figure 6). However, in a cooperative scenario with communication, the LLM MemComm agents are able to distribute tasks more efficiently. On average, LLM MemComm agents collect a diamond in 121 steps, compared to 140 steps for a single agent, resulting in 13.6% fewer steps to achieve the goal, and 63% fewer steps compared to the LLM basic agent (Table 1). Notably, two LLM Mem agents without communication take an average of 150 steps to obtain the diamond. This is due to conflicts of interest, where both LLM Mem agents may work on the same task or compete for the same resource. For example, two LLM Mem might attempt to gather the same piece of wood, but only one will successfully collect it. Another interesting finding that contributes to the higher step count for diamond collection is the butterfly effect. Since Multi-agent Crafter is a procedurally generated, sequential world, the placement of a crafting station—such as a table—in a particular location can influence subsequent gameplay, impacting the agents' performance.

Six-agent scenarios. Figure 6 illustrates the six-agent scenario. Without communication, the six LLM Mem agents

take approximately the same number of steps to collect a diamond as a single agent. Unlike the two-agent scenario, where interference is limited to just two agents, having more agents increases the potential for conflicts. However, the presence of more agents also provides a greater opportunity to explore different areas, increasing the likelihood of finding locations where resources like stone, coal, iron, and diamonds are clustered together, which reduces the number of steps needed to collect the diamond. Each agent's **A-KGMS** is detailed in Appendix D.

LLM MemComm with communication significantly outperforms all other methods in the six-agent scenarios. Using our communication protocol **S-CS**, the LLM MemComm agents can efficiently distribute tasks, work independently on simpler objectives, and collaborate on more complex tasks, reducing the total number of steps required. With communication, the six LLM MemComm agents are able to collect a diamond using 39% fewer steps compared to a single LLM Mem agent with memory and 74% fewer steps compared to the LLM basic agent.

7 Conclusion

In conclusion, this paper introduces the Decentralized Adaptive Knowledge Graph Memory and Structured Communication System (DAMCS), a decentralized framework for generative agents. DAMCS leverages LLMs and a hierarchical Adaptive Knowledge Graph Memory System (A-KGMS) to improve multi-agent cooperation in dynamic environments. By integrating structured output with A-KGMS and the Structured Communication System (S-CS), agents effectively balance long-term planning with real-time decision-making. To validate our framework, we develop an open-world Multi-Agent Crafter for evaluating multiagent tasks. Evaluations show that DAMCS significantly outperforms baselines, particularly in long-term collaborative planning and task efficiency. The introduction of the Structured Communication System (S-CS) allowed agents to efficiently manage resource collection by dynamically assigning roles during gameplay. This behavior was absent in agents lacking memory or communication, where efforts were often duplicated as agents worked on the same task rather than dividing responsibilities. These findings underscore the potential of combining LLM-driven strategies and knowledge graphs to enhance cooperation, learning, and decision-making in decentralized multi-agent systems. This work paves the way for further exploration of LLM-powered agents in complex, dynamic environments.

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A Environment Description

Below is the instruction prompt that describes the environment. The instruction prompt is sent to the Language Agent at every step to ensure it remains aware of the environment.

Multi-agent Crafter Multi-Agent Crafter is a sandbox game where players gather resources, craft tools, and survive. You are tasked with collaborating with other agents. The ultimate goal is to mine a diamond as quickly as possible, and only one agent needs to obtain the diamond.

I. Key Features

Unique worlds with varying terrains.

Resource gathering: wood, stone, coal, iron, diamond.

Crafting system for tools.

Survival mechanics such as health, drink, hunger, and energy management.

II. Getting Started

Collect resources from the environment.

Use resources to craft basic tools.

Gather advanced materials with improved tools.

Craft advanced tools to achieve higher-level goals.

Ultimately, collect a diamond to complete the main objective.

III. Tips for Success

Continuously upgrade tools based on the crafting hierarchy.

Progress to new goals once the current one is complete.

Learn from setbacks and adapt your approach.

IV. Prerequisites and Crafting Hierarchy

Collect Cow: {facing: cow}
Collect Drink: {facing: water}
Collect Wood: {facing: tree}

Collect Stone: {facing: stone, wood pickaxe: 1} Collect Coal: {facing: coal, wood pickaxe: 1} Collect Iron: {facing: iron, stone pickaxe: 1}

Collect Diamond: {facing: diamond, iron pickaxe: 1}

Place Table: {facing: grass, wood: 2}
Place Furnace: {facing: grass, stone: 4}
Make Wood Pickaxe: {facing: table, wood: 1}

Make Stone Pickaxe: {facing: table, stone: 1, wood: 1}
Make Iron Pickaxe: {facing: furnace, iron: 1, coal: 1, wood: 1}

V. Rules About the World

Assumptions or guesses are not permitted; all actions must be verified using inventory or other references.

Actions may fail; inventory checks should be performed before proceeding.

Health stats are crucial. If hunger is low, navigate to a cow and collect it; if drink is low, collect water; if energy is low, sleep.

To collect or attack, face the material, ensure the correct tool is available, and perform the "do" action repeatedly.

The Navigator tool can be used to locate targets.

Placed items should not be placed again unnecessarily, as this consumes additional materials.

B Structured Output Format

The structured output ensures that the model always generates responses adhering to the supplied schema. The schema is designed using the *pydantic* library. The Response Event is structured with four main components: collaboration, reflection, goal, and action. For each component, the language agent is required to answer a different set of questions, guiding its next action selection. The Enum class guarantees that the response is a valid option in the environment, enhancing the language agent's ability to run more smoothly. Below is the detailed schema.

```
from pydantic import BaseModel, Field
   from enum import Enum
3
4
   class ResultType(str, Enum):
5
       SUCCESS = "success"
6
       FAILURE = "failure"
7
       IN_PROGRESS = "in_progress"
8
9
   class ActionType(str, Enum):
       noop = "noop"
10
       move_left = "move_left"
11
       move_right = "move_right"
12.
       move_up = "move_up"
13
       move_down = "move_down"
14
15
       do = "do"
       sleep = "sleep"
16
       place_stone = "place_stone"
17
       place_table = "place_table"
18
       place_furnace = "place_furnace"
19
       place_plant = "place_plant"
20
21
       make_wood_pickaxe = "make_wood_pickaxe"
22
       make_stone_pickaxe = "make_stone_pickaxe"
       make_iron_pickaxe = "make_iron_pickaxe"
23
       Navigator = "Navigator"
24
25
       share = "share"
26
27
   class GoalType(str, Enum):
28
       COLLECT_WOOD = "collect_wood"
       MAKE_WOOD_PICKAXE = "make_wood_pickaxe"
29
30
       COLLECT_STONE = "collect_stone"
31
       MAKE_STONE_PICKAXE = "make_stone_pickaxe"
32
       COLLECT_IRON = "collect_iron"
       MAKE_IRON_PICKAXE = "make_iron_pickaxe"
33
34
       COLLECT_DIAMOND = "collect_diamond"
35
36
       PLACE_TABLE = "place_table"
37
       PLACE_FURNACE = "place_furnace"
38
       COLLECT_COAL = "collect_coal"
39
       SHARE = "share"
40
41
   class LongTermGoalType(str, Enum):
42
       MAKE_WOOD_PICKAXE = "make_wood_pickaxe"
43
       MAKE_STONE_PICKAXE = "make_stone_pickaxe"
       MAKE_IRON_PICKAXE = "make_iron_pickaxe"
44
       PLACE_TABLE = "place_table"
45
       PLACE_FURNACE = "place_furnace"
46
47
       COLLECT_DIAMOND = "collect_diamond"
48
       HELP_AGENT = "help_agent"
49
50
   class MaterialType(str, Enum):
51
       TABLE = "table"
52
       FURNACE = "furnace"
       GRASS = "grass"
53
       SAND = "sand"
54
       LAVA = "lava"
55
56
       TREE = "tree"
57
       WATER = "water"
```

```
58
        STONE = "stone"
59
        COAL = "coal"
60
        IRON = "iron"
61
        DIAMOND = "diamond"
62
63
    class NavigationDestinationItems(str, Enum):
64
        TREE = "tree"
65
        WATER = "water"
        STONE = "stone"
66
        IRON = "iron"
67
68
        DIAMOND = "diamond"
69
        COAL = "coal"
70
        GRASS = "grass"
71
        TABLE = "table"
        FURNACE = "furnace"
 72
73
        NOT_APPICABLE = "not_applicable"
74
75
   class ShareableItems(str, Enum):
76
        WOOD = "wood"
        STONE = "stone"
77
        COAL = "coal"
78
79
        IRON = "iron"
80
        DIAMOND = "diamond"
81
        WOOD_PICKAXE = "wood_pickaxe"
        STONE_PICKAXE = "stone_pickaxe"
82.
        IRON_PICKAXE = "iron_pickaxe"
83
84
        NOT_APPLICABLE = "not_applicable"
85
86
    class InventoryItems(str, Enum):
87
        WOOD = "wood"
        STONE = "stone"
88
        COAL = "coal"
89
90
        IRON = "iron"
91
        DIAMOND = "diamond"
92
        WOOD_PICKAXE = "wood_pickaxe"
        STONE_PICKAXE = "stone_pickaxe"
93
94
        IRON_PICKAXE = "iron_pickaxe"
95
96
    class Reflection(BaseModel):
97
        vision: list [Material Type] = Field (description="List of materials you see around you."
98
        last_action: ActionType
99
        last_action_result: ResultType
100
        last_action_result_reflection: str
101
        last_action_repeated_reflection: str = Field(description="Did you repeat the last
            action? If so, why?")
102
103
    class Goal(BaseModel):
104
        ultimate_goal: LongTermGoalType = Field(description="What is your ultimate goal?")
105
106
        long_term_goal: LongTermGoalType = Field(description="Working towards the ultimate
            goal, what should be your next goal?")
107
        long_term_goal_subgoals: str = Field(Description="What are the subgoals to complete
            the long term goal?")
108
        long_term_goal_progress: GoalType = Field(Description="What is the progress of the
            long term goal?")
109
        long_term_goal_status: ResultType
110
        current_goal: GoalType = Field(description="The current goal that you are working on."
111
            )
112
        current_goal_reason: str
113
        current_goal_status: ResultType
114
115 class InventoryItemsCount(BaseModel):
116
        item: InventoryItems
```

```
117
        count: int
118
119
    class NextAction(BaseModel):
120
        next_action: ActionType = Field(description="What is the next action you plan to take?
121
        next_action_reason: str
122
        next_action_prerequisites_status: ResultType = Field(description="Are the
            prerequisites met?")
123
        next_action_prerequisites: str = Field(description="What prerequisites are not met?")
124
        final_next_action: ActionType = Field(description="What is your final decision on next
125
        final_next_action_reason: str
126
        final_target_material_to_collect: NavigationDestinationItems = Field(description="
            Navigate to where?")
        final_target_material_to_share: ShareableItems = Field(description="Share what?")
127
128
        final_target_agent_id: int = Field(description="Which agent to share with, if
            applicable, or return -1.")
129
130
    class Collaboration(BaseModel):
131
        target_agent_to_help: int = Field(description="Which agent should you help, if
            applicable?")
132
        target_agent_need: ShareableItems = Field(description="What does the target agent need
            , if applicable?")
133
        help_method: str = Field(description="What can you do to help the agent, if applicable
134
        can_help_now: ResultType = Field(description="Can you help the agent now? Do you have
            the resources in inventory?")
135
        being_helped_by_agent: int = Field(description="Which agent is helping you, if
            applicable?")
        help_method_by_agent: str = Field(description="What is the agent doing to help you, if
136
             applicable?")
        change_in_plan: str = Field(description="How does the help from the agent change your
137
            plan, if applicable?")
138
139
    class ResponseEvent(BaseModel):
140
        epsiode_number: int = Field(Description="What is the current episode?")
141
        timestep: int = Field(Description="What is the current timestep in the episode?")
142
        past_events: str = Field(Description="Briefly describe the past events in the episode.
143
        current_facing_direction: MaterialType
        current_inventory: list[InventoryItemsCount] = Field(Description="What is in your
144
            current inventory? Only list items with item count greater than 0.")
145
        collaboration: Collaboration
        reflection: Reflection
146
147
        goal: Goal
148
        action: NextAction
149
        summary: str = Field(Description=(
150
                                     "Summarize the episode, including the timestep, long-term
                                        goal, progress, significant events, and plan. "
151
                                     "Explain your actions, the rationale behind your decisions
                                         . Treat as if you have done the next actions aleardy.
                                         Explain your intended support for other agents (if
                                         applicable). What should come next?"
152
                                     "Keep the summary concise and focused on key information,
                                        using *past tense* for everything as it serves as a
                                         note for future reference. Use clear and plain
                                         language."
153
                                     "Use PAST TENSE!!!\n")
154
```

C Adaptive Hierarchical Knowledge Graph

Below is the Adaptive Knowledge Graph of Agent 0 in a six-agent communication setting. Blue nodes represent step nodes, green nodes represent goal nodes, and red nodes represent long-term goal nodes. Note that a goal node may be associated with multiple step nodes, and a long-term goal node may be associated with multiple goal nodes.

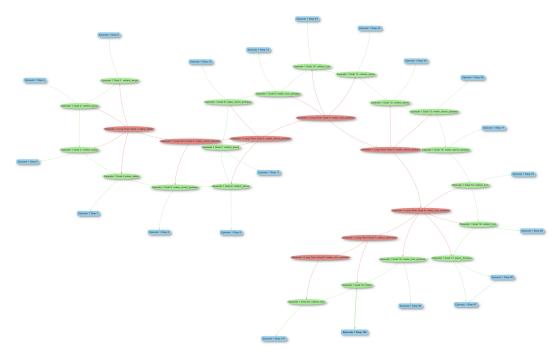


Figure 7: Example of an Adaptive Hierarchical Knowledge Graph for an Agent in an Episode.

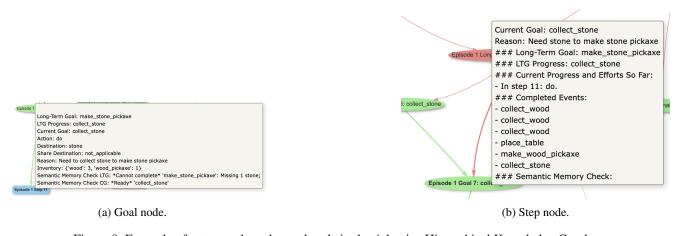


Figure 8: Example of a step node and a goal node in the Adaptive Hierarchical Knowledge Graph.

D Six Agents with Communication - Memory of Each Agent in the Same Game

Figure 9 illustrates each agent's memory structure during gameplay. While each agent independently controls its own behavior and maintains its own memory, the Structured Communication System (S-CS) ensures they remain aware of others' progress, enabling timely and adaptive cooperation.

Agent 0, responsible for tool crafting, follows a sequential memory structure, reflecting hierarchical goal progression. Agent 1, tasked with assisting Agent 0, develops clustered memories centered on crafting and resource gathering, helping Agent 0 with its needs. Similarly, Agent 2 supports Agent 1, with memory clusters focused on cooperative material collection and crafting tasks. These agents dynamically adjust their strategies based on shared information in a decentralized manner.

Agents 3 and 4, focused on resource sharing, exhibit simpler, less interconnected memory structures since their role is primarily to collect and distribute materials rather than craft tools. Agent 5, which monitors the overall team's progress, integrates information from all agents and determines when to transition toward diamond collection.

The S-CS plays a crucial role in shaping these memory patterns. Crafting agents exhibit structured, sequential goal formation, while resource-gathering agents maintain more discrete clusters, prioritizing aid based on real-time assessments. Decentralized decision-making, enhanced by communication, ensures that agents act autonomously while dynamically adapting their goals to support the team. By optimizing task allocation and minimizing redundant efforts, S-CS enables more effective decentralized cooperation.

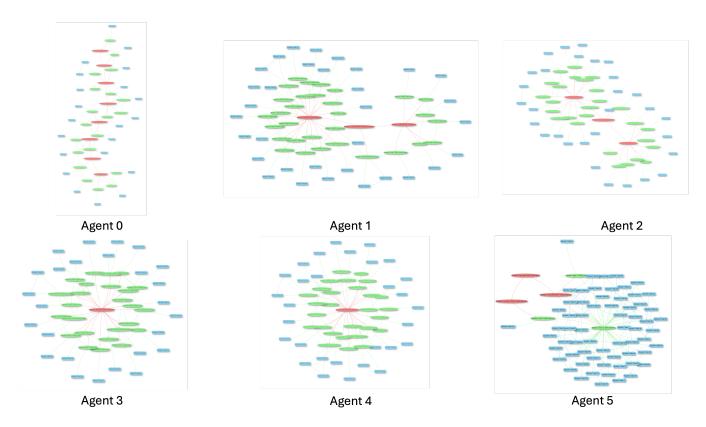


Figure 9: Memory of each agent in a game play.

E Complete Game Trajectories

The complete game trajectory of six agents with memory and communication is presented below.

```
In [8]:
```

==== total step: 0 current st Player 0 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 0 Player 1 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 1 Player 2 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 2 Player 3 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 3 Player 4 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 4 Player 5 is doing ('noop', '', '', -1) with action noop; current status: Act ionStatus.DONE agent 5 Player 0 Player 1 Player 2 Player 3 Player 4 Player 5

context

info

summary

agent_id

Current Experience - This is episoide 1. It is currently 0 steps into the episoide. You are at loaction [29 32]. - Facing Direction: You are facing a grass. - Current Health Stats: This is agent 0. In Episode: 1 health: 9, food: 9, drink: ; Timestep: 0. My inventory long_term_goal: 9, energy: 9. contained nothing. In the make_wood_pickaxe Current Inventory: past, I successfully started sapling: 0, wood: 0, with clear conditions. On current_goal: stone: 0, coal: 0, iron: 0, collaboration, Agent 1 was collect_wood set to help me by sharing diamond: 0. wood_pickaxe: 0, resources. I navigated to a op: Navigator 0 0 stone_pickaxe: 0, tree because I needed wood iron_pickaxe: 0, to craft a basic tool. This navigate to: tree wood_sword: 0, action was in progress. I stone_sword: 0, planned to work towards share: making a wood pickaxe iron_sword: 0. not_applicable because it is necessary to ### Past Actions advance in the crafting target_agent_id: -1 The last 7 actions are: hierarchy and ultimately collect a diamond. ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 long_term_goal: This is agent 1. In Episode: 1 ### Current Experience help_agent ; Timestep: 0. My inventory - This is episoide 1. It is contained nothing. In the currently 0 steps into the current_goal: past, I successfully n/a; I episoide. You are at failed to n/a. On collect_wood loaction [30 32]. collaboration, I needed to - Facing Direction: You help Agent 0. I navigated to op: Navigator are facing a grass. a tree because I needed - Current Health Stats: navigate to: tree wood to develop tools and health: 9, food: 9, drink: aid Agent 0. This action 9, energy: 9. succeeded. I planned to share: - Current Inventory: not_applicable work towards collecting sapling: 0, wood: 0, wood because it is stone: 0, coal: 0, iron: 0, necessary to craft tools to target_agent_id: -1 diamond: 0, assist Agent 0. wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions

agent_id context info summary The last 7 actions are: ### Collaboration: Need Your Help!!! ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You longterm goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

2 2

Current Experience - This is episoide 1. It is currently 0 steps into the episoide. You are at loaction [31 32]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:

Collaboration: Need Your Help!!!

Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. long_term_goal: help_agent

current_goal: collect_wood

op: Navigator

navigate to: tree

share: not_applicable

target_agent_id: -1

This is agent 2. In Episode: 1; Timestep: 0. My inventory contained nothing. In the past, I successfully started the episode; I failed to act as there were no past actions. On collaboration, I monitored agents' needs, but no immediate help was necessary. I navigated to a tree because collecting wood is essential for advancing tools and helping other agents. This action was in progress because I needed to gather basic resources. I planned to work towards collecting wood because it's crucial for

crafting the first tool and

potentially helping other

agents.

context

info

summary

agent_id

agent_iu	Context	IIIIO	Summary		
	You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help, If they don't need help, you should focus on advancing your tools.				
3 3	### Current Experience - This is episoide 1. It is currently 0 steps into the episoide. You are at loaction [32 32] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: ### Collaboration: Need Your Help!!! ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0.	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 3. In Episode: 1; Timestep: 0. My inventory contained nothing. In the past, I successfully gathered wood and stone; I failed to assist Agent 0 due to lack of resources. On collaboration, I aimed to help Agent 0 but needed more resources. I navigated to a tree to gather wood because I needed to craft tools. This action was successful because a tree was accessible. I planned to work towards helping Agent 0 by gathering resources because it's the current long-term goal.		

info agent_id context summary You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

4 4

Current Experience - This is episoide 1. It is currently 0 steps into the episoide. You are at loaction [33 32]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:

Collaboration: Need Your Help!!!

Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and long_term_goal: help_agent

current_goal: collect_wood

op: Navigator

navigate to: tree

share: not_applicable

target_agent_id: -1

This is agent 4. In Episode: 1; Timestep: 0. My inventory contained no materials. On collaboration, no requests for help were identified yet, so I focused on collecting resources for tool advancement. I prepared to navigate to a tree to start collecting wood because it is essential for crafting tools. This action was in progress to help in future collaborations. I planned to work towards helping agents by first advancing my tools and resources.

agent_id	context	info	summary
	help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help, if they don't need help, you should focus on advancing your tools.		
5 5	### Current Experience - This is episoide 1. It is currently 0 steps into the episoide. You are at loaction [34 32] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your	long_term_goal: collect_diamond current_goal: collect_diamond op: Navigator navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 0. My inventory contained nothing. In the past, I successfully started the episode with no actions. On collaboration, I was set to receive an iron pickaxe from Agent 4 to collect a diamond. I navigated towards a diamond because I am tasked with collecting it. This action was in progress since I needed to locate a diamond first. I planned to work towards collecting a diamond because this is the ultimate goal of my current task.

agent_id context info summary long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond. and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

0%| | 1/350 [00:19<1:53:24, 19.50s/it] Knowledge graph saved to results/agent_0/knowledge_graph_1.html length route 3 Knowledge graph saved to results/agent_1/knowledge_graph_1.html length route 4 Knowledge graph saved to results/agent_2/knowledge_graph_1.html length route 5 Knowledge graph saved to results/agent_3/knowledge_graph_1.html lenath route 5 Knowledge graph saved to results/agent_4/knowledge_graph_1.html length route 4 Knowledge graph saved to results/agent 5/knowledge graph 1.html length route 44 Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_0/knowledge_graph_1.html agent 0 ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_wood_pickaxe': Missing 1 woo d; - For immediate goal: *Cannot complete* 'collect_wood': everything is read y, should navigate to tree; Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS | 2/350 [00:19<57:21, 9.89s/it]

```
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
======= total step: 2 current st
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 2
```

```
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 3
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 43
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': Missing 1 woo
d;
  - For immediate goal: *Ready* 'collect wood'
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move down; current status: ActionStatus.IN PROGRESS
```

1%| | 3/350 [00:19<38:27, 6.65s/it]

```
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe:
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 3 current st
Knowledge graph saved to results/agent 0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 5
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 42
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': Missing 1 woo
d:
  - For immediate goal: *Ready* 'collect wood'
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
```

1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_2/knowledge_graph_1.html agent 2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent_3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













12/3/24, 10:53 PM six_agent_mem_comm

agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_wood_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 3. My inventory Timestep: 0. My inventory contained nothing. In current_goal: contained nothing. In the past, I collect_wood the past, I successfully started with clear successfully conditions. On collaboration, op: do navigated to a tree. Agent 1 was set to help me by On collaboration, I sharing resources. I navigated navigate to: tree was to wait for Agent to a tree because I needed 1 to share resources. I wood to craft a basic tool. This share: prepared to collect action was in progress. I not_applicable wood because I planned to work towards making needed it to craft a wood pickaxe because it is tools. This action was target_agent_id: -1 necessary to advance in the in progress. I planned crafting hierarchy and ultimately to work towards collect a diamond. making a wood pickaxe because it is ### Current Experience essential for acquiring - This is episoide 1. It is advanced materials. currently 3 steps into the episoide. You are at loaction [29] 30]. - Facing Direction: You are facing a tree. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_wood_pickaxe': Missing 1 wood: - For immediate goal: *Ready* 'collect_wood' - To satisify the prerequiste, you made the following efforts recently towards collect_wood:

- In step 0: Navigator to tree. .

Collaboration: Need Your

12/3/24, 10:53 PM six_agent_mem_comm

	agent_id	context	info		summary
		Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5			
1	1	in progress	in progress	in progress	
2	2	in progress	in progress	in progress	
3	3	in progress	in progress	in progress	
4	4	in progress	in progress	in progress	
5	5	in progress	in progress	in progress	
	1%	4/350 [00:30<44:39,	7.74s/it]		

```
==== total step: 4 current st
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 41
Player 0 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













12/3/24, 10:53 PM six_agent_mem_comm

agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_wood_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 4. My inventory Timestep: 3. My inventory current goal: contained 1 wood. In the past, I successfully contained nothing. In the past, collect_wood I successfully navigated to a navigated to a tree; I tree. On collaboration, I was to op: Navigator failed to collect wait for Agent 1 to share additional wood. On resources. I prepared to navigate to: tree collaboration, I was collect wood because I being aided by Agent 1 needed it to craft tools. This share: with resource sharing. not_applicable action was in progress. I I navigated to a tree planned to work towards because I needed more wood to place a table making a wood pickaxe target_agent_id: -1 because it is essential for and craft a wood pickaxe. This action acquiring advanced materials. was in progress, as I ### Current Experience could not collect - This is episoide 1. It is enough wood. I planned to work towards placing currently 4 steps into the episoide. You are at loaction a table because I need [29 30]. the crafting station for - Facing Direction: You are tool creation. facing a player. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table; need to place a table first, and Missing 1 wood, and navigate to grass

to place it;

- For immediate goal: should work on long-term goal now.

agent_id context info summary - To satisify the prerequiste, you made the following efforts recently towards collect wood: - In step 3: do. . ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 long_term_goal: This is agent 1. In ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 1. In Episode: 1; 4. My inventory Timestep: 0. My inventory current_goal: contained nothing. In contained nothing. In the past, collect_wood the past, I successfully I successfully n/a; I failed to navigated to a tree; I n/a. On collaboration, I needed op: do failed to collect wood to help Agent 0. I navigated to previously due to not a tree because I needed wood navigate to: tree reaching the tree yet. to develop tools and aid Agent On collaboration, I need 0. This action succeeded. I share: wood to help Agent 0 by planned to work towards gathering and sharing resources. I navigated collecting wood because it is target_agent_id: 0 necessary to craft tools to to a tree because it is assist Agent 0. necessary to gather wood for crafting ### Current Experience essential tools and to - This is episoide 1. It is assist Agent 0. This currently 4 steps into the action succeeded as I episoide. You are at loaction am now near a tree. I [29 29]. planned to work - Facing Direction: You are towards helping Agent facing a sand. 0 by collecting wood - Current Health Stats: health: because they require it 9, food: 9, drink: 9, energy: 9. for their progression. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". ### Crafting Station Availability: - Table: still needs to be placed.

- Furnace: still needs to be

agent_id	context	info	summary
	placed.		
	### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 0: Navigator to tree.		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools.		
	### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
2 2	in progress	in progress	in progress
3 3	in progress	in progress	in progress
4 4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 0. My inventory contained no materials. On collaboration, no requests for help were identified yet, so I focused on collecting resources for tool advancement. I prepared to navigate to a tree to start collecting wood because it is essential for crafting tools. This action was in progress to help in future collaborations. I	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 4. My inventory contained no materials. In the past, I successfully navigated to a tree; I failed to share resources as I lacked inventory. On collaboration, I was aware of the need to help agents but focused on advancing tools due to my limited resources. I collected

agent_id	context	info	summary
agent_id	planned to work towards helping agents by first advancing my tools and resources. ### Current Experience - This is episoide 1. It is currently 4 steps into the episoide. You are at loaction [34 32] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0,	info	wood because it's essential for crafting tools. This action was in progress because I was actively working towards collecting it. I planned to work towards helping agents by first gathering resources and advancing tools.
	wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.		
	### Past Actions The last 7 actions are: Attempted "navigate to a tree".		
	### Crafting Station Availability: - Table: still needs to be placed Furnace: still needs to be placed.		
	### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Ready* 'collect_wood' - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 0: Navigator to tree.		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 3 is completing the task.		

Collaboration Policy

agent_id	context	info	sui	mmary
	You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
1%	5/350 [00:43<50:04,	8.71s/it]		

```
==== total step: 5 current st
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 8
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 40
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action do; current status: A
ctionStatus.DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -1) with action
```

do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
0	0	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 4. My inventory contained nothing. In the past, I successfully navigated to a tree; I failed to collect wood previously due to not reaching the tree yet. On collaboration, I need to help Agent 0 by gathering and sharing resources. I navigated to a tree because it is necessary to gather wood for crafting essential tools and to assist Agent 0. This action succeeded as I am now near a tree. I planned to work towards helping Agent 0 by collecting wood because they require it for their progression. ### Current Experience - This is episoide 1. It is currently 5 steps into the episoide. You are at loaction [29 29] Facing Direction: You are facing a sand Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: still needs to be placed Furnace: still needs to be placed.	in progress long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 1. In Episode: 1; Timestep: 5. My inventory contained nothing. In the past, I successfully navigated towards a tree; I failed to collect wood because I hadn't reached it yet. On collaboration, I was focused on helping Agent 0 by attempting to gather wood. I navigated to a tree because it is necessary to gather wood to craft essential tools and to assist Agent 0. This action was in progress as I was positioning myself closer to the tree. I planned to work towards helping Agent 0 by collecting and sharing wood because they require it for their progression.

	agent_id	context	info	summary
		### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 4: do ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
41	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 4. My inventory contained no materials. In the past, I successfully navigated to a tree; I failed to share resources as I lacked inventory. On collaboration, I was aware of the need to help agents but focused on advancing tools due to my limited resources. I collected wood because it's essential for crafting tools. This action was in progress because I	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 5. My inventory contained: wood: 1. In the past, I successfully navigated to a tree; I failed to share resources as I lacked inventory. On collaboration, Agent 0 and Agent 3 were working, so I needed to focus on advancing tools. I attempted to collect more wood because it is essential for crafting tools. This action was in progress because I need more wood. I planned to work towards my goal of

agent_id context info summary was actively working towards helping agents by sharing collecting it. I planned to resources as needed. work towards helping agents by first gathering resources and advancing tools. ### Current Experience - This is episoide 1. It is currently 5 steps into the episoide. You are at loaction [34 32]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 4: do. .

Collaboration: Need Your

Agent 0 is completing its task. You should focus on

Help!!!

agent_id	context	info	0	summary
	advancing your tools. Agent 3 is completing the task.			
	### Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
2%	7/350 [00:57<47:18,	8.27s/it]		

```
==== total step: 6 current st
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 7
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 4
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 39
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 7 current st
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 6
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 9
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 38
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
```

- For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;

Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect wood'

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 0. My inventory contained nothing. In the past, I successfully started the episode; I failed to act as there were no past actions. On collaboration, I monitored agents' needs, but no immediate help was necessary. I navigated to a tree because collecting wood is essential for advancing tools and helping other agents. This action was in progress because I needed to gather basic resources. I planned to work towards collecting wood because it's crucial for crafting the first tool and potentially helping other agents. ### Current Experience - This is episoide 1. It is currently 7 steps into the episoide. You are at loaction [34 29] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". ### Crafting Station Availability: - Table: still needs to be	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 7. My inventory contained nothing. In the past, I successfully navigated to a tree to start gathering wood; I failed to collect wood as the process was still in progress. On collaboration, I identified no immediate needs from other agents. I navigated, and now, I focused on performing the 'do' action to collect wood because it is required to advance tool crafting and enable support for other agents. This action was in progress because the collection process takes time. I planned to work towards the goal of collecting wood to make a wood pickaxe, preparing to help agent 0 by sharing resources once collected.

six_agent_mem_comm agent_id context info summary placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Ready* 'collect_wood' - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 0: Navigator to tree.. ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus

in progress

in progress

3 3

file:///Users/alberty/Downloads/six_agent_mem_comm.html

on advancing your tools.

in progress

agent_	id	context	info	summary
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
2%	8/350 [01:	:05<46:41, 8.19s/it	t]	

```
==== total step: 8 current st
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 37
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action do; current status: A
ctionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 7. My inventory contained nothing. In the past, I successfully navigated to a tree to start gathering wood; I failed to collect wood as the process was still in progress. On collaboration, I identified no immediate needs from other agents. I navigated, and now, I focused on performing the 'do' action to collect wood because it is required to advance tool crafting and enable support for other agents. This action was in progress because the collection process takes time. I planned to work towards the goal of collecting wood to make a wood pickaxe, preparing to help agent 0 by sharing resources once collected. ### Current Experience - This is episoide 1. It is currently 8 steps into the episoide. You are at loaction [34 29] Facing Direction: You are facing a player Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood. 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, stone_stonesword: 0, stonesword: 0, stonesword: 0, s	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: tree share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 8. My inventory contained 1 wood. In the past, I successfully navigated to a tree and collected wood; I failed to collect more because the process takes time. On collaboration, neither Agent 0 nor Agent 1 indicated they needed help, so I focused on advancing my tools. I navigated to collect wood because I needed it for crafting a wood pickaxe to ultimately assist other agents. This action succeeded, as I collected 1 wood. I planned to work towards collecting more wood to complete my tool advancement.

agent_id context info summary

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'collect_wood': everything is
 ready, should navigate to
 tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 7: do. .

Collaboration: Need Your Help!!!
Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your
ultimate goal is help_agent 0
and help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools
that are not needed by the
agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools.

If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need

	agent_id	context	info	summary
		help, you should focus on advancing your tools.		
3	3		long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 3. In Episode: 1; Timestep: 8. My inventory contained nothing. In the past, I successfully navigated but failed to collect wood due to misplaced navigation. On collaboration, I prioritized tool advancement as agents do not need help now. I attempted to navigate to a tree to gather wood because I required it to craft tools. This action was in progress because I did not reach a tree yet. I planned to work towards collecting wood because it's necessary for tool advancement when no agents require assistance.
		### Prerequisites Check:		

agent_id	context	info	summary
	- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 0: Navigator to tree		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task.		
	### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
3%	9/350 [01:17<48:39	, 8.56s/it]	

```
===== total step: 9 current st
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 36
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
ckaxe;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent_3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
2 3	2 3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 8. My inventory contained nothing. In the past, I successfully navigated but failed to collect wood due to misplaced navigation. On collaboration, I prioritized tool advancement as agents do not need help now. I attempted to navigate to a tree to gather wood because I required it to craft tools. This action was in progress because I did not reach a tree yet. I planned to work towards collecting wood because it's necessary for tool advancement when no agents require assistance. ### Current Experience - This is episoide 1. It is currently 9 steps into the episoide. You are at loaction [35 29] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Table: still needs to be placed Furnace: still needs to be placed Furnace: still needs to be placed.	in progress long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: not_applicable target_agent_id: -1	in progress This is agent 3. In Episode: 1; Timestep: 9. My inventory contained nothing. In the past, I successfully navigated towards trees but failed to collect wood. On collaboration, Agent 2 needs a wood pickaxe, but I lacked resources to assist currently. I collected wood because I required it for crafting tools. This action was in progress because I had just positioned to collect it. I planned to work towards collecting wood because it is necessary for both personal advancement and assisting other agents.

agent_id context info summary

Prerequisites Check:

12/3/24, 10:53 PM

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 0: Navigator to tree. ; in In step 8: Navigator to tree. .

Collaboration: Need Your Help!!! Agent 0 is completing its task.

You should focus on advancing your tools.
Agent 2 is working on 'collect_stone', Missing 1 wood_pickaxe;
If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working

besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools
that are not needed by the
agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help,

agent_ic	I	context	info	summary
	you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
3%	10/350 [01:2	.7<49:26, 8.73s/i	t]	

```
==== total step: 10 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 6
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 35
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
ckaxe;
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:</pre>
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_up; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	ir	nfo	summary
0	0	in progress	in progress		in progress
1	1	in progress	in progress		in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 8. My inventory contained 1 wood. In the past, I successfully navigated to a tree and collected wood; I failed to collect more because the process takes time. On collaboration, neither Agent 0 nor Agent 1 indicated they needed help, so I focused on advancing my tools. I navigated to collect wood because I needed it for crafting a wood pickaxe to ultimately assist other agents. This action succeeded, as I collected 1 wood. I planned to work towards collecting more wood to complete my tool advancement. ### Current Experience - This is episoide 1. It is currently 10 steps into the episoide. You are at loaction [34 28] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do".	long_term_goal: help_agent current_goal: make_wood_picka op: place_table navigate to: tree share: not_applicable target_agent_id: -		This is agent 2. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, I successfully navigated to and collected wood; I failed to make further progress as more resources are needed. On collaboration, neither Agent 0 nor Agent 1 requested help, so I focused on advancing my tools. I successfully placed a table to craft a wood pickaxe because I needed it to collect stone and assist others. This action succeeded as I had 1 wood. I planned to work towards 'make_wood_pickaxe' because it is required to advance my tools and help the team. In summary, I focused on advancing my tools, especially aiming to make a wood pickaxe, and I placed a table successfully to facilitate crafting. Looking ahead, I should continue to gather resources for further crafting.

agent_id context info summary

Attempted "navigate to a tree".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites

Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'collect_stone': Missing
- 1 wood_pickaxe;- To satisify the prerequiste, you made the following efforts recently towards
- collect_stone:- In step 8: Navigator to tree. .

Collaboration:
Need Your Help!!!
Agent 0 is completing
its task. You should
focus on advancing
your tools.

Agent 1 is completing the task.

Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share

resources/tools that are not needed by the

agent_id context info summary agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **3** 3 long_term_goal: This is agent 3. In Episode: 1; ### Last Experience Timestep: 10. My inventory help_agent Summary contained 1 wood. In the past, This is agent 3. In current_goal: I successfully collected wood Episode: 1; Timestep: 9. collect_wood but failed to help agents My inventory contained instantly due to insufficient nothing. In the past, I op: Navigator resources. On collaboration, successfully navigated Agent 2 needs a wood towards trees but failed navigate to: tree pickaxe, but I couldn't help to collect wood. On immediately due to lacking collaboration, Agent 2 share: wood. I navigated towards needs a wood pickaxe, not_applicable trees because I needed more but I lacked resources wood for crafting. This action to assist currently. I was in progress because the target_agent_id: -1 more wood is required to craft collected wood because I required it for a table and tools. I planned to crafting tools. This work towards helping Agent 2 action was in progress because sharing crafted tools because I had just speeds collaboration. positioned to collect it. I planned to work towards collecting wood because it is necessary for both personal advancement and assisting other agents. ### Current Experience - This is episoide 1. It is currently 10 steps into the episoide. You are at loaction [35 29]. - Facing Direction: You are facing a player. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1,

agent_id context info summary stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 9: do. . ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is working on 'collect_stone', Missing 1 wood_pickaxe; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is

agent_id	context	info	summary
agent_id	working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on	info	summary
	advancing your tools.		
4 4	### Last Experience Summary	long_term_goal: help_agent	This is agent 4. In Episode: 1; Timestep: 10. My inventory contained: wood: 1. In the

Last Experience Summary This is agent 4. In Episode: 1; Timestep: 5. My inventory contained: wood: 1. In the past, I successfully navigated to a tree; I failed to share resources as I lacked inventory. On collaboration, Agent 0

current_goal: collect_wood

op: Navigator

navigate to: tree

share: wood

target_agent_id: 0

This is agent 4. In Episode: 1; Timestep: 10. My inventory contained: wood: 1. In the past, I successfully navigated towards resources; I failed to gather sufficient wood. On collaboration, Agent 0 needed resources, so I prioritized gathering wood. I navigated to a tree because wood is necessary to help Agent 0 and advance my tools. This action was in progress because I

agent_id

and Agent 3 were context working, so I needed to

focus on advancing tools. I attempted to collect more wood because it is essential for crafting tools. This action was in progress because I need more wood. I planned to work towards my goal of helping agents by sharing resources as needed.

Current Experience - This is episoide 1. It is currently 10 steps into the episoide. You are at loaction [36 29]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to
a tree". Attempted "do".
Attempted "navigate to
a tree".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

info

needed more wood. I planned to work towards helping Agent 0 by gathering and sharing wood for crafting.

agent_id context info summary

- For immediate goal:
Cannot complete
'collect_wood':
everything is ready,
should navigate to tree;
- To satisify the
prerequiste, you made
the following efforts
recently towards
collect_wood:
- In step 5: Navigator
to tree. .

Collaboration:
Need Your Help!!!
Agent 0 is completing
its task. You should
focus on advancing
your tools.
Agent 3 is completing
the task.

Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

	agent_id		context	info		summary
5	5	in progress	in prog	ress	in progress	
	3% 	11/350	[01:41<52:07,	9.23s/it]		

```
==== total step: 11 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 5
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 34
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.place_table: 'place_table'>, <NavigationDesti
nationItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicabl</pre>
e'>, -1) with action place table; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
```

y, should navigate to tree;

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_ri ght; current status: ActionStatus.ALMOST_DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, I successfully navigated to and collected wood; I failed to make further progress as more resources are needed. On collaboration, neither Agent 0 nor Agent 1 requested help, so I focused on advancing my tools. I successfully placed a table to craft a wood pickaxe because I needed it to collect stone and assist others. This action succeeded as I had 1 wood. I planned to work towards 'make_wood_pickaxe' because it is required to advance my tools and help the team. In summary, I focused on advancing my tools, especially aiming to make a wood pickaxe, and I placed a table successfully to facilitate crafting. Looking ahead, I should continue to gather resources for further crafting. ### Current Experience - This is episoide 1. It is currently 11 steps into the episoide. You are at loaction [34 28] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "place_table". ### Crafting Station Availability: - Table: still needs to be placed. Euraces still needs to be placed.	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: not_applicable target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 11. My inventory contained 1 wood. In the past, I successfully navigated to a tree; I failed to place a table due to lack of wood and proper positioning on grass. On collaboration, neither agent required immediate help with current resources, so I focused on gathering wood. I collected more wood to enhance my inventory, aiming for future crafting and collaboration options. This action was in progress as I stayed oriented towards resource gathering. I planned to work towards 'help_agent' by preparing materials for sharing if requested.

- Furnace: still needs to be

agent_id context info summary

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table; need to place a table first, and Missing 1 wood, and navigate to grass to place it; To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 10: place_table. .

Collaboration: Need Your

Agent 0 is completing its task. You should focus on advancing your tools

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate goal
is help_agent 0 and help_agent 1.
You should prioritize helping agent

You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items.

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 10. My inventory contained: wood: 1. In the past, I successfully navigated towards resources; I failed to gather	long_term_goal: help_agent current_goal: collect_wood op: do	This is agent 4. In Episode: 1; Timestep: 11. My inventory contained wood: 1. In the past, I successfully navigated to trees and attempted resource

agent_id

context sufficient wood. On collaboration, Agent 0 needed resources, so I prioritized gathering wood. I navigated to a tree because wood is necessary to help Agent 0 and advance my tools. This action was in progress because I needed more wood. I planned to work towards helping Agent 0 by gathering and sharing wood for crafting. ### Current Experience - This is episoide 1. It is currently 11 steps into the episoide. You are at loaction [36 29]. - Facing Direction: You are facing a tree. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a

collection, but gathered limited wood. On collaboration, even though my primary task is to aid Agent 0. I couldn't fulfill their requirements yet. I navigated to a tree because I needed more wood to advance my tools and aid other agents. This action progressed as gathering wood is still underway. I planned to work towards collecting more wood to make a crafting table and possibly an iron pickaxe later, aiding my ability to help agents like Agent 0 as required by them, enhancing their and my resource

collection potential.

summary

info

navigate to: tree

not_applicable

target_agent_id:

share:

-1

tree".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 5: Navigator to tree.; in In step 10: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 3 is completing the task.

agent_id info context summary ### Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **5** 5 in progress in progress in progress 9.86s/it] 3%|| | 12/350 [01:58<55:32,

```
==== total step: 12 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 33
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table; need to place a table first, and Missing 1
wood, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, 0) with action d
o; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -1) with action
```

do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In Episode: ### Last Experience Summary place_table 1; Timestep: 12. My This is agent 0. In Episode: 1; inventory contained 1 Timestep: 4. My inventory wood. In the past, I current_goal: contained 1 wood. In the past, I collect_wood successfully navigated to a successfully navigated to a tree: I failed to collect tree; I failed to collect op: do additional wood. On additional wood. On collaboration, I was being collaboration, I was being aided navigate to: tree aided by Agent 1 with by Agent 1 with resource resource sharing. I sharina. share: navigated to a tree I navigated to a tree because I not_applicable because I needed more needed more wood to place a wood to place a table and table and craft a wood pickaxe. target_agent_id: craft a wood pickaxe. This This action was in progress, as action was in progress, as I -1 I could not collect enough could not collect enough wood. I planned to work wood. I planned to work towards placing a table towards placing a table because I need the crafting because I need the station for tool creation. crafting station for tool creation. ### Current Experience - This is episoide 1. It is currently 12 steps into the episoide. You are at loaction [30 24]. - Facing Direction: You are facing a tree. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_wood_pickaxe':

everything is ready, should navigate to table; need to

agent_id context info summary place a table first, and Missing 1 wood, and navigate to grass to place it; - For immediate goal: should work on long-term goal now. - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 4: Navigator to tree. . ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 in progress in progress in progress **2** 2 This is agent 2. In Episode: long_term_goal: ### Last Experience Summary 1; Timestep: 12. My help_agent This is agent 2. In Episode: 1; inventory contained 2 Timestep: 11. My inventory current_goal: wood. In the past, I contained 1 wood. In the past, I collect_wood successfully gathered successfully navigated to a wood; I failed to place a tree; I failed to place a table op: Navigator table due to incorrect due to lack of wood and proper positioning on grass. On positioning on grass. On collaboration, both agents navigate to: tree collaboration, neither agent 0 and 1 did not require required immediate help with immediate help, allowing share: not_applicable current resources, so I focused me to gather resources. I on gathering wood. navigated to a tree and I collected more wood to target_agent_id: collected wood to enhance enhance my inventory, aiming -1 crafting potential. This was for future crafting and in progress as I collected collaboration options. This wood for crafting action was in progress as I advancement. I planned to work towards 'help_agent' stayed oriented towards resource gathering. I planned by preparing adequate to work towards 'help_agent' materials for sharing once by preparing materials for possible. sharing if requested. ### Current Experience - This is episoide 1. It is currently 12 steps into the episoide. You are at loaction [34 28]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword:

0, stone_sword: 0, iron_sword:0.

Past Actions
The last 7 actions are:
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree". Attempted
"place_table". Attempted "do".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 11: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.
Do not share resources/tools

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help

	agent_id	conte	ext	info	summary
		the previous agent. !!!Determine your current goad based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3	3	in progress		in progress	in progress
4	4	### Last Experience Summar This is agent 4. In Episode: 1; Timestep: 11. My inventory contained wood: 1. In the pass successfully navigated to tree and attempted resource collection, but gathered limite wood. On collaboration, even though my primary task is to aid Agent 0, I couldn't fulfill their requirements yet. I navigated to a tree because needed more wood to advance my tools and aid other agents. This action progressed as gathering wood is still underway. I planned to work towards collecting more wood to make a crafting table and possibly an iron pickaxe later, aiding my ability to help agen like Agent 0 as required by them, enhancing their and my resource collection potential. ### Current Experience - This is episoide 1. It is currently 12 steps into the episoide. You are at loaction [36 29]. - Facing Direction: You are facing a grass. - Current Health Stats: health 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0 wood: 2, stone: 0, coal: 0, iron 0, diamond: 0, wood_pickaxe 0, stone_pickaxe: 0, wood_sword 0, stone_sword: 0, iron_sword 0, stone_sword: 0, iron_sword 0, stone_sword: 0, iron_sword 0, stone_sword: 0, iron_sword 0, attempted "navigate to a tree".	tt, I les ed les. des. des. des. des. des. des. des. d	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 12. My inventory contained wood: 2. In the past, I successfully navigated to trees; I failed to gather sufficient wood. On collaboration, I aimed to support Agent 0 by gathering and sharing wood. I navigated to gather wood because it is essential to place a table and craft tools, aiding both agents. This action was in progress as I needed more wood. I planned to work towards helping agents by improving my tools, aiming to support their resource needs.

"do".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 11: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 3 is completing the task.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

	agent_id		context	i	info	summary
5	5	in progress		in progress	in progress	
	4%	13/350 [[02:11<56:42,	10.10s/it]		

```
==== total step: 13 current s
tep: 13 =======
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 32
Player 0 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Ready* 'place table'
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In Episode: ### Last Experience Summary place_table 1; Timestep: 13. My This is agent 0. In Episode: 1; inventory contained 2 wood. Timestep: 12. My inventory In the past, I successfully current_goal: collected wood; I failed to contained 1 wood. In the past, place_table I successfully navigated to a place a table earlier. On tree; I failed to collect op: place_table collaboration, Agent 1 additional wood. On continued to support me collaboration, I was being with resource sharing. I navigate to: aided by Agent 1 with table placed a table because I resource sharing. I navigated needed a crafting station to to a tree because I needed share: craft a wood pickaxe. This more wood to place a table not_applicable action succeeded because I had sufficient wood. I and craft a wood pickaxe. This action was in progress, as I planned to work towards target_agent_id: crafting a wood pickaxe could not collect enough -1 wood. I planned to work because it's the next step in towards placing a table upgrading my tools. because I need the crafting station for tool creation. ### Current Experience - This is episoide 1. It is currently 13 steps into the episoide. You are at loaction [30 24]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed.

Prerequisites Check:
- For long-term goal:
Ready 'place_table'

- For immediate goal: should

work on long-term goal now To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 12: do ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 in progress ### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, 1 successfully collected wood but failed to help agents instantly due to insufficient resources. On collaboration, Agent 2 needs a wood pickaxe, but I couldn't help immediately due to lacking wood. In avigated towards trees because I needed more wood for crafting. This action was in progress because the more wood is required to craft a table and tools. I planned to work towards helping Agent 2 because sharing crafted tools speeds collaboration.
Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 in progress in progress in progress 2 2 in progress in progress in progress I make the progress in progress in progress I make the progress in progress in progress I make the progress I ma
2 2 in progress in progress in progress ### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, I successfully collected wood but failed to help agents instantly due to insufficient resources. On collaboration, Agent 2 needs a wood pickaxe, but I couldn't help immediately due to lacking wood. I navigated towards trees because I needed more wood for crafting. This action was in progress because the more wood is required to craft a table and tools. I planned to work towards helping Agent 2 because sharing crafted tools in progress In past, Tais In progress I
Last Experience Summary This is agent 3. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, I successfully collected wood but failed to help agents instantly due to insufficient resources. On collaboration, Agent 2 needs a wood pickaxe, but I couldn't help immediately due to lacking wood. I navigated towards trees because I needed more wood for crafting. This action was in progress because the more wood is required to craft a table and tools. I planned to work towards helping Agent 2 because Sharing crafted tools long_term_goal: help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 because I op: do lacked sufficient resources. On collaboration, laimed to help Agent 2 by gathering wood for crafting. I navigate to: tree help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 because I help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 because I help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 because I help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 by gathering wood for crafting. I navigate to: tree help Agent 2 by gathering wood for crafting. I navigated and collected wood because it's necessary for crafting and helping other agents. This action was in progress as more wood was needed for crafting a table. I planned to work towards helping Agent 2 by sharing resources once enough wood is gathered.
Last Experience Summary This is agent 3. In Episode: 1; Timestep: 10. My inventory contained 1 wood. In the past, I successfully collected wood but failed to help agents instantly due to insufficient resources. On collaboration, Agent 2 needs a wood pickaxe, but I couldn't help immediately due to lacking wood. I navigated towards trees because I needed more wood for crafting. This action was in progress because the more wood is required to craft a table and tools. I planned to work towards helping Agent 2 because Is the past, I successfully collected wood; I failed to help Agent 2 because I lacked sufficient resources. On collaboration, I aimed to help Agent 2 by gathering wood for crafting. I navigated to: tree help_agent 1; Timestep: 13. My inventory contained 1 wood. In the past, I successfully collected wood; I failed to help Agent 2 by gathering wood for crafting. I navigated and collected wood because it's necessary for crafting and helping other agents. This action was in progress as more wood was needed for crafting a table. I planned to work towards helping Agent 2 by sharing resources once enough wood is gathered.
Current Experience - This is episoide 1. It is currently 13 steps into the episoide. You are at loaction [35 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword:
0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to a
tree". Attempted "navigate to
a tree". Attempted "do".
Attempted "navigate to a
tree".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 10: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is working on 'collect_wood' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to

agent_id	context	info		summary
	the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
4%	14/350 [02:21<56:24	, 10.07s/it]		

```
==== total step: 14 current s
tep: 14 ======
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 31
Player 0 is doing (<ActionType.place_table: 'place_table'>, <NavigationDesti
nationItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicabl</pre>
e'>, -1) with action place table; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'place_table': Missing 2 wood;
  - For immediate goal: *Cannot complete* 'place_table': Missing 2 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
```

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













> agent_id context info 0 0 long_term_goal: This is agent 0. In Episode: ### Last Experience make_wood_pickaxe 1; Timestep: 14. My inventory contained Summary This is agent 0. In Episode: nothing. In the past, I current goal: 1; Timestep: 13. My collect_wood successfully placed a inventory contained 2 table; I failed to collect wood. In the past, I op: Navigator enough wood. On successfully collected collaboration, Agent 1 wood; I failed to place a navigate to: tree continued to support me table earlier. On with resource sharing. I collaboration, Agent 1 share: navigated to a tree not_applicable continued to support me because I needed wood to with resource sharing. I place a table. This action placed a table because I was in progress, as I target_agent_id: -1 needed a crafting station attempted to collect wood. to craft a wood pickaxe. I planned to work towards This action succeeded making a wood pickaxe because I had sufficient because it is needed to wood. I planned to work progress in crafting better towards crafting a wood tools. pickaxe because it's the step in upgrading my tools. ### Current Experience - This is episoide 1. It is currently 14 steps into the episoide. You are at loaction [30 24]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "place_table". ### Crafting Station Availability: - Table: still needs to be

placed.

be placed.

- Furnace: still needs to

summary

Prerequisites Check:

- For long-term goal:
- *Cannot complete*
 'place_table': Missing 2
 wood:
- For immediate goal:
- *Cannot complete*
 'place_table': Missing 2
 wood;
- To satisify the prerequiste, you made the following efforts recently towards place_table:
- In step 13: place_table. .

Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5

1 1 in progress

2 2

Last Experience Summarv This is agent 2. In Episode: 1; Timestep: 12. My inventory contained 2 wood. In the past, I successfully gathered wood: I failed to place a table due to incorrect positioning on grass. On collaboration, both agents 0 and 1 did not require immediate help, allowing me to gather resources. I navigated to a tree and collected wood to enhance crafting potential. This was in progress as I collected wood for crafting advancement. I planned to work towards 'help_agent' by preparing adequate materials for sharing once

Current Experience
- This is episoide 1. It is
currently 14 steps into the
episoide. You are at
loaction [34 27].

possible.

in progress

long_term_goal: help_agent

current_goal: collect_wood

op: do

navigate to: tree

share: not_applicable

target_agent_id: -1

in progress

This is agent 2. In Episode: 1; Timestep: 14. My inventory contained 2 wood. In the past, I successfully gathered wood; I failed to place a table due to incorrect positioning on grass. On collaboration, agents 0 and 1 did not require my immediate help, allowing me to focus on gathering resources. I attempted to collect wood from a nearby tree as I was facing it to improve my tool crafting capability. This was in progress because I needed more wood for crafting advancement. I planned to work towards 'help_agent,' focusing on advancing my tools since no immediate help was needed.

- Facing Direction: You are facing a tree.

- Current Health Stats: health: 9, food: 9, drink: 9,

energy: 9.

- Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0,

iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to a
tree". Attempted "do".
Attempted "navigate to a
tree". Attempted
"place_table". Attempted
"do". Attempted "navigate
to a tree".

Crafting Station Availability:

- Table: still needs to be placed.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 12: Navigator to tree. .

Collaboration: Need Your Help!!!
Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy You are agent 2. Your

agent_id context info summary ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing vour tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **3** 3 long_term_goal: This is agent 3. In Episode: ### Last Experience help_agent 1; Timestep: 14. My inventory contained 2 Summary This is agent 3. In Episode: current_goal: wood. In the past, I 1; Timestep: 13. My successfully collected collect_wood inventory contained 1 wood; I failed to help Agent wood. In the past, I op: Navigator 2 because I lacked enough successfully collected wood. On collaboration, I wood; I failed to help Agent navigate to: tree aimed to assist Agent 2 by 2 because I lacked gathering wood and sufficient resources. On crafting tools. I navigated share: wood collaboration, I aimed to to gather wood because it help Agent 2 by gathering target_agent_id: 2 is vital for crafting and wood for crafting. I supporting others. This navigated and collected action was in progress as wood because it's sufficient wood was still necessary for crafting and needed for crafting. I helping other agents. This planned to work towards action was in progress as helping Agent 2 by sharing more wood was needed for resources once I gathered crafting a table. I planned enough wood. to work towards helping Agent 2 by sharing resources once enough wood is gathered. ### Current Experience - This is episoide 1. It is currently 14 steps into the episoide. You are at

agent_id	context	info	summary
	loaction [35 27] Facing Direction: You are facing a player Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are:		
	Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do".		
	### Crafting Station Availability: - Table: still needs to be placed Furnace: still needs to be placed.		
	### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 13: do		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is working on 'collect_wood' If he needs any tool, work on the tool and share with		

agent_id context info summary him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

4 4

Last Experience Summary This is agent 4. In Episode: 1; Timestep: 12. My inventory contained wood: 2. In the past, I successfully navigated to trees; I failed to gather sufficient wood. On collaboration, I aimed to support Agent 0 by gathering and sharing wood. I navigated to gather wood because it is essential to place a table and craft tools, aiding both agents. This action was in

long_term_goal: help_agent

current_goal: collect_wood

op: Navigator

navigate to: tree

share: wood

target_agent_id: 0

This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. I navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood

info agent_id context summary progress as I needed more to support their resource wood. I planned to work needs. towards helping agents by improving my tools, aiming to support their resource needs. ### Current Experience - This is episoide 1. It is currently 14 steps into the episoide. You are at loaction [36 27]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: still needs to be placed. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;

- To satisify the

prerequiste, you made the

agent_id info context summary following efforts recently towards collect_wood: - In step 12: Navigator to tree. . ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 3 is completing the task. ### Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **5** 5 in progress in progress in progress

4%|| | 15/350 [02:44<1:01:11, 10.96s/it]

```
==== total step: 15 current s
tep: 15 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 30
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': Missing 1 woo
d;
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 2) with action move_u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_ri ght; current status: ActionStatus.ALMOST_DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 14. My inventory contained 2 wood. In the past, I successfully gathered wood; I failed to place a table due to incorrect positioning on grass. On collaboration, agents 0 and 1 did not require my immediate help, allowing me to focus on gathering resources. I attempted to collect wood from a nearby tree as I was facing it to improve my tool crafting capability. This was in progress because I needed more wood for crafting advancement. I planned to work towards 'help_agent,' focusing on advancing my tools since no immediate help was needed. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide. You are at loaction [34 27] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do".	In progress long_term_goal: help_agent current_goal: make_wood_pickaxe op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 15. My inventory contained 3 wood. In the past, I successfully gathered some wood; I failed to place a table correctly. On collaboration, agents did not require immediate help, allowing me to focus on gathering resources. I navigated to gather more wood because it was necessary for advancing my tool crafting capability. This action was in progress due to a constant need for more resources. I planned to work towards 'help_agent' by improving my tools and eventually sharing resources and tools as needed.

"do". Attempted "navigate to a tree". Attempted "do".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'collect_wood': everything is
 ready, should navigate to
 tree:
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 14: do. .

Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 1 is completing the task.

Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

Recosider how you can help

the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. 3 3 in progress in progress long_term_goal: help_agent	### Past Actions ### Past Actions ### Past Actions Improgress		agent_id	context	info	summary
### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. I navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their resource needs. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide. You are at loaction [36 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, wood_sword: 0, stone_pickaxe: 0, wood_sword: 0, stone_sword: 0, stone_sword: 0, stone_sword: 0, termt_goal: help_agent help_agent help_agent by culceture.goal: current_goal: help_agent help_agent help_agent by inventory contained wood. On collaboration, I exit rees but failed to gather additional wood. On collaboration, I prepared to help Agent 0 by sharing wood. I attempted to collect wood again because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood, Iplanned to work towards helping agents by collecting wood to support their resource needs.	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. I navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their resource needs. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide 5. You are at loaction [36 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, wood_sword: 0, stone_pickaxe: 0, wood_sword: 0, stone_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a			!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on		
### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. I navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their resource needs. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide. You are at loaction [36 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "advigate to a tree". Attempted "lavigate to a	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated to wards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. 1 navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their resource needs. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide. You are at loaction [36 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a	3	3	in progress	in progress	in progress
tree". Attempted "navigate		4	4	Summary This is agent 4. In Episode: 1; Timestep: 14. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I was prepared to support Agent 0 by sharing wood. I navigated to gather wood because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their resource needs. ### Current Experience - This is episoide 1. It is currently 15 steps into the episoide. You are at loaction [36 27] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 9, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a	help_agent current_goal: collect_wood op: do navigate to: tree share: wood	Episode: 1; Timestep: 15. My inventory contained wood: 2. In the past, I successfully navigated towards trees but failed to gather additional wood. On collaboration, I prepared to help Agent 0 by sharing wood. I attempted to collect wood again because it was crucial for placing a table and crafting tools. This action was in progress, as I still needed more wood. I planned to work towards helping agents by collecting wood to support their

to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 12: Navigator to tree.; in In step 14: Navigator to tree..

Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 3 is completing the task.

Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

agent_id	context	inf	o	summary
	Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
5%	16/350 [03:05<1:0	4:29, 11.58s/it]		

```
==== total step: 16 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 29
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': Missing 1 woo
d;
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 2) with action move_u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action do; current status: A ctionStatus.DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'collect_wood': everything is
 ready, should navigate to
 tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 15: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.
Agent 3 is completing the task.

Collaboration Policy
You are agent 4. Your
ultimate goal is help_agent 0
and help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools
that are not needed by the
agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools.

If you are not sure what to do, share stone to agent 0.
Recosider how you can help the previous agent.
!!!Determine your current goal based on agents who need help. If they don't need

agent_id	conf	text	info	summary
	help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
5%	17/350 [03:12<1	:02:53, 11.33s	/it]	

```
===== total step: 17 current s
tep: 17 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 28
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': Missing 1 woo
d;
  - For immediate goal: *Ready* 'collect wood'
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 2) with action move_u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_wood_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 17. My inventory Timestep: 14. My inventory contained nothing. In current_goal: the past, I successfully contained nothing. In the past, collect_wood I successfully placed a table; I placed a table; I failed failed to collect enough wood. op: do to collect enough On collaboration, Agent 1 wood. On continued to support me with collaboration, Agent 1 navigate to: tree resource sharing. I navigated continued to support to a tree because I needed share: me with resource wood to place a table. This not_applicable sharing. I attempted to action was in progress, as I collect wood by facing attempted to collect wood. I a tree because it is target_agent_id: -1 planned to work towards needed to make a making a wood pickaxe wood pickaxe. This because it is needed to action was in progress, progress in crafting better as I attempted to tools. collect wood. I planned to work towards ### Current Experience making a wood pickaxe - This is episoide 1. It is because it is needed to currently 17 steps into the progress in crafting episoide. You are at loaction better tools. [31 23]. - Facing Direction: You are facing a tree. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "place_table". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check:

- For long-term goal: *Cannot

'make_wood_pickaxe': Missing

complete*

	agent_id	context	inf	0	summary
		1 wood; - For immediate goal: *Ready* 'collect_wood' - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 14: Navigator to tree. ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5			
1	1	in progress	in progress	in progress	
2	2	in progress	in progress	in progress	
3	3	in progress	in progress	in progress	
4	4	in progress	in progress	in progress	
5	5	in progress	in progress	in progress	
	5%	18/350 [03:29<1:04:3	80, 11.66s/it]		

```
==== total step: 18 current s
tep: 18 =======
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 27
Player 0 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move_up; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 2) with action move ri
ght; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_wood_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 18. My inventory Timestep: 17. My inventory contained 1 wood. In current goal: contained nothing. In the past, make_wood_pickaxe the past, I successfully I successfully placed a table; I placed a table; I failed failed to collect enough wood. op: Navigator to collect enough On collaboration, Agent 1 wood. On collaboration, continued to support me with navigate to: table Agent 1 continued to resource sharing. I attempted support me with to collect wood by facing a share: resource sharing. I tree because it is needed to not_applicable attempted to collect make a wood pickaxe. This wood by facing a tree action was in progress, as I because it is needed to target_agent_id: -1 attempted to collect wood. I make a wood pickaxe. planned to work towards This action is in making a wood pickaxe progress, but I need to because it is needed to navigate to the table to progress in crafting better craft. I planned to work tools. towards making a wood pickaxe because it is ### Current Experience needed to progress in - This is episoide 1. It is crafting better tools. I currently 18 steps into the navigated to the table episoide. You are at loaction with success. [31 23]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "place_table". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again.

- Furnace: still needs to be

Prerequisites Check:
- For long-term goal: *Cannot

placed.

agent_id context info summary complete* 'make_wood_pickaxe': everything is ready, should navigate to table: - For immediate goal: should work on long-term goal now. - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 17: do. . ### Collaboration: Need Your You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 This is agent 1. In long_term_goal: ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 1. In Episode: 1; 18. My inventory Timestep: 5. My inventory contained nothing. In current_goal: contained nothing. In the past, collect_wood the past, I I successfully navigated unsuccessfully tried to towards a tree; I failed to collect wood by facing op: do collect wood because I hadn't a tree but made no reached it vet. On navigate to: tree progress yet. On collaboration, I was focused on collaboration, I aimed helping Agent 0 by attempting share: wood to help Agent 0 by to gather wood. I navigated to gathering and sharing a tree because it is necessary wood, though I lacked target_agent_id: 0 to gather wood to craft resources. I navigated essential tools and to assist and did actions facing a Agent 0. This action was in tree to collect wood, progress as I was positioning essential for tool myself closer to the tree. I crafting and helping planned to work towards Agent 0. This action helping Agent 0 by collecting was in progress as I and sharing wood because continued trying to they require it for their collect wood. I planned progression. to work towards helping Agent 0 ### Current Experience because it's necessary - This is episoide 1. It is for their task progress. currently 18 steps into the episoide. You are at loaction [33 24]. - Facing Direction: You are facing a tree. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0,

iron_pickaxe: 0, wood_sword:
0, stone_sword: 0, iron_sword:

agent_id	context	info	summary
	### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in		
	your inventory For immediate goal: *Ready* 'collect_wood' - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 4: do.; in In step 5: Navigator to tree		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools.		
	### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long- term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
2 2	in progress	in progress	in progress
3 3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 14. My inventory contained 2 wood. In the past, I successfully collected wood;	long_term_goal: help_agent current_goal: collect_wood	This is agent 3. In Episode: 1; Timestep: 18. My inventory contained 2 wood. In the past, I successfully navigated to a tree and

agent_id context info summary I failed to help Agent 2 op: do attempted to collect because I lacked enough wood; however, I failed wood. On collaboration, I to move beyond this navigate to: tree aimed to assist Agent 2 by action. On gathering wood and crafting share: wood collaboration, I aimed tools. I navigated to gather to assist Agent 2 by wood because it is vital for focusing on wood target_agent_id: 2 crafting and supporting collection for crafting others. This action was in and resource sharing. I progress as sufficient wood continued to gather was still needed for crafting. I wood because it is planned to work towards essential for current helping Agent 2 by sharing tool demands and resources once I gathered teamwork. This action was in progress due to enough wood. the need for more wood ### Current Experience in my inventory. I - This is episoide 1. It is planned to work currently 18 steps into the towards helping Agent episoide. You are at loaction 2 and potentially Agent 0 by collecting and [35 24]. - Facing Direction: You are sharing necessary facing a tree. resources. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal:

Ready 'collect_wood'

agent_id	context	inf	o summary
	- To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 14: Navigator to tree		
	### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task.		
	### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
5%	19/350 [03:48<1:06:2	24, 12.04s/it]	

```
==== total step: 19 current s
tep: 19 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 26
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Ready* 'make_wood_pickaxe'
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action do; current status: A
ctionStatus.DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.WOOD: 'wood'>, 2) with action do; current status: A
ctionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_wood_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 19. My inventory Timestep: 18. My inventory contained 1 wood. In current goal: contained 1 wood. In the past, I the past, I successfully make_wood_pickaxe successfully placed a table; I placed a table; I failed failed to collect enough wood. to collect enough wood On collaboration, Agent 1 make_wood_pickaxe for crafting beyond continued to support me with that. On collaboration, resource sharing. I attempted Agent 1 supported me navigate to: to collect wood by facing a not_applicable with resource sharing. I tree because it is needed to navigated to the table make a wood pickaxe. This share: to craft a wood pickaxe action is in progress, but I not_applicable because it is needed to need to navigate to the table to progress with better craft. I planned to work target_agent_id: -1 tools. This action was towards making a wood in progress. I planned pickaxe because it is needed to work towards to progress in crafting better crafting a wood tools. I navigated to the table pickaxe as a necessary with success. step for future tool upgrades. ### Current Experience - This is episoide 1. It is currently 19 steps into the episoide. You are at loaction [31 23]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "place_table". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a table". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again.

- Furnace: still needs to be

Prerequisites Check:

placed.

agent_id context info summary - For long-term goal: *Ready* 'make_wood_pickaxe' - For immediate goal: should work on long-term goal now. To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe: - In step 18: Navigator to table. . ### Collaboration: Need Your You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 This is agent 1. In **1** 1 long_term_goal: ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 1. In Episode: 1; 19. My inventory Timestep: 18. My inventory contained 1 wood. In current_goal: contained nothing. In the past, collect_wood the past, I attempted to I unsuccessfully tried to collect collect wood but faced wood by facing a tree but a grass instead due to op: Navigator made no progress yet. On misnavigation. I aimed collaboration, I aimed to help to help Agent 0 by navigate to: tree Agent 0 by gathering and gathering and sharing sharing wood, though I lacked share: wood but lacked resources. I navigated and did not_applicable sufficient resources. I actions facing a tree to collect navigated and did wood, essential for tool actions facing a tree to target_agent_id: -1 crafting and helping Agent 0. collect wood, but my This action was in progress as I progress was slow. I continued trying to collect planned to work wood. I planned to work towards helping Agent towards helping Agent 0 0 to aid in making a because it's necessary for wood pickaxe. This action was in progress their task progress. as I needed to focus on ### Current Experience correctly navigating to - This is episoide 1. It is a tree. currently 19 steps into the episoide. You are at loaction [33 24]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword:

0.

agent_id context info summary

Past Actions
The last 7 actions are:
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree". Attempted
"do".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 18: do. .

tools.

Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe'

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your

Collaboration Policy
You are agent 1. Your ultimate
goal is help_agent 0. You longterm goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.
!!!Determine your current goal

based on agents who need help. If they don't need help,

agent_id context info summary

you should focus on advancing
your tools.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 15. My inventory contained 3 wood. In the past, I successfully gathered some wood; I failed to place a table correctly. On collaboration, agents did not require immediate help, allowing me to focus on gathering resources. I navigated to gather more wood because it was necessary for advancing my tool crafting capability. This action was in progress due to a constant need for more resources. I planned to work towards 'help_agent' by improving my tools and eventually sharing resources and tools as needed.

Current Experience

- This is episoide 1. It is currently 19 steps into the episoide. You are at loaction [34 24].
- Facing Direction: You are facing a tree.
- Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "do". Attempted
"navigate to a tree". Attempted "do".
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

long_term_goal: help_agent

current_goal:
 make_wood_pickaxe

op: Navigator

navigate to: tree

share: wood_pickaxe

target_agent_id: 0

This is agent 2. In Episode: 1; Timestep: 19. My inventory contained 3 wood. In the past, I successfully gathered wood and attempted to place_table; I failed to place it correctly earlier but now plan to focus on crafting. On collaboration, I realized Agent 0 needs a wood_pickaxe. I navigated to the table to make a wood_pickaxe because it's crucial for helping Agent 0. This action was in progress due to needing to create the pickaxe first. I planned to work towards 'help_agent' by crafting and sharing necessary tools with other agents.

agent_id context info summary

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

- For immediate goal: *Cannot complete*
'make_wood_pickaxe': everything is ready, should navigate to table;

- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 15: Navigator to tree.

•

Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe'

.

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need

agent_id context info summary help. If they don't need help, you should focus on advancing your tools. **3** 3 long_term_goal: This is agent 3. In ### Last Experience Summary Episode: 1; Timestep: help_agent This is agent 3. In Episode: 1; 19. My inventory Timestep: 18. My inventory current_goal: share contained 3 wood. In contained 2 wood. In the past, the past, I successfully I successfully navigated to a gathered wood facing a op: share tree and attempted to collect tree; I failed to place a wood; however, I failed to navigate to: furnace. On move beyond this action. On not_applicable collaboration, I collaboration, I aimed to assist prioritized Agent 0's Agent 2 by focusing on wood share: wood needs and planned to collection for crafting and share my resources to resource sharing. I continued help with tool crafting. I target_agent_id: 0 to gather wood because it is shared wood because essential for current tool Agent 0 needed it for demands and teamwork. This crafting a wood action was in progress due to pickaxe. This action the need for more wood in my succeeded because I inventory. I planned to work had the necessary towards helping Agent 2 and wood. I planned to potentially Agent 0 by work towards helping collecting and sharing Agent 0 because the necessary resources. collaboration policy prioritizes direct ### Current Experience assistance. - This is episoide 1. It is currently 19 steps into the episoide. You are at loaction [35 24]. - Facing Direction: You are facing a player. - Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. - Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table

agent_id context info summary again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 18: do. . ### Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

!!!Determine your current goal based on agents who need

agent_id context info summary

help. If they don't need help,
you should focus on advancing
your tools.

4 4

Last Experience Summary This is agent 4. In Episode: 1; Timestep: 16. My inventory contained wood: 3. In the past, I successfully started collecting wood but failed to gather enough. On collaboration, I prepared to help Agent 0 and Agent 3 by sharing resources. I navigated towards a tree to collect wood because it was crucial for advancing tools and helping others. This action was in progress as I still needed to face the tree correctly. I planned to work towards helping agents by collecting wood to support resource needs.

Current Experience

- This is episoide 1. It is currently 19 steps into the episoide. You are at loaction [36 24].
- Facing Direction: You are facing a grass.
- Current Health Stats: health: 9, food: 9, drink: 9, energy: 9. Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree". Attempted
"navigate to a tree". Attempted
"do". Attempted "do". Attempted
"do". Attempted "navigate to a tree".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.

long_term_goal: help_agent

current_goal: collect_wood

op: Navigator

navigate to: tree

share: wood

target_agent_id: 0

This is agent 4. In Episode: 1; Timestep: 19. My inventory contained wood: 3. In the past, I successfully navigated towards targets but failed to gather enough materials due to improper facing direction. On collaboration, I prioritized helping Agent 0 by planning to collect and share necessary resources. I navigated to a tree to collect wood because it was essential for crafting a wood pickaxe to support Agent 0. This action was in progress since I had not yet collected the wood. I planned to work towards helping Agent 0 by gathering enough wood to make a wood pickaxe.

agent_id context info summary

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 16: Navigator to tree.

•

Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe'

.

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 3 is completing the task.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need

agent_id	context	i	nfo	summary
	help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
6%	20/350 [04:06<1:07:	46, 12.32s/it]		

```
==== total step: 20 current s
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 25
Player 0 is doing (<ActionType.make_wood_pickaxe: 'make_wood_pickaxe'>, <Nav
igationDestinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.NO</pre>
T_APPLICABLE: 'not_applicable'>, -1) with action make_wood_pickaxe; current
status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: Wood pickaxe is already made.
  - For immediate goal: Wood pickaxe is already made.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD_PICKAXE: 'wood_pickaxe'>, 0) wit
h action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.WOOD: 'wood'>, 0) with act
ion noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info 0 0 long_term_goal: ### Last Experience Summary make_stone_pickaxe This is agent 0. In Episode: 1; Timestep: 19. My inventory current_goal: contained 1 wood. In the past, I collect_stone successfully placed a table; I failed to collect enough wood op: Navigator for crafting beyond that. On collaboration, Agent 1 navigate to: stone supported me with resource sharing. I navigated to the share: not_applicable table to craft a wood pickaxe because it is needed to progress with better tools. This target_agent_id: -1 action was in progress. I planned to work towards crafting a wood pickaxe as a necessary step for future tool upgrades. ### Current Experience - This is episoide 1. It is currently 20 steps into the episoide. You are at loaction [31 23]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 9, drink: 8, energy: 9. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "place_table". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be

This is agent 0. In Episode: 1; Timestep: 20. My inventory contained 1 wood and 1 wood_pickaxe. In the past, I successfully placed a table; I failed to collect enough wood for crafting beyond that. On collaboration, Agent 1 supported me with resource sharing. I crafted a wood pickaxe because it is needed to progress with better tools. This action was in progress because more materials are required. I planned to work towards making a stone pickaxe because it is the next step in tool advancement.

summary

placed.

Prerequisites Check:
- For long-term goal: Wood

agent_id context info summary pickaxe is already made. - For immediate goal: Wood pickaxe is already made. To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe: - In step 19: make_wood_pickaxe. . ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 in progress in progress in progress **2** 2 This is agent 2. In long_term_goal: ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 2. In Episode: 1; 20. My inventory Timestep: 19. My inventory contained 3 wood. In current_goal: contained 3 wood. In the past. make_wood_pickaxe the past, I successfully I successfully gathered wood gathered wood and and attempted to place_table; I op: Navigator attempted to failed to place it correctly place_table; I failed to earlier but now plan to focus place it correctly navigate to: on crafting. On collaboration, I not_applicable earlier but now plan to realized Agent 0 needs a focus on crafting. On wood_pickaxe. I navigated to share: collaboration, I the table to make a not_applicable recognized Agent 0 wood_pickaxe because it's needs a crucial for helping Agent 0. wood_pickaxe. I target_agent_id: -1 This action was in progress navigated to the table due to needing to create the to make a wood pickaxe first. I planned to work pickaxe because it's crucial for helping towards 'help_agent' by crafting and sharing necessary Agent 0. This action tools with other agents. was in progress due to needing to create the ### Current Experience pickaxe first. I planned - This is episoide 1. It is to work towards currently 20 steps into the 'help_agent' by episoide. You are at loaction crafting and sharing [34 24]. necessary tools with - Facing Direction: You are other agents. facing a tree. - Current Health Stats: health: 9, food: 9, drink: 8, energy: 9. - Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

agent_id context info summary

Past Actions
The last 7 actions are:
Attempted "navigate to a tree".
Attempted "place_table".
Attempted "do". Attempted
"navigate to a tree". Attempted
"do". Attempted "navigate to a tree". Attempted "navigate to a tree".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete*
 'make_wood_pickaxe': everything is ready, should navigate to table;
 To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 19: Navigator to tree.

Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe'

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your

tools.
Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should

prioritize helping agent 0.
You long-term goal should be

You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3

Last Experience Summary This is agent 3. In Episode: 1; Timestep: 19. My inventory contained 3 wood. In the past, I successfully gathered wood facing a tree; I failed to place a furnace. On collaboration, I prioritized Agent 0's needs and planned to share my resources to help with tool crafting. I shared wood because Agent 0 needed it for crafting a wood pickaxe. This action succeeded because I had the necessary wood. I planned to work towards helping Agent 0 because the collaboration policy prioritizes direct assistance.

Current Experience
- This is episoide 1. It is
currently 20 steps into the
episoide. You are at loaction

- Facing Direction: You are facing a grass.

[35 24].

Current Health Stats: health:
9, food:
9, drink:
8, energy:
9.
Current Inventory: sapling:
0, wood:
2, stone:
0, coal:
0, iron:
0, diamond:
0, wood_pickaxe:

0, stone_pickaxe: 0,

iron_pickaxe: 0, wood_sword:
0, stone_sword: 0, iron_sword:

long_term_goal: help_agent

current_goal: share

op: Navigator

navigate to: tree

share: not_applicable

target_agent_id: -1

This is agent 3. In Episode: 1; Timestep: 20. My inventory contained 2 wood. In the past, I successfully gathered wood facing a tree; I failed to place a furnace. On collaboration, I prioritized Agent 0's needs and planned to share my resources to help with tool crafting. I shared wood because Agent 0 needed it for crafting a wood pickaxe. This action succeeded because I had the necessary wood. I planned to work towards helping Agent 0 because the collaboration policy prioritizes direct assistance. I shared wood because Agent 0 needed it for crafting. This action succeeded. My plan focused on helping Agent 0 by providing necessary resources. I will continue sharing if needed and navigate to gather more

info agent_id context summary 0. resources to support our crafting efforts. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "share wood with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 19: share wood to target agent. . ### Collaboration: Need Your Help!!! Agent 0 is completing 'make_wood_pickaxe' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should

prioritize helping agent 0.

agent_id	context	iı	nfo	summary
	You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
6%	21/350 [04:24<1:08:	56, 12.57s/it]		

```
==== total step: 21 current s
tep: 21 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 21
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 2/knowledge graph 1.html
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 24
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'n</pre>
ot applicable'>, -1) with action noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_le ft; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	inf	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 19. My inventory contained 1 wood. In the past, I attempted to collect wood but faced a grass instead due to misnavigation. I aimed to help Agent 0 by gathering and sharing wood but lacked sufficient resources. I navigated and did actions facing a tree to collect wood, but my progress was slow. I planned to work towards helping Agent 0 to aid in making a wood pickaxe. This action was in progress as I needed to focus on correctly navigating to a tree. ### Current Experience - This is episoide 1. It is currently 21 steps into the episoide. You are at loaction [33 23] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 9, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". **Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: ### Prerequisites Check:	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: not_applicable target_agent_id: -1	This is agent 1. In Episode: 1; Timestep: 21. My inventory contained 1 wood. In the past, I successfully navigated to a tree; I failed to navigate accurately earlier. On collaboration, I intended to collect stone to help Agent 0, but prioritized collecting wood first. I collected wood because it's essential for crafting initial tools. This action was in progress as I faced a tree, ready for collection. I planned to work towards helping Agent 0 because sharing resources accelerates joint progress towards the diamond.

agent_id context info summary - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if

- you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 19: Navigator to tree. .

Collaboration: Need Your Help!!!

While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately.

Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 20. My inventory contained 3 wood. In the past, I successfully gathered wood and attempted to place_table; I failed to place it correctly earlier but now plan to focus on crafting. On collaboration, I recognized Agent 0 needs a wood_pickaxe. I navigated to the table to make a wood pickaxe because it's crucial for helping Agent 0. This action was in progress due to needing to create the pickaxe first. I planned to work towards 'help_agent' by crafting and sharing necessary tools with other agents.

Current Experience - This is episoide 1. It is currently 21 steps into the episoide. You are at loaction long_term_goal: help_agent

current_goal: make_wood_pickaxe

op: Navigator

navigate to: table

share: wood_pickaxe

target_agent_id: 0

This is agent 2. In Episode: 1; Timestep: 21. My inventory contained 3 wood. In the past, I successfully gathered wood and set the plan to craft a wood pickaxe; I faced some issues in precise navigation but managed progress. On collaboration, I recognized that Agent 0 requires a wood_pickaxe. I navigated towards crafting the wood pickaxe to support Agent 0. This action was in progress due to the necessity of crafting tools correctly. I planned to work towards 'help_agent' by crafting and sharing the wood pickaxe because

info agent_id context summary [34 24]. it's crucial for our - Facing Direction: You are combined progress. facing a tree. - Current Health Stats: health: 9, food: 9, drink: 8, energy: 9. - Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "place_table". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a not_applicable". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table; - To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe: - In step 19: Navigator to tree.; in In step 20: Navigator to not_applicable. . ### Collaboration: Need Your Help!!! Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone; He is focusing on 'collect_stone', everything is

ready, should navigate to

stone;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is working on 'collect_wood' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3	in progress	in progress	in progress
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
6% ▮	22/350 [04:37<1:0	8:50. 12.59s/itl	

```
==== total step: 22 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 5
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 23
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.WOOD PICKAXE: 'wood pickaxe'>, 0) w
ith action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_u p; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html

Knowledge graph saved to results/agent_4/knowledge_graph_1.htm
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 21. My inventory contained 1 wood. In the past, I successfully navigated to a tree; I failed to navigate accurately earlier. On collaboration, I intended to collect stone to help Agent 0, but prioritized collecting wood first. I collected wood because it's essential for crafting initial tools. This action was in progress as I faced a tree, ready for collection. I planned to work towards helping Agent 0 because sharing resources accelerates joint progress towards the diamond. ### Current Experience - This is episoide 1. It is currently 22 steps into the episoide. You are at loaction [33 23] Facing Direction: You are facing a player Current Health Stats: health: 9, food: 9, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 9, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent 1. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully navigated and collected wood after several attempts; I failed initially to face the correct direction due to repeated movement errors. On collaboration, I aimed to collect stone for Agent 0 but continued working on basics first. I navigated towards stone because sharing materials is critical to support Agent 0. This action was in progress as I prepared to find stone. I planned to work towards helping Agent 0 with stone to aid our shared diamond mining goal.

agent_id context info summary - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 21: do. . ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone. **2** 2 in progress in progress in progress **3** 3 long_term_goal: This is agent 3. In ### Last Experience Summary help_agent Episode: 1; Timestep: 22. This is agent 3. In Episode: 1; My inventory contained 2 Timestep: 20. My inventory wood. In the past, I current_goal: successfully gathered contained 2 wood. In the past, I share successfully gathered wood wood and shared it with facing a tree; I failed to place a op: Navigator Agent 0: I failed to furnace. On collaboration, I provide stone for Agent prioritized Agent 0's needs and navigate to: 0's crafting needs. On planned to share my resources collaboration, I stone to help with tool crafting. I recognized the needs of shared wood because Agent 0 share: Agent 0 and planned to needed it for crafting a wood not_applicable provide necessary pickaxe. This action succeeded materials for tool making. because I had the necessary I shared wood to help target_agent_id: wood. I planned to work towards -1 Agent 0. This action helping Agent 0 because the succeeded because I had collaboration policy prioritizes the necessary resource. I direct assistance. planned to navigate to I shared wood because Agent 0 stone to assist Agent 0 in needed it for crafting. This making a stone_pickaxe because it is critical for action succeeded. My plan focused on helping Agent 0 by our collaborative providing necessary resources. I progress. will continue sharing if needed and navigate to gather more resources to support our crafting efforts.

Current Experience

- This is episoide 1. It is currently 22 steps into the episoide. You are at loaction [34 23].
- Facing Direction: You are facing a player.
- Current Health Stats: health: 9, food: 9, drink: 8, energy: 9.
 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword:

0, iron_sword: 0.

a tree".

Past Actions
The last 7 actions are:
Attempted "do". Attempted
"navigate to a tree". Attempted
"do". Attempted "navigate to a
tree". Attempted "do".
Attempted "share wood with
agent 0". Attempted "navigate to

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
 To satisify the prerequiste, you
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 20: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone:

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on,

agent_id	context	info		summary
	you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
7% ▮	24/350 [04:47<1:05:04	, 11.98s/it]		

```
==== total step: 23 current s
tep: 23 =======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 19
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 23
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 22
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 5
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 22
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.WOOD PICKAXE: 'wood pickaxe'>, 0) w
ith action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent_3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
```

aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_u p; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;

7%|**|** | 25/350 [04:47<1:02:19, 11.51s/it]

```
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 22
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 21
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.WOOD PICKAXE: 'wood pickaxe'>, 0) w
ith action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
 - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
 - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
 - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 25 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
```

length route 17

| 26/350 [04:47<59:47, 11.07s/it]

```
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 21
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 19
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 20
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.WOOD PICKAXE: 'wood pickaxe'>, 0) w
ith action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u

```
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicabl</pre>
e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 26 current s
tep: 26 ========
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 1
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 19
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
```

Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.WOOD_PICKAXE: 'wood_pickaxe'>, 0) w ith action move_left; current status: ActionStatus.ALMOST_DONE Knowledge graph saved to results/agent_2/knowledge_graph_1.html agent 2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'make_wood_pickaxe'

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_right; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_3/knowledge_graph_1.html agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_up; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 21. My inventory contained 3 wood. In the past, I successfully gathered wood and set the plan to craft a wood pickaxe; I faced some issues in precise navigation but managed progress. On collaboration, I recognized that Agent 0 requires a wood_pickaxe. I navigated towards crafting the wood pickaxe to support Agent 0. This action was in progress due to the necessity of crafting tools correctly. I planned to work towards 'help_agent' by crafting and sharing the wood pickaxe because it's crucial for our combined progress. ### Current Experience - This is episoide 1. It is currently 26 steps into the episoide. You are at loaction [31 23] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 8, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted	long_term_goal: help_agent current_goal: make_wood_pickaxe op: make_wood_pickaxe navigate to: not_applicable share: not_applicable target_agent_id: -1	This is agent [2]. In Episode: [1]; Timestep: [26]. My inventory contained [3 wood]. In the past, I successfully gathered wood and set the plan to craft a wood pickaxe; I failed to navigate precisely to trees at times. On collaboration, Agent 0 required stone which I was unable to provide yet. I [crafted a wood pickaxe] because [it was necessary to advance my tools and aid other agents]. This action [succeeded]. I planned to work towards [helping other agents] because [it's part of the collaboration strategy].

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready* 'make_wood_pickaxe'
- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 19: Navigator to tree.; in In step 20: Navigator to not_applicable.; in In step 21: Navigator to table..

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal

agent_id	context		info	summary
	based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
8%	27/350 [04:55<58:53,	10.94s/it]		

==== total step: 27 current s

```
tep: 27 =======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 19
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 17
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 18
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.make_wood_pickaxe: 'make_wood_pickaxe'>, <Nav
igationDestinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.NO</pre>
T APPLICABLE: 'not applicable'>, -1) with action make wood pickaxe; current
status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Wood pickaxe is already made.
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_u p; current status: ActionStatus.ALMOST_DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
1 2	1 2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [26]. My inventory contained [3 wood]. In the past, I successfully gathered wood and set the plan to craft a wood pickaxe; I failed to navigate precisely to trees at times. On collaboration, Agent 0 required stone which I was unable to provide yet. I [crafted a wood pickaxe] because [it was necessary to advance my tools and aid other agents]. This action [succeeded]. I planned to work towards [helping other agents] because [it's part of the collaboration strategy]. ### Current Experience - This is episoide 1. It is currently 27 steps into the episoide. You are at loaction [31 23] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 8, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a not_applicable". Attempted "mavigate to a table". Attempted "make_wood_pickaxe". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help	In progress long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [27]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully crafted a wood pickaxe; I failed to navigate precisely to trees. On collaboration, Agent 0 needed stone which I couldn't provide yet. I navigated towards stone because I needed to help Agent 0 craft a stone pickaxe. This action was in progress, as I aimed to find and gather stone. I planned to work towards helping Agent 0 because collaboration is the priority.

the agent immediately if you do have the material in your inventory.

- For immediate goal: Wood pickaxe is already made.
- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 26: make_wood_pickaxe. .

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

required items.
Do not share resources/tools that are not needed by the agents.
Try to help the agents. If they don't need help, you should focus on advancing your tools.
If you are not sure what to do, share stone to agent 0.
Recosider how you can help the previous agent.
!!!Determine your current goal based on agents who need help.
If they don't need help, you should focus on advancing your

3 in progress

tools.

in progress

in progress

agent_id context info summary 4 4 long_term_goal: This is agent 4. In ### Last Experience Summary help_agent Episode: 1; Timestep: 27. This is agent 4. In Episode: 1; My inventory contained Timestep: 19. My inventory wood: 3. In the past, I current_goal: contained wood: 3. In the past, I collect_wood successfully navigated successfully navigated towards towards a tree but failed targets but failed to gather to collect more wood op: do enough materials due to improper due to possibly not facing direction. On collaboration, performing the 'do' navigate to: tree I prioritized helping Agent 0 by action correctly. On planning to collect and share collaboration, I planned share: stone necessary resources. I navigated to help Agent 0 by to a tree to collect wood because target_agent_id: collecting and sharing it was essential for crafting a resources but currently wood pickaxe to support Agent 0. lack the stone needed. This action was in progress since I continued to collect I had not vet collected the wood. I wood because it is planned to work towards helping required for tool Agent 0 by gathering enough advancement and aiding wood to make a wood pickaxe. other agents. This action was in progress as I am ### Current Experience facing a tree. I planned - This is episoide 1. It is currently to work towards helping 27 steps into the episoide. You Agent 0 because are at loaction [36 18]. collaboration is the - Facing Direction: You are facing priority. a tree. - Current Health Stats: health: 9, food: 8, drink: 8, energy: 9. - Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help

the agent immediately if you do have the material in your

inventory.

- For immediate goal: *Ready*'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 16: Navigator to tree.; in In step 19: Navigator to tree..

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 3 is working on Goal 'share' will work if and only if you have the material in your inventory. Double check! If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the

previous agent.

agent_id	contex	t	info	summary
	!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
8% ■	28/350 [05:03<58:07,	10.83s/it]		

```
==== total step: 28 current s
tep: 28 =======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 14
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 21
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 17
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE: 'tree'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 27. My inventory contained wood: 3. In the past, I successfully navigated towards a tree but failed to collect more wood due to possibly not performing the 'do' action correctly. On collaboration, I planned to help Agent 0 by collecting and sharing resources but currently lack the stone needed. I continued to collect wood because it is required for tool advancement and aiding other agents. This action was in progress as I am facing a tree. I planned to work towards helping Agent 0 because collaboration is the priority. ### Current Experience - This is episoide 1. It is currently 28 steps into the episoide. You are at loaction [36 18] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 8, drink: 8, energy: 9 Current Inventory: sapling: 0, wood: 4, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 28. My inventory contained wood: 4. In the past, I successfully navigated towards a tree but failed to collect additional wood due to facing the wrong direction. On collaboration, I planned to help Agent 0 but currently have no stone to share. I navigated towards a tree because collecting wood is crucial for advancing tools to eventually aid other agents. This action was successful previously, and I planned to work towards helping Agent 0 because collaboration is the priority.

work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 27: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

will work if and only if you have the material in your inventory. Double check!
If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.
Else, work on advancing your tools.

Agent 3 is working on Goal 'share'

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should prioritize
helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon as
you gain access to the required

agent_id	context	i ii	nfo	summary
	items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
9% ∎	30/350 [05:12<55:28,	10.40s/it]		

```
==== total step: 29 current s
tep: 29 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 17
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 4
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 16
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent_3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
```

aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent 4/knowledge graph 1.html agent 4

Prerequisites Check:

- For long-term goal: Goal 'help agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron pickaxe;

======== total step: 30 current s

Knowledge graph saved to results/agent_0/knowledge_graph_1.html

length route 12

Knowledge graph saved to results/agent_1/knowledge_graph_1.html

length route 16

Knowledge graph saved to results/agent 2/knowledge graph 1.html length route 19

| 31/350 [05:12<53:33, 10.07s/it]

```
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 14
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 15
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
```

```
- For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe:
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
======= total step: 31 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 15
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 14
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
```

| 32/350 [05:12<51:44, 9.76s/it]

file:///Users/alberty/Downloads/six_agent_mem_comm.html

```
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

Knowledge graph saved to results/agent 5/knowledge graph 1.html

onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS

```
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 32 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 14
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 17
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 12
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 1
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 13
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 28. My inventory contained wood: 4. In the past, I successfully navigated towards a tree but failed to collect additional wood due to facing the wrong direction. On collaboration, I planned to help Agent 0 but currently have no stone to share. I navigated towards a tree because collecting wood is crucial for advancing tools to eventually aid other agents. This action was successful previously, and I planned to work towards helping Agent 0 because collaboration is the priority. ### Current Experience - This is episoide 1. It is currently 32 steps into the episoide. You are at loaction [36 15] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 8, drink: 8, energy: 8 Current Inventory: sapling: 0, wood: 4, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree".	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 32. My inventory contained wood: 4. In the past, I successfully navigated towards a tree and positioned myself correctly for collection. I failed initially due to facing the wrong direction. On collaboration, I aimed to help Agent 0 with stone, but I had none in inventory. Agent 3 is assisting me in obtaining stone. I collected wood because it is essential for crafting and potentially assisting other agents. This action was in progress, as I faced the correct direction now. I planned to work towards helping Agent 0 with their stone pickaxe effort, given my role in collaboration.

Crafting Station Availability:
- Table: placed alerady; Do

agent_id context info summary

NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 28: Navigator to tree.

.

Collaboration: Need Your

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone:

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 3 is working on Goal 'share' will work if and only if you have the material in your inventory. Double check! If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by

agent_id	context	info		summary
	sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
9%	33/350 [05:24<51:52,	9.82s/it]		

```
==== total step: 33 current s
tep: 33 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 8
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 13
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 12
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action do; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is read
 y, should navigate to tree;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id	context	info	summary
0 0	in progress	in progress	in progress
1 1	in progress	in progress	in progress
2 2	in progress	in progress	in progress
3 3	in progress	in progress	in progress
4 4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 32. My inventory contained wood: 4. In the past, I successfully navigated towards a tree and positioned myself correctly for collection. I failed initially due to facing the wrong direction. On collaboration, I aimed to help Agent 0 with stone, but I had none in inventory. Agent 3 is assisting me in obtaining stone. I collected wood because it is essential for crafting and potentially assisting other agents. This action was in progress, as I faced the correct direction now. I planned to work towards helping Agent 0 with their stone pickaxe effort, given my role in collaboration. ### Current Experience - This is episoide 1. It is currently 33 steps into the episoide. You are at loaction [36 15] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 8, drink: 8, energy: 8 Current Inventory: sapling: 0, wood: 5, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tre	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent 4. In Episode: 1; Timestep: 33. My inventory contained wood: 5. In the past, I successfully navigated towards a tree and collected wood; I failed initially to face the correct target. On collaboration, Agent 3 is helping me obtain stone for agent 0. I collected wood because it was a necessary resource for crafting. This action succeeded after aligning correctly with the tree. I planned to work towards helping Agent 0 with their stone pickaxe effort to fulfill the collaboration policy.

work on place_table again.

agent_id context info summary

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 32: do. .

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone:

He is focusing on 'collect_stone', everything is ready, should navigate to stone;

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools. Agent 3 is working on Goal 'share' will work if and only if you have the material in your inventory. Double check!

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Collaboration Policy

You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0.

You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items.

Do not share resources/tools that are not needed by the agents.

agent_id	contex	ct	info	summary
	Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
10%	35/350 [05:37<50:39,	9.65s/it]		

```
==== total step: 34 current s
tep: 34 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 7
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 12
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 12
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 11
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent_3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
```

aterial in your inventory. Double check!

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_right; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

### Prerequisites Check:
```

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;

Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 6

Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 11

Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 14

10%|■ | 36/350 [05:37<49:07, 9.39s/it]

```
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 9
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 10
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
```

```
- For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': Missing 1 wood pi
ckaxe;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
======== total step: 36 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 5
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 10
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 13
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 8
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 10
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
lenath route 9
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
```

11%|**■** | 37/350 [05:38<47:40, 9.14s/it]

```
six agent mem comm
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': Missing 1 wood pi
ckaxe;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
```

e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS

Knowledge graph saved to results/agent 5/knowledge graph 1.html

```
agent 5
### Prerequisites Check:
 - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
 - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 37 current s
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 4
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 9
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 12
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 7
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 9
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 8
11%|■ | 38/350 [05:38<46:17, 8.90s/it]
```

```
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
```

- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicable of the control of

e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS

```
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe:
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
======= total step: 38 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 8
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 6
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 8
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 7
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
11%|■
              | 40/350 [05:38<43:44, 8.47s/it]
```

```
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': Missing 1 wood pi
ckaxe;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
           Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 5
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 6
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

```
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
  - For immediate goal: *Ready* 'collect stone'
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up: current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
ckaxe;
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move left; current status: ActionStatus.IN PROGRESS
```

```
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
======= total step: 40 current s
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 1
Knowledge graph saved to results/agent 1/knowledge graph 1.html
lenath route 6
Knowledge graph saved to results/agent 2/knowledge graph 1.html
lenath route 9
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 4
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 6
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 5
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Ready* 'collect stone'
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_right; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info 0 0 long_term_goal: ### Last Experience make_stone_pickaxe Summary This is agent 0. In Episode: 1: current goal: Timestep: 20. My inventory collect_stone contained 1 wood and 1 wood_pickaxe. In the past, I op: do successfully placed a table; I failed to collect enough wood navigate to: stone for crafting beyond that. On collaboration, Agent 1 share: not_applicable supported me with resource sharing. I crafted a wood pickaxe because it is needed target_agent_id: -1 to progress with better tools. This action was in progress because more materials are required. I planned to work towards making a stone pickaxe because it is the step in tool advancement. ### Current Experience - This is episoide 1. It is currently 40 steps into the episoide. You are at loaction [14 21]. - Facing Direction: You are facing a stone. - Current Health Stats: health: 9, food: 8, drink: 8, energy: 8. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "place_table". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". ### Crafting Station Availability:

Table: placed alerady; Do
 NOT work on place_table

This is agent 0. In Episode: 1; Timestep: 40. My inventory contained 1 wood and 1 wood_pickaxe. In the past, I successfully placed a table; I failed to collect stone previously due to incomplete 'do' actions. On collaboration, Agent 1 helped by sharing resources. I attempted to navigate and collect stone because it is essential for crafting a stone pickaxe. This action was in progress due to facing the correct stone but not completing the collect action. I planned to work towards making a stone pickaxe because it is the next step in tool advancement towards collecting a diamond. I decided to continue performing the 'do' action to successfully collect stone and craft further tools.

summary

agent_id	context	i	info	summary
	again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_stone_pickaxe':			
	Missing 1 stone; - For immediate goal: *Ready* 'collect_stone' - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 20: Navigator to stone			
	### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5			
1 1	in progress	in progress	in progress	
2 2	in progress	in progress	in progress	
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	

| 41/350 [05:53<44:26, 8.63s/it]

12%|

```
==== total step: 41 current s
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 4
Player 0 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati

onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_right; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_stone_pickaxe Episode: 1; This is agent 0. In Episode: 1; Timestep: 41. My Timestep: 40. My inventory current_goal: inventory contained 1 wood, 1 contained 1 wood and 1 collect_stone wood_pickaxe. In the past, I stone, and 1 successfully placed a table; I failed op: Navigator wood_pickaxe. In to collect stone previously due to the past, I successfully placed incomplete 'do' actions. On navigate to: table collaboration, Agent 1 helped by a table: I failed to sharing resources. I attempted to share: collect additional navigate and collect stone not_applicable stones previously because it is essential for crafting due to insufficient 'do' actions. On a stone pickaxe. This action was in target_agent_id: -1 progress due to facing the correct collaboration. stone but not completing the Agent 1 assisted by collect action. I planned to work sharing resources. towards making a stone pickaxe I navigated to a because it is the step in tool table because I advancement towards collecting a needed to craft a diamond. I decided to continue stone pickaxe. This performing the 'do' action to action was in successfully collect stone and progress as I craft further tools. prepared to craft. I planned to work ### Current Experience towards making a - This is episoide 1. It is currently stone pickaxe 41 steps into the episoide. You are because it is at loaction [14 21]. necessary for - Facing Direction: You are facing further advancements - Current Health Stats: health: 9, towards collecting food: 8, drink: 7, energy: 8. a diamond. - Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "place_table". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability:

placed.

work on place_table again.
- Furnace: still needs to be

- Table: placed alerady; Do NOT

	agent_id	context	ir	nfo	summary
		- For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table; - For immediate goal: should work on long-term goal now To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 40: do ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5			
1	1	in progress	in progress	in progre	ss
2	2	in progress	in progress	in progre	ss
3	3	in progress	in progress	in progre	SS
4	4	in progress	in progress	in progre	SS
5	5	in progress	in progress	in progre	ss
1	.2%	43/350 [06:02<43:08,	8.43s/it]		

```
==== total step: 42 current s
tep: 42 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 18
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 7
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 5
Knowledge graph saved to results/agent 5/knowledge graph 1.html
lenath route 3
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
```

aterial in your inventory. Double check!

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
ckaxe:
Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======== total step: 43 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 17
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 6
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 8
Knowledge graph saved to results/agent 5/knowledge graph 1.html
length route 2
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
```

y, should navigate to tree;

Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_left; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is rea dy, should navigate to stone;

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_right; current status: ActionStatus.ALMOST_DONE Knowledge graph saved to results/agent_3/knowledge_graph_1.html agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action move_up; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













1 1 in progress in progress in progress in progress 1 1 in progress in progress in progress 2 2 in progress in progress in progress 3 3 #### Last Experience Summary This is a gent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide experience for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone because I had the necessary resource. I planned to navigate to stone because I had the necessary resource. I planned to navigate to stone because I scritical for our collaborative progress. #### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, attempted "navigate to a tree". Attempted "havigate to a tree". Attempted "navigate to a tr	1 1 in progress in progress in progress In progress in progress In progress in progress In progres In pro		agent_id	context	info	summary
### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 2:3] Facing Direction: You are facing a stone Current Inventory: sapling; 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, reflections stone This is agent 3. In Episode: 1; Timestep: 43. My inventory contained 2 wood. In the past, 1 successfully navigate to a traeyel-date to altered. Shore navigate to: stone previously due to lack of a pickaxe. On needed stone for crafting, which guided my efforts. I navigated to stone because Agent 0 needs it for tool rafting. This is action was in progress Agent 0 in the past, 1 successfully navigate to a traeyel-date to altered. Shore 1 failed to collect stone previously due to lack of a pickaxe. On needed stone for crafting, which guided my efforts. I navigated to stone because Agent 0 needs it for tool rafting. This is actions was in progress because I faced the stone without the required pickaxe. I planned to work towards helping Agent 0 by collecting stone because it is essential for their tool-making. 1, Timestep: 43. My inventory contained 1, Timestep: 43. My inventory contained 1, Timestep: 43. My inventory contained 1, Timestep: 43. My inventory	### Last Experience Summary This is agent 3. In Episode: 1, Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, vood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, vood: 2, stone: 0, coal: 0, iron: 0, stone_sword: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0, stone_word: 0, iron_sword: 0, stone_sword: 0, iron_sword:	0	0	in progress	in progress	in progress
### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "avigate to a tree". Attempted "foo". Attempted "share wood with agent 0'. Attempted "avigate to a tree". Attempted "foo". Attempted "share wood with agent 0'. Attempted "foo". Attempted "share wood with agent 0''. Attempted "foo".	### Last Experience Summary This is agent 3. In Episode: 1, Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; failed to provide stone for Agent 0're carditing needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making, I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, vood (1, the past, 1 successfully navigated to a stone; I failed to collect stone previously due to lack of a pickaxe. On navigate to: stone previously due to lack of a pickaxe. On needed stone for crafting, which guided my efforts. 1 navigated to stone because Agent O needed stone for crafting, which guided my efforts. 1 navigated to stone because Agent O needed it for tool rafting. This action was in progress because I faced the stone without the required pickaxe. I planned to work towards helping Agent O in making a stone_pickaxe: 0, navigate to: stone previously due to lack of a pickaxe. On needed stone for crafting, which guided my efforts. 1 navigated to stone because Agent O heeded stone for crafting, which guided my efforts. 1 navigated to stone because Agent O headed stone for crafting, which guided to alset to refer the required pickaye. 1 navigate to: stone previously due to lack of a pickaxe. On needed stone for crafting, wood. I store 1 (This is agent 3. In Episode: 1; Timestep: 13. My inventory contains tone; I for for loor 1 (all the pickaye. 1 navigate to: 1 (all the pickaye. 2) successfully navigated to	1	1	in progress	in progress	in progress
### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "share wood with agent 0". Attempted "inavigate to a tree". Attempted "inavigate to a tree". Attempted "foo".	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide, You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, Attempted "havigate to a tree". Attempted "do". Attempted "havigate to a tree". Attempted "do". Attempted "havigate to a tree". Attempted "havigate to a tree". Attempted "inavigate to a tree". Attempted "navigate to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to: stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to inavigate to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to inavigate to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to inavigate to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to inavigate to stone previously due to lack of a pickaxe. On collaboration, 3 epto 1 navigate to stone because target_agent_id: correcting from the past, 1 stone restone stone previously due to lack of a pickaxe. 1 navigate to stone because target_agent_id:	2	2	in progress	in progress	in progress
### Crafting Station				### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully gathered wood and shared it with Agent 0; I failed to provide stone for Agent 0's crafting needs. On collaboration, I recognized the needs of Agent 0 and planned to provide necessary materials for tool making. I shared wood to help Agent 0. This action succeeded because I had the necessary resource. I planned to navigate to stone to assist Agent 0 in making a stone_pickaxe because it is critical for our collaborative progress. ### Current Experience - This is episoide 1. It is currently 43 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "navigate to a stone".	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: stone target_agent_id:	This is agent 3. In Episode: 1; Timestep: 43. My inventory contained 2 wood. In the past, I successfully navigated to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, Agent 0 needed stone for crafting, which guided my efforts. I navigated to stone because Agent 0 needs it for tool crafting. This action was in progress because I faced the stone without the required pickaxe. I planned to work towards helping Agent 0 by collecting stone because it is essential for

agent_id context info summary

Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 20: Navigator to tree.; in In step 22: Navigator to stone..

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 2 is completing the task.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.
Do not share resources/tools
that are not needed by the

agent_id	context	info		summary
	agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
13%	44/350 [06:09<42:50	, 8.40s/it]		

```
==== total step: 44 current s
tep: 44 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 5
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 7
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
length route 1
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': Missing 1 wood pi
ckaxe:
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_right; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.DIAMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.ALMOST_DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	2 3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 43. My inventory contained 2 wood. In the past, I successfully navigated to a stone; I failed to collect stone previously due to lack of a pickaxe. On collaboration, Agent 0 needed stone for crafting, which guided my efforts. I navigated to stone because Agent 0 needs it for tool crafting. This action was in progress because I faced the stone without the required pickaxe. I planned to work towards helping Agent 0 by collecting stone because it is essential for their tool-making process. ### Current Experience - This is episoide 1. It is currently 44 steps into the episoide. You are at loaction [54 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check:	in progress long_term_goal: help_agent current_goal: make_wood_pickaxe op: Navigator navigate to: table share: stone target_agent_id: 0	in progress This is agent 3. In Episode: 1; Timestep: 44. My inventory contained nothing useful for current tasks. In the past, I successfully shared wood with Agent 0; I failed to collect stone due to the lack of a wood pickaxe. On collaboration, Agent 0 needed stone for crafting, but I could not provide it yet. I navigated to a stone, intending to collect it, but failed due to lacking a pickaxe. This action failed because of this missing tool. I planned to work towards crafting a wood pickaxe to enable collecting stone for Agent 0, recognizing my need to assist his task completion. I planned to navigate to a table next to enable crafting the necessary pickaxe.
		### Prerequisites Check: - For long-term goal: Goal		

agent_id context info summary 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 43: do. . ### Collaboration: Need Your Help!!! Agent 0 is working on 'make_stone_pickaxe', Missing 1 stone; He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should

4 4 in progress

focus on advancing your tools.

in progress

in progress

	agent_id	context	info	summary
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 0. My inventory contained nothing. In the past, I successfully started the episode with no actions. On collaboration, I was set to receive an iron pickaxe from Agent 4 to collect a diamond. I navigated towards a diamond because I am tasked with collecting it. This action was in progress since I needed to locate a diamond first. I planned to work towards collecting a diamond because this is the ultimate goal of my current task. ### Current Experience - This is episoide 1. It is currently 44 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 0: Navigator to diamond ### Collaboration: Need Your	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: 4	This is agent 5. In Episode: 1; Timestep: 44. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I am waiting for Agent 4 to share an iron pickaxe with me. I navigated to the diamond site because collecting it is my ultimate goal. This action was in progress as it required the iron pickaxe, which was not yet available in my inventory. I planned to work towards collecting a diamond because it is crucial for winning the game.

agent_id	context	t	info	summary
	Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
13% ■	45/350 06:21<43:06.	8.48s/itl		

```
==== total step: 45 current s
tep: 45 ======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
lenath route 15
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 26
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 6
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e right; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati

onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_up; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent 4/knowledge graph 1 html

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) wit h action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 22. My inventory contained 2 wood. In the past, I successfully navigated and collected wood after several attempts; I failed initially to face the correct direction due to repeated movement errors. On collaboration, I aimed to collect stone for Agent 0 but continued working on basics first. I navigated towards stone because sharing materials is critical to support Agent 0. This action was in progress as I prepared to find stone. I planned to work towards helping Agent 0 with stone to aid our shared diamond mining goal. ### Current Experience - This is episoide 1. It is currently 45 steps into the episoide. You are at loaction [44 12] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: not_applicable target_agent_id: -1	This is agent 1. In Episode: 1; Timestep: 45. My inventory contained 2 wood. In the past, I successfully navigated towards resources; I failed to complete collection actions due to movement errors. On collaboration, I focused on aiding Agent 0 by collecting stone but have not succeeded yet. I navigated to face a stone because it is essential for helping Agent 0 craft their tools. This action succeeded as I prepared for the collection. I planned to work towards helping Agent 0 because sharing materials is crucial for our teamwork.

	agent_id	context	info	summary
		### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; - To satisify the prerequiste, you made the following efforts recently towards collect_wood: - In step 22: Navigator to stone ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone.		
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 44. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I am waiting for Agent 4 to share an iron pickaxe with me. I navigated to the diamond site because collecting it is my ultimate goal. This action was in progress as it required the iron pickaxe, which was not yet available in my inventory. I	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 45. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I was waiting for Agent 4 to share an iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required

agent_id context info summary planned to work towards the iron pickaxe to collect collecting a diamond because it the diamond. I planned to is crucial for winning the game. work towards collecting a diamond because it is crucial for winning the ### Current Experience - This is episoide 1. It is game once I received the currently 45 steps into the necessary tool. episoide. You are at loaction [8 - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 8, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should

agent_id	context	iı	nfo	summary
	navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
13%	46/350 [06:35<43:33,	8.60s/it]		

```
==== total step: 46 current s
tep: 46 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 14
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 25
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 5
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:</pre>
'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': Missing 1 wood pi
ckaxe:
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent 5/knowledge graph 1 html

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 45. My inventory contained 2 wood. In the past, I successfully navigated towards resources; I failed to complete collection actions due to movement errors. On collaboration, I focused on aiding Agent 0 by collecting stone but have not succeeded yet. I navigated to face a stone because it is essential for helping Agent 0 craft their tools. This action succeeded as I prepared for the collection. I planned to work towards helping Agent 0 because sharing materials is crucial for our teamwork. ### Current Experience - This is episoide 1. It is currently 46 steps into the episoide. You are at loaction [44 12] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: table share: not_applicable target_agent_id: -1	This is agent 1. In Episode: 1; Timestep: 46. My inventory contained 2 wood. In the past, I successfully navigated through the environment but failed to collect stone due to not having a wood_pickaxe. On collaboration, I intended to help Agent 0 by collecting stone. I navigated towards a table to craft a wood_pickaxe because it is essential for collecting stone and supporting Agent 0. This action was in progress as I needed to craft the pickaxe. I planned to work towards aiding Agent 0 because sharing materials is crucial for our teamwork.

ag	gent_id	context	info	summary
		### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 45: do ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone.		
2 2		in progress	in progress	in progress
3 3		in progress	in progress	in progress
4 4		in progress	in progress	in progress
5 5		### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 45. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I was waiting for Agent 4 to share an iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. I planned to work towards collecting a diamond because it is crucial	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 46. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. I planned to work towards collecting a diamond

info agent_id context summary for winning the game once I because it is crucial for received the necessary tool. winning the game once I received the necessary ### Current Experience tool. - This is episoide 1. It is currently 46 steps into the episoide. You are at loaction [8 191. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 8, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.

agent_id	context	in	ifo	summary
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
13% ■	47/350 [06:53<44:23,	8.79s/it]		

```
==== total step: 47 current s
tep: 47 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 25
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 24
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 4
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati

onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov e_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html

agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













1 1 in progress in progress in progress in progress 1 1 in progress in progress in progress 2 2 in progress in progress in progress 3 3 in progress in progress in progress 4 4 in progress in progress in progress 5 5 ### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 46. My inventory contained nothing. In the past, 1 successfully navigated to a diamond location; 1 failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. I planned to work towards collecting a diamond because it is crucial for winning the game once I received the necessary tool. ### Current Experience - This is episoide 1. It is currently 47 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_bickaxe: 0, wood_sword: 0, stone_pickaxe: 0, iron_pickaxe:		agent_id	context	info	summary
in progress in propress in progress in propress in propress in propress in progress in pro	0	0	in progress	in progress	in progress
in progress in pro	1	1	in progress	in progress	in progress
### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 46. My inventory contained nothing. In the past, 1 successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe for me to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. planned to work towards collecting a diamond because it is crucial for winning the game once I received the necessary tool. #### Current Experience - This is episoide: 1; Timestep: 47. My inventory contained collect_diamond on thing. In the past, I successfully navigated to a diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I was positioned near the diamond because I target_agent_id: -1 cident diamond1 collect_diamond op: noop falled to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I was positioned near the diamond because I target_agent_id: -1 cident diamond -1 collect_diamond collect_diamond op: noop falled to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I was positioned near the diamond because I target_agent_id: -1 cident diamond collect_diamond collect_diamond collect_diamond op: noop falled to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I was positioned near the diamond because I target_agent_id: -1 cident diamond -1 collect_diamond collect_diamond collect_diamond collect_diamond collect_diamond op: noop falled to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe to collect the diamond because i target_agent_id: -1 collect_diamond collect_diamond collect_diamond collect_diamond collect_diamond collect_diamond	2	2	in progress	in progress	in progress
### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 46. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. planned to work towards collecting a diamond because it is crucial for winning the game once I received the necessary tool. ### Current Experience - This is episoide 1, It is currently 47 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_word: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "n	3	3	in progress	in progress	in progress
### Last Experience Summary This is agent 5. In Episode 1; Timestep: 46. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. planned to work towards collecting a diamond because it is crucial for winning the game once I received the necessary tool. ### Current Experience - This is episoide 1. It is currently 47 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0, ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". ### Crafting Station Availability:	4	4	in progress	in progress	in progress
rabio placea alorady, se	5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 46. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I waited at the diamond because Agent 4 needed to share the iron pickaxe for me to proceed. This action was in progress as it required the iron pickaxe to collect the diamond. I planned to work towards collecting a diamond because it is crucial for winning the game once I received the necessary tool. ### Current Experience - This is episoide 1. It is currently 47 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop".	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id:	This is agent 5. In Episode: 1; Timestep: 47. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On collaboration, I waited for Agent 4 to share the iron pickaxe with me. I was positioned near the diamond because I needed to await the iron pickaxe to collect it. This action was in progress as it required the iron pickaxe to collect the diamond. I planned to work towards collecting a diamond because it is crucial for winning the game once I received the

agent_id info context summary NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

14%|**■** | 48/350 [07:03<44:24, 8.82s/it]

```
==== total step: 48 current s
tep: 48 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 12
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 24
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 21
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 3
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov

e_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [27]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully crafted a wood pickaxe; I failed to navigate precisely to trees. On collaboration, Agent 0 needed stone which I couldn't provide yet. I navigated towards stone because I needed to help Agent 0 craft a stone pickaxe. This action was in progress, as I aimed to find and gather stone. I planned to work towards helping Agent 0 because collaboration is the priority. ### Current Experience - This is episoide 1. It is currently 48 steps into the episoide. You are at loaction [14 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a ree". Attempted "navigate to a stone". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [48]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully gathered resources from stone; I failed to navigate precisely. On collaboration, I tried to help Agent 0 by attempting to collect stone. I collected stone using the wood pickaxe because I needed to help Agent 0 craft tools. This action was in progress as more stone was required. I planned to work towards helping Agent 0 because collaboration is the priority.

agent_id context info summary

'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 27: Navigator to stone.

.

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your

tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 47. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to:	This is agent 5. In Episode: 1; Timestep: 48. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the diamond due to lacking an iron pickaxe. On

agent_id context info summary collaboration, I waited for Agent diamond collaboration, I waiting 4 to share the iron pickaxe with for Agent 4 to share the me. I was positioned near the iron pickaxe with me. I share: diamond because I needed to not_applicable continued to face the await the iron pickaxe to collect diamond because I it. This action was in progress as target_agent_id: needed the iron pickaxe it required the iron pickaxe to to collect it. This action collect the diamond. I planned to was in progress because work towards collecting a it required the iron diamond because it is crucial for pickaxe to collect the winning the game once I diamond. I planned to received the necessary tool. work towards collecting a diamond because it is ### Current Experience crucial for winning the - This is episoide 1. It is currently game once I received the 48 steps into the episoide. You necessary tool. are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 8, drink: 7, energy: 8. Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.; in In step 47: noop. . ### Collaboration: Need Your Help!!!

agent_id	context	ir	nfo	summary
	While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
14% ■	49/350 [07:12<44:17,	8.83s/it]		

```
==== total step: 49 current s
tep: 49 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 23
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 2
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1] ; Timestep: [48]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully gathered resources from stone; I failed to navigate precisely. On collaboration, I tried to help Agent 0 by attempting to collect stone. I collected stone using the wood pickaxe because I needed to help Agent 0 craft tools. This action was in progress as more stone was required. I planned to work towards helping Agent 0 because collaboration is the priority. ### Current Experience - This is episoide 1. It is currently 49 steps into the episoide. You are at loaction [14 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [49]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. In the past, I successfully collected stone; I failed to navigate precisely. On collaboration, I aimed to assist Agent 0 by attempting to collect and share stone. I shared stone because it can aid Agent 0 in tool advancement, which is crucial for our collaboration. This action was in progress since timely sharing boosts team efficiency. I planned to work towards helping Agent 0 because assisting agents with resources aligns with the collaboration policy.

agent_id context info summary

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 48: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 48. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to	long_term_goal: collect_diamond current_goal: collect_diamond op: noop	This is agent 5. In Episode: 1; Timestep: 49. My inventory contained nothing. In the past, I successfully navigated to a diamond location; I failed to collect the

agent_id context info summary collect the diamond due to diamond due to lacking an lacking an iron pickaxe. On navigate to: iron pickaxe. On collaboration, I waiting for Agent not_applicable collaboration, I was 4 to share the iron pickaxe with waiting for Agent 4 to me. I continued to face the share the iron pickaxe share: diamond because I needed the with me. I continued to not_applicable iron pickaxe to collect it. This face the diamond because action was in progress because it was crucial to collect it target_agent_id: it required the iron pickaxe to quickly for the team's collect the diamond. I planned success. This action was to work towards collecting a in progress as I awaited diamond because it is crucial for the required tool. I winning the game once I planned to work towards received the necessary tool. collecting a diamond because it is important to ### Current Experience win the game once I - This is episoide 1. It is received the necessary currently 49 steps into the tool. My goal remains to episoide. You are at loaction [8 collect the diamond as soon as I'm equipped to - Facing Direction: You are do so. facing a diamond. - Current Health Stats: health: 9, food: 8, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards

collect_diamond:

- In step 44: noop.; in In step 45: noop.; in In step 46: noop.;

agent_id	context	info	summary
	in In step 47: noop. ; in In step 48: noop		
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.		
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.		
14%	50/350 [07:37<45:45,	9.15s/it]	

```
==== total step: 50 current s
tep: 50 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 22
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 19
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 1
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT_APPICABLE: 'not_applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
```

e up; current status: ActionStatus.ALMOST DONE

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': Missing 1 wood_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1] ; Timestep: [49]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. In the past, I successfully collected stone; I failed to navigate precisely. On collaboration, I aimed to assist Agent 0 by attempting to collect and share stone. I shared stone because it can aid Agent 0 in tool advancement, which is crucial for our collaboration. This action was in progress since timely sharing boosts team efficiency. I planned to work towards helping Agent 0 because assisting agents with resources aligns with the collaboration policy. ### Current Experience - This is episoide 1. It is currently 50 steps into the episoide. You are at loaction [14 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 8, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0".	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [50]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully attempted to share with Agent 0; I failed to share stone due to lack of inventory. On collaboration, I aimed to help Agent 0 by sharing resources. I navigated to stone because it's needed to assist Agent 0. This action was in progress due to the absence of stone in my inventory. I planned to work towards helping Agent 0 because collaborative success is our priority.

Crafting Station

six_agent_mem_comm agent_id context info summary Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 49: share stone to target agent. . ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the

required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3 in progress in progress in progress

agent_id context info summary **4** 4 long_term_goal: This is agent 4. In ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 4. In Episode: 1; 50. My inventory Timestep: 33. My inventory contained wood: 5. In current_goal: contained wood: 5. In the past, make_wood_pickaxe the past, I successfully I successfully navigated navigated to areas of towards a tree and collected interest like stone; I op: Navigator wood; I failed initially to face failed to collect stone the correct target. On due to lacking a wood navigate to: tree collaboration, Agent 3 is pickaxe. On collaboration, Agent 3 helping me obtain stone for share: not_applicable agent 0. is helping me by I collected wood because it gathering stone for was a necessary resource for target_agent_id: -1 Agent 0. crafting. This action succeeded I navigated towards the after aligning correctly with the table to craft a wood tree. I planned to work towards pickaxe because it is helping Agent 0 with their needed to progress stone pickaxe effort to fulfill with stone collection. the collaboration policy. This action was in progress, as I needed ### Current Experience the pickaxe to - This is episoide 1. It is continue. I planned to currently 50 steps into the work towards making a episoide. You are at loaction wood pickaxe because it was crucial for [42 6]. - Facing Direction: You are assisting Agent 0 with facing a stone. their stone pickaxe - Current Health Stats: health: needs. 9, food: 8, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 5, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be

placed.

agent_id context info summary

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone':
 Missing 1 wood_pickaxe;
 To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 33: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 3 is completing the task.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

5 5

Last Experience Summary
This is agent 5. In Episode: 1;
Timestep: 49. My inventory
contained nothing. In the past, I
successfully navigated to a
diamond location; I failed to
collect the diamond due to
lacking an iron pickaxe. On
collaboration, I was waiting for
Agent 4 to share the iron

long_term_goal: collect_diamond

current_goal: collect_diamond

op: noop

navigate to: diamond This is agent 5. In Episode: 1; Timestep: 50. My inventory contained nothing. In the past, I successfully faced a diamond location; I failed to collect the diamond due to not receiving an iron pickaxe yet. On collaboration, I was in

agent_id context info summary pickaxe with me. I continued to share: progress waiting for face the diamond because it not_applicable Agent 4 to share the was crucial to collect it quickly required tool with me. I for the team's success. This target_agent_id: -1 continued by trying to collect a diamond action was in progress as I awaited the required tool. I because it is essential planned to work towards for winning the game. collecting a diamond because This action was in it is important to win the game progress because I once I received the necessary depended on tool. My goal remains to collect collaboration to the diamond as soon as I'm receive the iron equipped to do so. pickaxe. I planned to work towards ### Current Experience collecting the diamond - This is episoide 1. It is because it aligns with currently 50 steps into the the team goal. episoide. You are at loaction [8 191. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 8, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a diamond". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards

agent_id	context	in	fo	summary
	collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.; in In step 48: noop.; in In step 49: noop ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with			
	you.			
15%	51/350 [07:47<45:41,	9.17s/it]		

```
==== total step: 51 current s
tep: 51 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 9
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 21
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 18
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 5
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
```

1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 50. My inventory contained nothing. In the past, I successfully faced a diamond location; I failed to collect the diamond due to not receiving an iron pickaxe yet. On collaboration, I was in progress waiting for Agent 4 to share the required tool with me. I continued by trying to collect a diamond because it is essential for winning the game. This action was in progress because I depended on collaboration to receive the iron pickaxe. I planned to work towards collecting the diamond because it aligns with the team goal. ### Current Experience - This is episoide 1. It is currently 51 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop".	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 51. My inventory contained nothing. In the past, I successfully faced a diamond location; I failed to collect the diamond due to not receiving an iron pickaxe yet. On collaboration, I was waiting for Agent 4 to share the required tool with me. I continued by waiting to collect a diamond because it is essential for winning the game. This action was in progress because I depended on collaboration to receive the iron pickaxe. I planned to work towards collecting the diamond because it aligns with the team goal.

info agent_id context summary NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.; in In step 47: noop.; in In step 48: noop.; in In step 49: noop.; in In step 50: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. 15%| | 52/350 [07:55<45:22, 9.14s/it]

```
==== total step: 52 current s
tep: 52 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 8
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 20
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 17
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 4
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1] ; Timestep: [50]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully attempted to share with Agent 0; I failed to share stone due to lack of inventory. On collaboration, I aimed to help Agent 0 by sharing resources. I navigated to stone because it's needed to assist Agent 0. This action was in progress due to the absence of stone in my inventory. I planned to work towards helping Agent 0 because collaborative success is our priority. ### Current Experience - This is episoide 1. It is currently 52 steps into the episoide. You are at loaction [13 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a not_applicable". Attempted "navigate to a table". Attempted "navigate to a table". Attempted "navigate to a table". Attempted "hake_wood_pickaxe". Attempted "navigate to a stone". Attempted stole again. - Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [52]. My inventory contained [2 wood, 1 wood_pickaxe]. I faced stone and planned to collect it to assist Agent 0 who needed stone. This action was in progress due to not having yet collected stone. I focused on helping Agent 0 because it aligns with our collaboration strategy. Once collected, I aimed to advance by sharing stone with Agent 0 immediately. I planned to continue with 'do' to collect the necessary stone.

agent_id context info summary

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 50: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is working on 'collect_wood'

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

	agent_id	context	info	summary
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 51. My inventory contained nothing. In the past, I successfully faced a diamond location; I failed to collect the diamond due to not receiving an iron pickaxe yet. On collaboration, I was waiting for Agent 4 to share the required tool with me. I continued by waiting to collect a diamond because it is essential for winning the game. This action was in progress because I depended on collaboration to receive the iron pickaxe. I planned to work towards collecting the diamond because it aligns with the team goal. ### Current Experience - This is episoide 1. It is currently 52 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 52. My inventory contained nothing. In the past, I successfully waited in position facing a diamond; I failed to proceed with collecting it due to not receiving an iron pickaxe yet. On collaboration, I was waiting for Agent 4 to share the required tool with me. I attempted noop because I depended on collaboration to receive the iron pickaxe while already positioned to collect the diamond. This action was in progress because I required an external help. I planned to work towards collecting the diamond because it aligns with the team goal.

agent_id info context summary complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.; in In step 47: noop.; in In step 48: noop.; in In step 49: noop.; in In step 50: noop.; in In step 51: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. | 53/350 [08:05<45:20, 15%| 9.16s/it]

file:///Users/alberty/Downloads/six_agent_mem_comm.html

```
==== total step: 53 current s
tep: 53 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 7
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 19
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 3
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results (agent 5 /knowledge graph 1 btml

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [52]. My inventory contained [2 wood, 1 wood_pickaxe]. I faced stone and planned to collect it to assist Agent 0 who needed stone. This action was in progress due to not having yet collected stone. I focused on helping Agent 0 because it aligns with our collaboration strategy. Once collected, I aimed to advance by sharing stone with Agent 0 immediately. I planned to continue with 'do' to collect the necessary stone. ### Current Experience - This is episoide 1. It is currently 53 steps into the episoide. You are at loaction [13 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a table". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [53]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. I successfully collected some wood and attempted to collect stone, but mostly faced path; stone remained in progress. I shared stone to Agent 0 as it aligns with our collaboration goal and the immediate needs of the team. This action was in progress because it would support Agent 0's progress. I planned to work towards advancing my tools if no further assistance was needed by Agent 0. Next, I would reassess the success of my assistance and continue enhancing tool capabilities.

agent_id context info summary

the agent immediately if you do have the material in your inventory.

- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 52: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your

tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 52. My inventory contained nothing. In the past, I successfully waited in position facing a diamond; I failed to proceed with collecting it due to not receiving an iron pickaxe yet.	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to:	This is agent 5. In Episode: 1; Timestep: 53. My inventory contained nothing. In the past, I successfully faced the diamond; I failed to continue due to the absence of an iron pickaxe. On collaboration,

On collaboration, I was waiting for Agent 4 to share the required tool with me. I attempted noop because I depended on collaboration to receive the iron pickaxe while already positioned to collect the diamond. This action was in progress because I required an external help. I planned to work towards collecting the diamond because it aligns with the team goal. ### Current Experience - This is episoide 1. It is currently 53 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_pickaxe: 0, oron_pickaxe: 0, wood_sword: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_pickaxe: 0, iron_p
Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond:

agent_id	context	info	summary
	51: noop.; in In step 52: noop		
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.		
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.		
15%	54/350 [08:24<46:07,	9.35s/it]	

```
==== total step: 54 current s
tep: 54 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 6
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent 4/knowledge graph 1.html
lenath route 2
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT_APPICABLE: 'not_applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) wit h action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [53]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. I successfully collected some wood and attempted to collect stone, but mostly faced path; stone remained in progress. I shared stone to Agent 0 as it aligns with our collaboration goal and the immediate needs of the team. This action was in progress because it would support Agent 0's progress. I planned to work towards advancing my tools if no further assistance was needed by Agent 0., I would reassess the success of my assistance and continue enhancing tool capabilities. ### Current Experience - This is episoide 1. It is currently 54 steps into the episoide. You are at loaction [13 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". *### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: not_applicable target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [54]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I attempted to collect stone and share it with Agent 0 but failed due to the lack of stone. Collaboration focused on helping Agent 0 but was unsuccessful because of missing inventory. I navigated to stone to collect it so I can help Agent 0, as per the collaboration policy. This action succeeded, prioritizing extracting stone to support Agent 0's progress. I planned to work towards collecting stone because it's needed to help my assigned agent.

agent_id context info summary

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal
 'share' will work if and only if you have the material in your inventory. Double check!
 To satisify the prerequiste, you
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 53: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal

based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3	in progress	in progress	in progress
4 4	in progress	in progress	in progress
5 5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 53. My inventory contained nothing. In the past, I successfully faced the diamond;	long_term_goal: collect_diamond current_goal: collect_diamond	This is agent 5. In Episode: 1; Timestep: 54. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to

agent_id context info summary I failed to continue due to the op: noop collect it due to lacking absence of an iron pickaxe. On an iron pickaxe. On collaboration, I waited for Agent collaboration, I relied on navigate to: 4 to share the iron pickaxe. I diamond Agent 4 to share the iron continued to wait because my pickaxe. I faced the action relies on collaboration. share: diamond because This action was in progress collecting it was critical not_applicable because I was in the right to our team success. position but needed an external target_agent_id: This action was in resource. I planned to work progress, as it required -1 towards collecting the diamond collaboration for the iron because it's essential to our pickaxe. I planned to work towards collecting team victory. the diamond because it ### Current Experience was the key objective for - This is episoide 1. It is currently winning. 54 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop.; in In step 47: noop.; in In step 48: noop.; in In step 49: noop.;

agent_id	context	i	nfo	summary
	in In step 50: noop.; in In step 51: noop.; in In step 52: noop.; in In step 53: noop			
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
16% ■	55/350 [08:40<46:29,	9.46s/it]		

```
==== total step: 55 current s
tep: 55 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 17
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 14
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 1
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
0) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
```

1) with action move_up; current status: ActionStatus.ALMOST_DONE Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 50. My inventory contained wood: 5. In the past, I successfully navigated to areas of interest like stone; I failed to collect stone due to lacking a wood pickaxe. On collaboration, Agent 3 is helping me by gathering stone for Agent 0. I navigated towards the table to craft a wood pickaxe because it is needed to progress with stone collection. This action was in progress, as I needed the pickaxe to continue. I planned to work towards making a wood pickaxe because it was crucial for assisting Agent 0 with their stone pickaxe needs. ### Current Experience - This is episoide 1. It is currently 55 steps into the episoide. You are at loaction [41 3] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 5, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "do".	long_term_goal: make_wood_pickaxe current_goal: collect_wood op: Navigator navigate to: table share: not_applicable target_agent_id: -1	This is agent 4. In Episode: 1; Timestep: 55. My inventory contained wood: 5. In the past, I successfully navigated multiple times to locate trees and tables; I failed to collect stone due to the lack of a wood pickaxe. On collaboration, Agent 3 was gathering stone for Agent 0. I navigated to the table to craft a wood pickaxe because it was necessary for progressing with tool crafting. This action was in progress. I planned to work towards making a wood pickaxe because it was crucial for assisting Agent 0 with their stone pickaxe needs.

agent_id context info summary

a tree".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'make_wood_pickaxe':
 everything is ready, should
 navigate to table;
- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 50: Navigator to tree. .

Collaboration: Need Your Help!!!
Agent 0 is completing its task. You should focus on advancing your tools.
Agent 3 is completing the task.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need

agent_id context info summary help. If they don't need help, you should focus on advancing your tools. **5** 5 long_term_goal: This is agent 5. In ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 5. In Episode: 1; 55. My inventory Timestep: 54. My inventory current_goal: share contained nothing. In contained nothing. In the past, the past, I successfully I successfully navigated to the navigated to the op: noop diamond; I failed to collect it diamond; I failed to due to lacking an iron pickaxe. navigate to: collect it due to lacking diamond On collaboration, I relied on an iron pickaxe. On Agent 4 to share the iron collaboration, I was pickaxe. I faced the diamond share: waiting for Agent 4 to because collecting it was share the iron pickaxe. I not_applicable critical to our team success. faced the diamond This action was in progress, as target_agent_id: 4 because collecting it it required collaboration for was critical to our team the iron pickaxe. I planned to success. This action work towards collecting the was in progress, as it required collaboration diamond because it was the key objective for winning. for the iron pickaxe. I planned to work towards collecting the ### Current Experience - This is episoide 1. It is diamond because it currently 55 steps into the was the key objective for winning. I decided episoide. You are at loaction [8 191. to wait as the next - Facing Direction: You are logical step was dependent on receiving facing a diamond. - Current Health Stats: health: help from Agent 4. 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check:

agent_id info context summary - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 44: noop.; in In step 45: noop.; in In step 46: noop. ; in In step 47: noop.; in In step 48: noop.; in In step 49: noop.; in In step 50: noop.; in In step 51: noop.; in In step 52: noop.; in In step 53: noop. ; in In step 54: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your longterm goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

```
==== total step: 56 current s
tep: 56 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 16
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 31
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
0) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) wit h action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [54]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I attempted to collect stone and share it with Agent 0 but failed due to the lack of stone. Collaboration focused on helping Agent 0 but was unsuccessful because of missing inventory. I navigated to stone to collect it so I can help Agent 0, as per the collaboration policy. This action succeeded, prioritizing extracting stone to support Agent 0's progress. I planned to work towards collecting stone because it's needed to help my assigned agent. ### Current Experience - This is episoide 1. It is currently 56 steps into the episoide. You are at loaction [13 19] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: not_applicable target_agent_id: -1	This is agent [2]. In Episode: [1]; Timestep: [56]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share stone with Agent 0 due to missing inventory. On collaboration, I attempted to help Agent 0 by trying to collect and share stone. I navigated and did actions to collect stone because I needed to assist Agent 0. This action was in progress as I was facing stone and had a wood pickaxe. I planned to work towards collecting stone to meet the collaboration requirements.

12/3/24, 10:53 PM

agent_id context info summary

NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 54: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary	_	This is agent 5. In Episode: 1; Timestep: 56. My

agent_id context info summary This is agent 5. In Episode: 1; inventory contained Timestep: 55. My inventory nothing. In the past, I current_goal: contained nothing. In the past, successfully navigated to a share I successfully navigated to the diamond: I failed to collect diamond; I failed to collect it it due to lacking an iron op: noop due to lacking an iron pickaxe. pickaxe. On collaboration, I On collaboration, I was waiting was waiting for Agent 4 to navigate to: for Agent 4 to share the iron not_applicable share the iron pickaxe. I pickaxe. I faced the diamond faced the diamond because collecting it was because collecting it was share: critical to our team success. not_applicable critical to our team success. This action was in This action was in progress, as target_agent_id: it required collaboration for the progress, as it required iron pickaxe. I planned to work collaboration for the iron towards collecting the diamond pickaxe. I planned to work towards collecting the because it was the key objective for winning. I decided diamond because it was to wait as the logical step was the key objective for dependent on receiving help winning. I decided to wait from Agent 4. as the logical step was dependent on receiving ### Current Experience help from Agent 4. - This is episoide 1. It is currently 56 steps into the episoide. You are at loaction [8 191. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to

help the agent immediately if

agent_id info context summary you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 55: noop. . ### Collaboration: Need Your While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. 16%| | 57/350 [09:02<46:30, 9.52s/it]

file:///Users/alberty/Downloads/six_agent_mem_comm.html

```
==== total step: 57 current s
tep: 57 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 15
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 12
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 30
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!



	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1] ; Timestep: [56]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share stone with Agent 0 due to missing inventory. On collaboration, I attempted to help Agent 0 by trying to collect and share stone. I navigated and did actions to collect stone because I needed to assist Agent 0. This action was in progress as I was facing stone and had a wood pickaxe. I planned to work towards collecting stone to meet the collaboration requirements. ### Current Experience - This is episoide 1. It is currently 57 steps into the episoide. You are at loaction [13 19] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [57]. My inventory contained [2 wood, 1 wood_pickaxe, 1 stone]. In the past, I successfully gathered stone however I failed to share stone with Agent 0 previously due to execution errors. On collaboration, I correctly identified Agent 0 needing stone and shared it successfully. I shared a stone because Agent 0 required it for their tasks and I had it ready in my inventory. This action succeeded, enhancing team progression. I planned to work towards helping agents as it accelerates the team's success.

agent_id context info summary

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 56: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 56. My inventory contained nothing. In the past, I	long_term_goal: collect_diamond current_goal: share	This is agent 5. In Episode: 1; Timestep: 57. My inventory contained nothing. In the past, I attempted waiting actions

agent_id context info summary successfully navigated to a using "noop" due to diamond; I failed to collect it missing an iron pickaxe. I op: noop due to lacking an iron pickaxe. could not collect the On collaboration, I was waiting navigate to: diamond because I lacked for Agent 4 to share the iron not_applicable the necessary tool. On pickaxe. I faced the diamond collaboration, I was because collecting it was waiting for Agent 4 to share: critical to our team success. not_applicable share the iron pickaxe. I This action was in progress, as attempted to collect the it required collaboration for the diamond by waiting for target_agent_id: iron pickaxe. I planned to work help. This action was in towards collecting the diamond progress as the tool was because it was the key not in my inventory. I objective for winning. I decided planned to work towards to wait as the logical step was collecting the diamond because it was the priority dependent on receiving help from Agent 4. objective to complete the game. ### Current Experience - This is episoide 1. It is currently 57 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal

'share' will work if and only if you have the material in your

agent_id info context summary inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 55: noop.; in In step 56: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. 17%| | 58/350 [09:12<46:19, 9.52s/it]

```
==== total step: 58 current s
tep: 58 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 14
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 29
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Ready* 'make_stone_pickaxe'
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.N0 T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [57]. My inventory contained [2 wood, 1 wood_pickaxe, 1 stone]. In the past, I successfully gathered stone however I failed to share stone with Agent 0 previously due to execution errors. On collaboration, I correctly identified Agent 0 needing stone and shared it successfully. I shared a stone because Agent 0 required it for their tasks and I had it ready in my inventory. This action succeeded, enhancing team progression. I planned to work towards helping agents as it accelerates the team's success. ### Current Experience - This is episoide 1. It is currently 58 steps into the episoide. You are at loaction [13 19] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with	long_term_goal: help_agent current_goal: make_wood_pickaxe op: Navigator navigate to: stone share: not_applicable target_agent_id: -1	This is agent [2]. In Episode: [1]; Timestep: [58]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully shared stone with Agent 0; I failed to advance to tool crafting due to lack of stone. On collaboration, Agent 0 needed stone, and I was able to supply it. I navigated towards stone because I needed to gather more for crafting a stone pickaxe. This action succeeded since I faced available resources. I planned to work towards helping agents as needed but pivoted to resource collection when no help was required.

agent_id context info summary

agent 0".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 57: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your
ultimate goal is help_agent 0
and help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools
that are not needed by the
agents.
Try to help the agents of they

Try to help the agents. If they don't need help, you should focus on advancing your tools.

If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who

	agent_id	context	info	summary
		need help. If they don't need help, you should focus on advancing your tools.		
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 57. My inventory contained nothing. In the past, I attempted waiting actions using "noop" due to missing an iron pickaxe. I could not collect the diamond because I lacked the necessary tool. On collaboration, I was waiting for Agent 4 to share the iron pickaxe. I attempted to collect the diamond by waiting for help. This action was in progress as the tool was not in my inventory. I planned to work towards collecting the diamond because it was the priority objective to complete the game. ### Current Experience - This is episoide 1. It is currently 58 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 7, energy: 8 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop".	In progress long_term_goal: collect_diamond current_goal: share op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 58. My inventory contained nothing. In the past, I attempted waiting actions using "noop" due to missing an iron pickaxe. I could not collect the diamond because I lacked the necessary tool. On collaboration, I was waiting for Agent 4 to share the iron pickaxe. I attempted to collect the diamond by waiting for help. This action was in progress as the tool was not in my inventory. I planned to work towards collecting the diamond because it was the priority objective to complete the game.

info agent_id context summary Attempted "noop". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 55: noop.; in In step 56: noop.; in In step 57: noop.. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

```
==== total step: 59 current s
tep: 59 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 13
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 28
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move right; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Ready* 'make stone pickaxe'
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Wood pickaxe is already made.
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the m aterial in your inventory. Double check!



agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_stone_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 59. My inventory Timestep: 41. My inventory current goal: contained 1 wood, 4 stone, and 1 contained 1 wood, 1 stone, and make_stone_pickaxe 1 wood_pickaxe. In the past, I wood_pickaxe. In the successfully placed a table; I past, I successfully failed to collect additional make_stone_pickaxe navigated to the table; stones previously due to I failed to progress insufficient 'do' actions. On crafting due to navigate to: collaboration, Agent 1 assisted not_applicable insufficient prior by sharing resources. actions. On I navigated to a table because I share: stone_pickaxe collaboration, Agent 1 shared resources with needed to craft a stone pickaxe. This action was in me. I crafted a stone target_agent_id: 5 progress as I prepared to craft. pickaxe because it is I planned to work towards necessary to advance making a stone pickaxe towards collecting a because it is necessary for diamond. This action further advancements towards was in progress, as I collecting a diamond. had just initiated crafting. I planned to ### Current Experience work towards making a - This is episoide 1. It is stone pickaxe because currently 59 steps into the enhancing tool quality episoide. You are at loaction is crucial for progress. [29 23]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 1, stone: 4, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". ### Crafting Station Availability: - Table: placed alerady; Do

NOT work on place_table

- Furnace: still needs to be

again.

agent_id context info summary placed. ### Prerequisites Check: - For long-term goal: *Ready* 'make_stone_pickaxe' - For immediate goal: should work on long-term goal now. - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 41: Navigator to table.. ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 in progress in progress in progress **2** 2 in progress in progress in progress 3 3 in progress in progress in progress 4 4 in progress in progress in progress **5** 5 long_term_goal: This is agent 5. In ### Last Experience Summary collect_diamond Episode: 1; Timestep: This is agent 5. In Episode: 1; 59. My inventory Timestep: 58. My inventory current_goal: contained nothing. In contained nothing. In the past, collect_diamond the past, I waited by I attempted waiting actions using "noop" actions using "noop" due to missing an due to missing an iron op: noop iron pickaxe. I could not collect pickaxe. On the diamond because I lacked navigate to: diamond collaboration, I was the necessary tool. On waiting for Agent 4 to collaboration, I was waiting for share the iron pickaxe. share: Agent 4 to share the iron I attempted to collect not_applicable pickaxe. I attempted to collect the diamond by the diamond by waiting for target_agent_id: -1 standing by. This help. This action was in action was in progress progress as the tool was not in as the tool was not in my inventory. I planned to work my inventory. I planned towards collecting the diamond to work towards because it was the priority collecting the diamond objective to complete the because it was my game. priority objective. ### Current Experience - This is episoide 1. It is currently 59 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health:

agent_id context info summary 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 55: noop.; in In step 56: noop.; in In step 57: noop. ; in In step 58: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should

navigate to a dimond and collect the diamond. Other

agent_id	context	info	summary
	agents will share the tool with you.		
17%	60/350 [09:34<46:17,	9.58s/it]	

```
==== total step: 60 current s
Knowledge graph saved to results/agent_1/knowledge graph 1.html
length route 12
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 9
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 27
Player 0 is doing (<ActionType.make_stone_pickaxe: 'make_stone_pickaxe'>, <N
avigationDestinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.
STONE PICKAXE: 'stone pickaxe'>, 5) with action make stone pickaxe; current
status: ActionStatus.DONE
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: Stone pickaxe is already made.
  - For immediate goal: Stone pickaxe is already made.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Wood pickaxe is already made.
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













> agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_iron_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 60. My inventory

> > share:

Timestep: 59. My inventory contained 1 wood, 4 stone, and 1 wood_pickaxe. In the past, I successfully navigated to the table; I failed to progress crafting due to insufficient prior actions. On collaboration, Agent 1 shared resources with me. I crafted a stone pickaxe because it is necessary to advance towards collecting a diamond. This action was in progress, as I had just initiated crafting. I planned to work towards making a stone pickaxe because enhancing tool quality is crucial for progress.

Current Experience

- This is episoide 1. It is currently 60 steps into the episoide. You are at loaction [29 23].
- Facing Direction: You are facing a table.
- Current Health Stats: health: 9, food: 7, drink: 7, energy: 8. - Current Inventory: sapling: 0, wood: 0, stone: 3, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1,

iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword:

0.

Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_stone_pickaxe".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be

current goal: contained stone. wood_pickaxe, and make_iron_pickaxe stone_pickaxe. In the op: Navigator past, I successfully navigated to the table and crafted tools; I failed navigate to: iron to make an iron_pickaxe due to missing materials. not_applicable On collaboration, Agent 1 shared resources with me. I crafted a stone target_agent_id: -1 pickaxe because it is necessary to advance towards collecting a diamond. This action was in progress because it does not exist in my inventory. I planned to

work towards making an

enhancing tool quality is

iron_pickaxe because

crucial for progress.

agent_id context info summary placed. ### Prerequisites Check: - For long-term goal: Stone pickaxe is already made. - For immediate goal: Stone pickaxe is already made. - To satisify the prerequiste, you made the following efforts recently towards make_stone_pickaxe: - In step 59: make_stone_pickaxe. . ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 1 1 in progress in progress in progress 2 2 in progress in progress in progress 3 3 in progress in progress in progress 4 4 in progress in progress in progress **5** 5 long_term_goal: This is agent 5. In ### Last Experience Summary collect_diamond Episode: 1; Timestep: 60. This is agent 5. In Episode: 1; My inventory contained Timestep: 59. My inventory current_goal: nothing. In the past, I contained nothing. In the past, collect_diamond waited by using 'noop' I waited by using "noop" actions due to missing actions due to missing an iron op: noop an iron pickaxe. On pickaxe. On collaboration, I collaboration, I was was waiting for Agent 4 to navigate to: waiting for Agent 4 to share the iron pickaxe. I diamond share the iron pickaxe. I attempted to collect the attempted to collect the diamond by standing by. This share: diamond by standing by. action was in progress as the not_applicable This action was in tool was not in my inventory. I progress as the tool was planned to work towards target_agent_id: -1 not in my inventory. I collecting the diamond planned to work towards because it was my priority collecting the diamond objective. because it was my priority objective. I ### Current Experience continued to wait while - This is episoide 1. It is facing the diamond. The currently 60 steps into the action to collect the episoide. You are at loaction [diamond was in 8 19]. progress, but I was Facing Direction: You are unable to proceed further without the facing a diamond. - Current Health Stats: health: necessary tool. I planned 9, food: 7, drink: 7, energy: 8. to wait for the tool - Current Inventory: sapling: 0, because it was essential

info agent_id context summary wood: 0, stone: 0, coal: 0, iron: for completing the 0, diamond: 0, wood_pickaxe: objective. 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

17%| | 61/350 [09:48<46:29, 9.65s/it]

```
==== total step: 61 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 34
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 11
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 8
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 26
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Wood pickaxe is already made.
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati

onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1] ; Timestep: [58]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully shared stone with Agent 0; I failed to advance to tool crafting due to lack of stone. On collaboration, Agent 0 needed stone, and I was able to supply it. I navigated towards stone because I needed to gather more for crafting a stone pickaxe. This action succeeded since I faced available resources. I planned to work towards helping agents as needed but pivoted to resource collection when no help was required. ### Current Experience - This is episoide 1. It is currently 61 steps into the episoide. You are at loaction [11 19] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 7, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: not_applicable target_agent_id: -1	This is agent [2]. In Episode: [1]; Timestep: [61]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share resources effectively due to lack of materials. On collaboration, I focused on advancing my tools while ensuring readiness to help others. I navigated to stone and collected it because it was necessary for crafting a stone pickaxe and helping other agents. This action was in progress, as stone collection started. I planned to work towards helping the agents as needed, focusing on tool advancement when no urgent help was required. Next, I needed to continue gathering resources and crafting tools to remain prepared for collaboration opportunities.

agent_id context info summary

NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Wood pickaxe is already made.
- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 58: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary		This is agent 5. In Episode: 1; Timestep: 61. My

agent_id context info summary This is agent 5. In Episode: 1; inventory contained Timestep: 60. My inventory current_goal: nothing. In the past, I contained nothing. In the past, I collect_diamond awaited an iron pickaxe, as waited by using 'noop' actions it was required to collect due to missing an iron pickaxe. the diamond, my ultimate op: noop On collaboration, I was waiting goal. On collaboration, I for Agent 4 to share the iron relied on receiving help navigate to: pickaxe. I attempted to collect diamond from Agent 4. the diamond by standing by. I waited by using 'noop' This action was in progress as actions because I needed share: the tool was not in my not_applicable the iron pickaxe to inventory. I planned to work proceed. This action was towards collecting the diamond target_agent_id: in progress, as the tool because it was my priority was not yet shared with objective. I continued to wait me. I planned to work while facing the diamond. The towards collecting the action to collect the diamond diamond because it was was in progress, but I was my top-priority objective. I unable to proceed further stayed near the diamond, without the necessary tool. I preparing to collect it once planned to wait for the tool I received the required because it was essential for tool. completing the objective. ### Current Experience - This is episoide 1. It is currently 61 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 7, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed.

Prerequisites Check:
- For long-term goal: *Cannot

agent_id info context summary complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. 18% | 62/350 [09:58<46:18, 9.65s/it]

```
==== total step: 62 current s
tep: 62 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 33
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 10
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 7
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 25
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) wit h action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [61]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share resources effectively due to lack of materials. On collaboration, I focused on advancing my tools while ensuring readiness to help others. I navigated to stone and collected it because it was necessary for crafting a stone pickaxe and helping other agents. This action was in progress, as stone collection started. I planned to work towards helping the agents as needed, focusing on tool advancement when no urgent help was required., I needed to continue gathering resources and crafting tools to remain prepared for collaboration opportunities. ### Current Experience - This is episoide 1. It is currently 62 steps into the episoide. You are at loaction [11 19] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [62]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share resources effectively due to lack of materials initially. On collaboration, I focused on advancing my tools while ensuring readiness to help others. I shared a stone with Agent 0 because they required it for their progress. This action succeeded because it was in my inventory. I planned to work towards helping the agents as needed, focusing on tool advancement when no urgent help was required. Moving forward, I need to continue gathering resources and crafting tools to remain prepared for collaboration opportunities.

agent_id context info summary

to a stone". Attempted "do".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 61: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

	agent_id	context	info	summary
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 61. My inventory contained nothing. In the past, I awaited an iron pickaxe, as it was required to collect the diamond, my ultimate goal. On collaboration, I relied on receiving help from Agent 4. I waited by using 'noop' actions because I needed the iron pickaxe to proceed. This action was in progress, as the tool was not yet shared with me. I planned to work towards collecting the diamond because it was my top-priority objective. I stayed near the diamond, preparing to collect it once I received the required tool. ### Current Experience - This is episoide 1. It is currently 62 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Facing Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 62. My inventory contained nothing. In the past, I waited for an iron pickaxe to collect the diamond. On collaboration, I relied on Agent 4 to share the iron pickaxe. I faced the diamond because I was ready to collect it as soon as I got the tool. This action was in progress since the tool wasn't shared with me yet. I planned to work towards collecting the diamond because it was urgent.

agent_id info context summary placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

18% [63/350 [10:13<46:33, 9.73s/it]

```
==== total step: 63 current s
tep: 63 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 32
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 9
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 6
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 24
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,

-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent 5/knowledge graph 1.html

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
1 2	1 2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [62]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. In the past, I successfully navigated to stone; I failed to share resources effectively due to lack of materials initially. On collaboration, I focused on advancing my tools while ensuring readiness to help others. I shared a stone with Agent 0 because they required it for their progress. This action succeeded because it was in my inventory. I planned to work towards helping the agents as needed, focusing on tool advancement when no urgent help was required. Moving forward, I need to continue gathering resources and crafting tools to remain prepared for collaboration opportunities. ### Current Experience - This is episoide 1. It is currently 63 steps into the episoide. You are at loaction [11 19] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "los attempted "share stone with agent 0". Attempted "los attempted "share stone with agent 0".	in progress long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: stone share: stone target_agent_id: 0	In progress This is agent [2]. In Episode: [1]; Timestep: [63]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully focused on gathering resources; I failed to share stone with Agent 0 due to insufficient materials. On collaboration, I aimed to gather resources proactively. I navigated to stone because I needed to collect it for tool crafting and sharing. This action was in progress. I planned to work towards helping agents by collecting necessary materials.
		Table. placed dictady, Do NOT		

agent_id context info summary

work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal
 'share' will work if and only if you have the material in your inventory. Double check!
 To satisify the prerequiste, you made the following efforts
- recently towards share:
 In step 62: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

required items.
Do not share resources/tools that are not needed by the agents.
Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.
Recosider how you can help the previous agent.
!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary	long_term_goal: collect_diamond	This is agent 5. In Episode: 1; Timestep:

agent_id context info summary This is agent 5. In Episode: 1; 63. My inventory Timestep: 62. My inventory current_goal: contained nothing. In the contained nothing. In the past, I collect_diamond past, I waited for an iron waited for an iron pickaxe to pickaxe to collect the collect the diamond. On diamond. On op: noop collaboration, I relied on Agent 4 collaboration, I relied on to share the iron pickaxe. I faced navigate to: Agent 4 to share the iron the diamond because I was ready diamond pickaxe. I faced the to collect it as soon as I got the diamond because I was tool. This action was in progress share: ready to collect it as since the tool wasn't shared with not_applicable soon as I got the tool. me yet. I planned to work towards This action was in collecting the diamond because it progress since the tool target_agent_id: was urgent. wasn't shared with me yet. I planned to work ### Current Experience towards collecting the - This is episoide 1. It is currently diamond because it was 63 steps into the episoide. You urgent. are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.;

in In step 62: noop. .

agent_id	context		info	summary
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
18%	64/350 [10:22<46:23,	9.73s/it]		

```
==== total step: 64 current s
tep: 64 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 31
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 23
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 63. My inventory contained nothing. In the past, I waited for an iron pickaxe to collect the diamond. On collaboration, I relied on Agent 4 to share the iron pickaxe. I faced the diamond because I was ready to collect it as soon as I got the tool. This action was in progress since the tool wasn't shared with me yet. I planned to work towards collecting the diamond because it was urgent. ### Current Experience - This is episoide 1. It is currently 64 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe;	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 64. My inventory contained nothing. In the past, I waited for an iron pickaxe to collect the diamond, performing noop actions repeatedly. On collaboration, I relied on Agent 4 to share the iron pickaxe. I waited facing the diamond because I was prepared to collect it as soon as I received the tool. This action was in progress as the tool wasn't shared with me yet. I planned to work towards collecting the diamond because it was urgent.

agent_id info context summary - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop. ### Collaboration: Need Your While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you. 19%| | 65/350 [10:37<46:33, 9.80s/it]

```
==== total step: 65 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 30
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 22
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;



agent 5











	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [63]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully focused on gathering resources; I failed to share stone with Agent 0 due to insufficient materials. On collaboration, I aimed to gather resources proactively. I navigated to stone because I needed to collect it for tool crafting and sharing. This action was in progress. I planned to work towards helping agents by collecting necessary materials. ### Current Experience - This is episoide 1. It is currently 65 steps into the episoide. You are at loaction [11 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	In progress long_term_goal: help_agent current_goal: collect_stone op: do navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [65]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully collected wood; I failed to share stone with Agent 0 due to insufficient materials. On collaboration, I focused on collecting stone to help Agent 0. I navigated to stone and attempted to collect it because Agent 0 needed stone. This action was in progress because collecting takes multiple attempts. I planned to work towards 'help_agent' because sharing stone with Agent 0 is necessary.

agent_id context info summary

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

- For immediate goal:

Cannot complete
'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts

recently towards collect_wood: - In step 63: Navigator to

stone. .

Collaboration: Need Your Help!!!
Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.
Do not share resources/tools

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary	long_term_goal: collect_diamond	This is agent 5. In Episode: 1; Timestep: 65. My

agent_id context info summary This is agent 5. In Episode: 1; inventory contained Timestep: 64. My inventory current_goal: nothing. In the past, I contained nothing. In the past, collect_diamond attempted to wait for an I waited for an iron pickaxe to iron pickaxe, performing collect the diamond, noop actions repeatedly. op: noop performing noop actions On collaboration, I relied on repeatedly. On collaboration, I Agent 4 to share the iron navigate to: relied on Agent 4 to share the diamond pickaxe. I waited facing the iron pickaxe. diamond because I was I waited facing the diamond share: prepared to collect it as because I was prepared to not_applicable soon as I received the tool. collect it as soon as I received This action was in progress the tool. This action was in as the tool wasn't shared target_agent_id: progress as the tool wasn't with me yet. I planned to shared with me yet. I planned work towards collecting the to work towards collecting the diamond because it was diamond because it was urgent. urgent. ### Current Experience - This is episoide 1. It is currently 65 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal:

```
==== total step: 66 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 29
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 21
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.NOT_AP
PICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,

-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html

agent_5
Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [65]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully collected wood; I failed to share stone with Agent 0 due to insufficient materials. On collaboration, I focused on collecting stone to help Agent 0. I navigated to stone and attempted to collect it because Agent 0 needed stone. This action was in progress because collecting takes multiple attempts. I planned to work towards 'help_agent' because sharing stone with Agent 0 is necessary. ### Current Experience - This is episoide 1. It is currently 66 steps into the episoide. You are at loaction [11 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again.	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [66]. My inventory contained [2 wood, 1 stone, 1 wood_pickaxe]. In the past, I successfully collected wood and stone; I failed to share stone with Agent 0 due to timing. On collaboration, Agent 0 needed stone, so I focused on collecting and sharing it. I shared stone with Agent 0 because they required it for their task. This action succeeded. I planned to work towards 'help_agent' because sharing stone with Agent 0 is necessary by the collaboration policy.

six_agent_mem_comm summary agent_id context info - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 65: do. . ### Collaboration: Need Your Agent 0 is completing its task. You should focus on advancing your tools. Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1;	long_term_goal: collect_diamond	This is agent 5. In Episode: 1; Timestep: 66. My inventory contained no

Recosider how you can help

!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing

the previous agent.

your tools.

agent_id context info summary Timestep: 65. My inventory current_goal: items. In the past, I contained nothing. In the past, collect_diamond repeatedly attempted noop I attempted to wait for an iron actions while waiting for an pickaxe, performing noop op: noop iron pickaxe from Agent 4. This was because I actions repeatedly. On planned to collect a collaboration, I relied on Agent navigate to: 4 to share the iron pickaxe. I diamond diamond as soon as the waited facing the diamond tool was shared. The because I was prepared to share: action was still in progress collect it as soon as I received because I hadn't received not_applicable the tool. This action was in the iron pickaxe yet. On progress as the tool wasn't collaboration, I relied on target_agent_id: shared with me yet. I planned Agent 4 to share the required tool. I intended to to work towards collecting the diamond because it was collect the diamond as soon as possible, being my urgent. primary mission. ### Current Experience - This is episoide 1. It is currently 66 steps into the episoide. You are at loaction [8 191. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste,

agent_id	context	info	summary
	you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 63: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.		
19%	67/350 [10:56<46:14,	9.80s/it]	

```
==== total step: 67 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 28
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 20
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'make_wood_pickaxe'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	con	text	in	ıfo	summary
0	0	in progress		in progress	in	progress
1	1	in progress		in progress	in	progress
2	2	### Last Experience Summary This is agent [2]. In Episod [1]; Timestep: [66]. My inventory contained [2 wo 1 stone, 1 wood_pickaxe]. the past, I successfully collected wood and stone failed to share stone with Agent 0 due to timing. On collaboration, Agent 0 needed stone, so I focuse on collecting and sharing shared stone with Agent 0 because they required it for their task. This action succeeded. I planned to w towards 'help_agent' because sharing stone with Agent 0 necessary by the collaboration policy. ### Current Experience - This is episoide 1. It is currently 67 steps into the episoide. You are at loacti [11 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling 0, wood_pickaxe: 0, iron_pickaxe: 0, wood_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone w agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0 Attempted "navigate to a stone". Attempted "do". Attempted "havigate to a stone". Attempted "do". Attempted "share stone w agent 0". Attempted "share stone w agent 0".	ood, In ; I dit. I) or work ause 0 is e on e , ng: 0, word: with ed ".	long_term_goahelp_agent current_goal: collect_stone op: Navigator navigate to: stone share: not_applicable target_agent_i-1	al: Th [1] inv wo th sh fai su ea att bu inv e na co ac pla co he ad	nis is agent [2]. In Episode: ; Timestep: [67]. My ventory contained [2 pod, 1 wood_pickaxe]. In e past, I attempted to are stone with agent 0 but led due to lack of stone; I ccessfully collected wood rlier. On collaboration, I tempted to assist agent 0, t could not due to ventory limitations. I vigated to a stone cause it was necessary r sharing with agent 0 cording to the llaboration policy. This tion succeeded as vigating brought me part to the stone. I anned to work towards llecting tools to ultimately lp agents because vancing my tools would d in meeting the llaboration policy.

agent_id context info summary

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
 To satisify the prerequiste, you made the following efforts recently towards share:
- In step 66: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools
that are not needed by the
agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools.

If you are not sure what to do, share stone to agent 0.
Recosider how you can help the previous agent.
!!!Determine your current goal based on agents who need help. If they don't need

### Last Experience collect_diamond 1; Timestep: 6 Summary inventory contained no items. In the past, I repeatedly attempted noop actions while waiting for an iron pickaxe from Agent 4. This was because I planned to collect a diamond as soon as the tool was shared. The collect_diamond inventory contained inventory collect_diamond repeatedly attractions awaiting actions awaiting actions awaiting collaboration, an iron pickaxe from Agent 4. This was because I planned diamond required tool. as the tool was shared. The	
in progress This is agent 5 collect_diamond 1; Timestep: 6 summary This is agent 5. In Episode: 1; Timestep: 66. My inventory contained no items. In the past, I repeatedly attempted noop actions while waiting for an iron pickaxe from Agent 4. This was because I planned to collect a diamond as soon as the tool was shared. The in progress In progress 1; Timestep: 6 in collect_diamond collect_diamond repeatedly attempted op: noop pickaxe from Agent 4 actions awaitin collaboration, navigate to: diamond required tool. a diamond loc ensure reading	
### Last Experience	
### Last Experience collect_diamond 1; Timestep: 6 Summary inventory cont This is agent 5. In Episode: 1; current_goal: items. In the p Timestep: 66. My inventory collect_diamond repeatedly att contained no items. In the past, I repeatedly attempted noop actions while waiting for an iron pickaxe from Agent 4. This was because I planned to collect a diamond as soon as the tool was shared. The	
because I hadn't received the iron pickaxe yet. On target_agent_id: progress because collaboration, I relied on -1 pickaxe was not agent 4 to share the required tool. I intended to collect the tool. This action progress because target_agent_id: progress_agent_id: pr	ntained no past, I ttempted noop ting an iron Agent 4. On In, I depended on hare the I navigated to location to location to loce I receive the tion was in cause the iron not yet shared lanned to work

info agent_id context summary NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop... ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

```
==== total step: 68 current s
tep: 68 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 27
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 19
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'make wood pickaxe'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html

agent_5
Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [67]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I attempted to share stone with agent 0 but failed due to lack of stone; I successfully collected wood earlier. On collaboration, I attempted to assist agent 0, but could not due to inventory limitations. I navigated to a stone because it was necessary for sharing with agent 0 according to the collaboration policy. This action succeeded as navigating brought me closer to the stone. I planned to work towards collecting tools to ultimately help agents because advancing my tools would aid in meeting the collaboration policy. ### Current Experience - This is episoide 1. It is currently 68 steps into the episoide. You are at loaction [11 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone".	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: stone target_agent_id: 0	This is agent [2]. In Episode: [1]; Timestep: [68]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to a stone; I failed to collect and share stone with agent 0. On collaboration, I was unable to assist due to lack of stone. I navigated to stone because fulfilling the resource-sharing need was necessary. This action succeeded as I positioned myself correctly. I planned to work towards helping agents by collecting and sharing resources, because assisting agent 0 is essential according to the collaboration policy.

agent_id context info summary ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Ready* 'collect_stone' - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 67: Navigator to stone.. ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **3** 3 This is agent 3. In long_term_goal:

help_agent

Last Experience Summary

Episode: 1; Timestep:

agent_id context info summary This is agent 3. In Episode: 1; 68. My inventory Timestep: 44. My inventory contained wood (2). In current_goal: contained nothing useful for the past, I successfully make_wood_pickaxe current tasks. In the past, I shared wood with successfully shared wood with Agent 0; I failed to op: collect stone due to the Agent 0; I failed to collect make_wood_pickaxe stone due to the lack of a lack of a wood pickaxe. wood pickaxe. On navigate to: On collaboration, I collaboration, Agent 0 needed not_applicable recognized the need to stone for crafting, but I could help Agent 2 collect not provide it yet. share: stone by crafting a I navigated to a stone, stone_pickaxe pickaxe. I crafted a intending to collect it, but wood pickaxe because I failed due to lacking a pickaxe. target_agent_id: 2 needed it to collect This action failed because of stone to help others. this missing tool. I planned to This action succeeded, work towards crafting a wood satisfying pickaxe to enable collecting prerequisites. I planned stone for Agent 0, recognizing to work towards my need to assist his task crafting a stone completion. pickaxe because Agent I planned to navigate to a table 2 needed it to collect to enable crafting the stones. necessary pickaxe. ### Current Experience - This is episoide 1. It is currently 68 steps into the episoide. You are at loaction [31 23]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table

agent_id context info summary - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Ready* 'make_wood_pickaxe' - To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe: - In step 44: Navigator to table.. ### Collaboration: Need Your Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is working on 'collect_stone' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

Recosider how you can help

!!!Determine your current goal based on agents who need

the previous agent.

help. If they don't need help, you should focus on advancing your tools. 4 4 in progress in progress in progress 5 5 long_term_goal: This is agent 5 ### Last Experience Summary Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Current_goal: Contained no items. In the Collect_diamond Episode: 1; Timestep: 67. My inventory Collect_diamond Episode: 1; Timestep: 68. My inventory Collect_diamond Episode: 1; Timestep: 67. My inventory Collect_diamond Episode: 1; Timestep: 68. My inventory Collect_diamond Episode: 1; Timestep	Fimestep: Intory
### Last Experience Summary collect_diamond Episode: 1; Ting This is agent 5. In Episode: 1; Timestep: 67. My inventory contained no items. In the past, I repeatedly attempted noop actions awaiting an iron pickaxe from Agent 4. On collaboration, I depended on Agent 4 to share the required nogal: contained no items. In the collect_diamond the past, I successed in the pa	Fimestep: Intory
### Last Experience Summary collect_diamond Episode: 1; Tin This is agent 5. In Episode: 1; 68. My inventory Timestep: 67. My inventory current_goal: contained no items. In the collect_diamond the past, I suct past, I repeatedly attempted navigated to the noop actions awaiting an iron op: noop diamond locat pickaxe from Agent 4. On collaboration, I depended on navigate to: diamond without Agent 4 to share the required not_applicable iron_pickaxe.	Fimestep: Intory
location to ensure readiness for collection once I receive the tool. This action was in progress because the iron pickaxe was not yet shared with me. I planned to work towards collecting the diamond once the tool was available. ### Current Experience - This is episoide 1. It is currently 68 steps into the episoide. You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_sword: 0, stone_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted	chout an e. On n, I was agent 4 to n pickaxe aited at the ration reeded the roceed. was in cause the ryet shared anned to is collecting it because it

agent_id context info summary placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop. ; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with

20%|

you.

| 69/350 [11:28<46:43, 9.98s/it]

```
==== total step: 69 current s
tep: 69 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 26
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 6
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 18
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.make_wood_pickaxe: 'make_wood_pickaxe'>, <Nav
igationDestinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.ST</pre>
ONE PICKAXE: 'stone pickaxe'>, 2) with action make wood pickaxe; current sta
tus: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Wood pickaxe is already made.
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
	1 2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [68]. My inventory contained [2 wood, 1 wood_pickaxe]. In the past, I successfully navigated to a stone; I failed to collect and share stone with agent 0. On collaboration, I was unable to assist due to lack of stone. I navigated to stone because fulfilling the resource-sharing need was necessary. This action succeeded as I positioned myself correctly. I planned to work towards helping agents by collecting and sharing resources, because assisting agent 0 is essential according to the collaboration policy. ### Current Experience - This is episoide 1. It is currently 69 steps into the episoide. You are at loaction [11 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table	in progress long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: stone target_agent_id: 0	in progress This is agent [2]. In Episode: [1]; Timestep: [69]. My inventory contained [wood: 2, stone: 1, wood_pickaxe: 1]. In the past, I successfully navigated to stone; I attempted to share stone with agent 0. On collaboration, I prioritized helping Agent 0, which I am now positioned to do. I shared a stone because agent 0 needed it to complete their task. This action succeeded as I had stone in my inventory. I planned to work towards helping agents because collaboration is emphasized in our strategy.

agent_id context info summary

again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 68: do. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3

Last Experience Summary This is agent 3. In Episode: 1; Timestep: 68. My inventory contained wood (2). In the past, I successfully shared long_term_goal: make_stone_pickaxe

current_goal: collect_stone

This is agent 3. In Episode: 1; Timestep: 69. My inventory contained wood (1), wood_pickaxe (1). In the past, I successfully

agent_id context info summary wood with Agent 0; I failed to op: Navigator crafted a wood collect stone due to the lack of pickaxe; I failed to a wood pickaxe. On support Agent 2 navigate to: stone collaboration, I recognized the effectively due to lack need to help Agent 2 collect share: of resources. On stone by crafting a pickaxe. I not_applicable collaboration, I noticed crafted a wood pickaxe that Agents 0 and 2 because I needed it to collect did not need target_agent_id: -1 stone to help others. This immediate help, so I action succeeded, satisfying focused on advancing prerequisites. I planned to my tools by planning to work towards crafting a stone collect stone for a pickaxe because Agent 2 stone pickaxe. I needed it to collect stones. navigated to find stone to support my tool ### Current Experience progression, crucial for - This is episoide 1. It is assisting other agents currently 69 steps into the efficiently in the future. episoide. You are at loaction [31 23]. - Facing Direction: You are facing a table. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Wood

agent_id info context summary pickaxe is already made. - To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe: - In step 68: make_wood_pickaxe... ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **4** 4 in progress in progress in progress

4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 68. My inventory contained no items. In the past, I successfully navigated to the diamond location; I failed to collect diamond without an iron_pickaxe. On collaboration, I was waiting for Agent 4 to share an iron pickaxe with me. I waited at the diamond location because I needed the pickaxe to proceed. This action was in	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: not_applicable share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 69. My inventory contained nothing. In the past, I successfully navigated to the diamond location; I failed to collect the diamond without an iron_pickaxe. On collaboration, I was helped by Agent 4 who was supposed to share an iron pickaxe with me. I patiently waited

agent_id context info summary progress because the tool was facing the diamond not yet shared with me. I because the needed planned to work towards tool wasn't shared yet. collecting the diamond This action was because it is our team's necessary to fulfill our ultimate goal. team goal of collecting the diamond. I planned ### Current Experience to work toward - This is episoide 1. It is collecting the diamond currently 69 steps into the because it is episoide. You are at loaction [imperative to the 8 19]. team's win strategy. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop. ; in In step 62: noop.; in In step 63: noop.; in In step 64: noop. ; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop...

agent_id	context		info	summary
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
20%	70/350 [11:55<47:40,	10.22s/itl		

```
==== total step: 70 current s
tep: 70 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 25
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 5
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 21
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 17
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent [2]. In Episode: [1]; Timestep: [69]. My inventory contained [wood: 2, stone: 1, wood_pickaxe: 1]. In the past, I successfully navigated to stone; I attempted to share stone with agent 0. On collaboration, I prioritized helping Agent 0, which I am now positioned to do. I shared a stone because agent 0 needed it to complete their task. This action succeeded as I had stone in my inventory. I planned to work towards helping agents because collaboration is emphasized in our strategy. ### Current Experience - This is episoide 1. It is currently 70 steps into the episoide. You are at loaction [11 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with	long_term_goal: make_stone_pickaxe current_goal: collect_stone op: Navigator navigate to: stone share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 70. My inventory contained wood: 2, wood_pickaxe: 1. In the past, I successfully shared stone with agent 0; I failed to collect more stone earlier. On collaboration, I was focused on helping Agent 0 by sharing resources but ran out of stone. I navigated to collect more stone because I needed to advance my toolset to be ready to help agents in the future. This action was in progress because my inventory lacked stone. I planned to work towards making a stone pickaxe because it would enable me to increase my resources and capacity to assist other agents.

agent_id context info summary

agent 0".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 69: share stone to target agent. .

Collaboration: Need Your Help!!!
Agent 0 is completing its task. You should focus on advancing your tools.
Agent 1 is completing the task.

Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

!!!Determine your current

	agent_id	context	info	summary
		goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 69. My inventory contained nothing. In the past, I successfully navigated to the diamond location; I failed to collect the diamond without an iron_pickaxe. On collaboration, I was helped by Agent 4 who was supposed to share an iron pickaxe with me. I patiently waited facing the diamond because the needed tool wasn't shared yet. This action was necessary to fulfill our team goal of collecting the diamond. I planned to work toward collecting the diamond because it is imperative to the team's win strategy. ### Current Experience - This is episoide 1. It is currently 70 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop".	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 70. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe with me, and I waited as instructed. I faced the diamond because collecting it is key to our team's win strategy. This action was in progress as I awaited the tool. I planned to work towards collecting the diamond because it fulfills our team goal.

agent_id	context	info	summary
	Attempted "noop".		
	### Crafting Station		
	Availability:		
	- Table: placed alerady; Do		
	NOT work on place_table		
	again. - Furnace: still needs to be		
	placed.		
	### Drava suisitas Chasle		
	### Prerequisites Check: - For long-term goal:		
	Cannot complete		
	'collect_diamond': Missing 1		
	iron_pickaxe;		
	- For immediate goal:		
	Cannot complete		
	'collect_diamond': Missing 1		
	iron_pickaxe;		
	- To satisify the prerequiste, you made the following		
	efforts recently towards		
	collect_diamond:		
	- In step 59: noop. ; in In		
	step 60: noop.; in In step 61:		
	noop.; in In step 62: noop.;		
	in In step 63: noop.; in In		
	step 64: noop. ; in In step 65: noop. ; in In step 66:		
	noop.; in In step 67: noop.;		
	in In step 68: noop.; in In		
	step 69: noop		
	### Collaboration: Need		
	Your Help!!! While other agents are		
	working on		
	make_iron_pickaxe, your		
	long-term goal and current		
	goal is to !!collect diamond!!		
	You should navigate to a		
	diamond, and collect the		
	diamond. Other agent will		
	share the tool with you.		
	### Collaboration Policy		
	You are agent 5. Your goal is		
	to collect diamond. You		
	should navigate to a dimond		
	and collect the diamond.		
	Other agents will share the tool with you.		
	tool with you.		

20%|

| 71/350 [12:03<47:24, 10.19s/it]

```
===== total step: 71 current s
tep: 71 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 24
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 16
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one:
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 70. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe with me, and I waited as instructed. I faced the diamond because collecting it is key to our team's win strategy. This action was in progress as I awaited the tool. I planned to work towards collecting the diamond because it fulfills our team goal. ### Current Experience - This is episoide 1. It is currently 71 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted be gain Furnace: still needs to be placed.	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: not_applicable share: iron_pickaxe target_agent_id: 4	This is agent 5. In Episode: 1; Timestep: 71. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was sharing the iron pickaxe, but there was a delay. I waited to collect the diamond because it is key to our team's success. This action was in progress because I lacked the tool. I planned to work towards collecting the diamond because it fulfills our team goal. I decided to sleep to restore energy while waiting to receive the iron pickaxe, which was necessary for success.

agent_id context info summary ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop.; in In step 69: noop.; in In step 70: noop.. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your longterm goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy

You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

21% | 72/350 [12:14<47:16, 10.20s/it]

```
===== total step: 72 current s
tep: 72 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 23
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 19
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 15
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one:
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.IRON_PICKAXE: 'iron_pickax e'>, 4) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 46. My inventory contained 2 wood. In the past, I successfully navigated through the environment but failed to collect stone due to not having a wood_pickaxe. On collaboration, I intended to help Agent 0 by collecting stone. I navigated towards a table to craft a wood_pickaxe because it is essential for collecting stone and supporting Agent 0. This action was in progress as I needed to craft the pickaxe. I planned to work towards aiding Agent 0 because sharing materials is crucial for our teamwork. ### Current Experience - This is episoide 1. It is currently 72 steps into the episoide. You are at loaction [31 23] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_stone op: make_wood_pickaxe navigate to: stone share: stone target_agent_id: 0	This is agent 1. In Episode: 1; Timestep: 72. My inventory contained 2 wood. In the past, I successfully navigated to a table. I failed to collect stone as I did not have a wood pickaxe. On collaboration, I planned to assist Agent 0 by collecting stone. I crafted a wood_pickaxe because it is essential for gathering stone efficiently. This action succeeded because I faced the table and had enough wood. I planned to work towards helping Agent 0 because sharing resources is crucial for team success.

agent_id context info summary ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree; To satisfy the prerequiste, you made the following efforts recently towards collect_wood: - In step 46: Navigator to table..

Collaboration: Need Your Help!!!

While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately.

Collaboration Policy
You are agent 1. Your ultimate
goal is help_agent 0.
You long-term goal should be
help_agent 0. Your current goal
should be collect and share
stone.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 70. My inventory contained wood: 2, wood_pickaxe: 1. In the past, I successfully shared stone with agent 0; I failed to collect more stone earlier. On collaboration, I was focused on helping Agent 0 by sharing resources but ran out of stone. I navigated to collect more stone because I needed to advance my toolset to be ready to help agents in the future. This action was in progress because my inventory lacked stone. I planned to work towards making a stone pickaxe because it would enable me to increase my resources and capacity to assist other agents.

Current Experience

long_term_goal: help_agent

current_goal: collect_stone

op: do

navigate to: stone

share: not_applicable

target_agent_id: -1

This is agent 2. In Episode: 1; Timestep: 72. My inventory contained wood: 2, wood_pickaxe: 1. In the past, I successfully navigated to a stone; I failed to collect stone due to timing issues. On collaboration, I tried helping Agent 0 by sharing stone but lacked resources. I attempted to collect stone because I needed it to make a stone pickaxe and share resources with agents. This action was in progress because my inventory lacked stone. I planned to work towards helping Agent

agent_id context info summary - This is episoide 1. It is 0 because currently 72 steps into the collaboration is our episoide. You are at loaction [10 priority. 201. - Facing Direction: You are facing a stone. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 stone: - For immediate goal: *Ready* 'collect_stone' - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 70: Navigator to stone.. ### Collaboration: Need Your Help!!! Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. agent_id

	· -			
		If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help, If they don't need help, you should focus on advancing		
		your tools.		
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 71. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was sharing the iron pickaxe, but there was a delay. I waited to collect the diamond because it is key to our team's success. This action was in progress because I lacked the tool. I planned to work towards collecting the diamond because it fulfills our team goal. I	long_term_goal: collect_diamond current_goal: collect_diamond op: sleep navigate to: not_applicable share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 72. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was sharing the iron pickaxe, but there was a delay. I slept to recover energy while waiting for the iron pickaxe because it's essential for collecting the

context

info

summary

agent_id context info summary decided to sleep to restore diamond. This action energy while waiting to receive was planned because the iron pickaxe, which was energy recovery is necessary for success. necessary while inactive. I planned to ### Current Experience work towards - This is episoide 1. It is collecting the diamond currently 72 steps into the because it fulfills our episoide. You are at loaction [8 team goal. 191. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 7, drink: 6, energy: 7. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: ### Past Actions The last 7 actions are: Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop.; in In step 69: noop.; in In step 70: noop.; in In step 71: noop. .

agent_id	context		info	summary
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
21%	73/350 [12:29<47:24,	10.27s/it]		

```
==== total step: 73 current s
tep: 73 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 22
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 14
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.make wood pickaxe: 'make wood pickaxe'>, <Nav
igationDestinationItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0)
with action make wood pickaxe; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 72. My inventory contained 2 wood. In the past, I successfully navigated to a table. I failed to collect stone as I did not have a wood pickaxe. On collaboration, I planned to assist Agent 0 by collecting stone. I crafted a wood_pickaxe because it is essential for gathering stone efficiently. This action succeeded because I faced the table and had enough wood. I planned to work towards helping Agent 0 because sharing resources is crucial for team success. ### Current Experience - This is episoide 1. It is currently 73 steps into the episoide. You are at loaction [31 23] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a table". Attempted "navigate to a table. Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent 1. In Episode: 1; Timestep: 73. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully crafted a wood pickaxe at a table; I failed to collect stone as I didn't navigate to the right location. On collaboration, I planned to assist Agent 0 by collecting stone and sharing it. I navigated to a virtual location that would allow me to collect stone because I needed to help Agent 0. This action was in progress, as I needed to reach and successfully gather stone. I planned to work towards helping my team by sharing resources promptly.

agent_id context info summary inventory. - For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 72: make_wood_pickaxe... ### Collaboration: Need Your While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 72. My inventory contained wood: 2, wood_pickaxe: 1. In the past, I successfully navigated to a stone; I failed to collect stone due to timing issues. On collaboration, I tried helping Agent 0 by sharing stone but lacked resources. I attempted to collect stone because I needed it to make a stone pickaxe and share resources with agents. This action was in progress because my inventory lacked stone. I planned to work towards helping Agent 0 because collaboration is our priority.

Current Experience

- This is episoide 1. It is currently 73 steps into the episoide. You are at loaction [10 20].
- Facing Direction: You are facing a path.
- Current Health Stats: health: 9, food: 7, drink: 6, energy: 7.

long_term_goal: help_agent

current_goal: collect_stone

op: Navigator

navigate to: stone

share: not_applicable

target_agent_id: -1 This is agent 2. In Episode: 1; Timestep: 73. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources; I failed to collect stone due to delays. On collaboration, I intended to help Agent 0 by providing resources but lacked sufficient stone. I navigated to collect more stone because it's needed to assist Agent 0 with crafting. This action was in progress due to resource constraints. I planned to work towards helping Agent 0 because collaboration is essential for victory.

- Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions

The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 72: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

agent_id info context summary Agent 1 is completing the task. ### Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.

3 3	in progress	in progress	in progress
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
21%	74/350 [12:40<47:17,	10.28s/it]	

```
==== total step: 74 current s
tep: 74 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 21
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 21
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 17
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 13
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
one:
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 73. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources; I failed to collect stone due to delays. On collaboration, I intended to help Agent 0 by providing resources but lacked sufficient stone. I navigated to collect more stone because it's needed to assist Agent 0 with crafting. This action was in progress due to resource constraints. I planned to work towards helping Agent 0 because collaboration is essential for victory. ### Current Experience - This is episoide 1. It is currently 74 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: stone target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 74. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources; I failed to collect stone due to delays. On collaboration, Agent 0 needed help with crafting an iron pickaxe but lacked necessary materials. I continued to 'do' to collect stone because it is needed to assist Agent 0 with crafting. This action was in progress due to facing the correct material. I planned to work towards helping Agent 0 because collaboration is essential for victory.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 73: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need

agent_id	context	info	sun	nmary
	help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
21%	75/350 [12:48<46:58,	10.25s/it]		

```
==== total step: 75 current s
tep: 75 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 20
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 20
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 12
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
1 2	1 2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 74. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources; I failed to collect stone due to delays. On collaboration, Agent 0 needed help with crafting an iron pickaxe but lacked necessary materials. I continued to 'do' to collect stone because it is needed to assist Agent 0 with crafting. This action was in progress due to facing the correct material. I planned to work towards helping Agent 0 because collaboration is essential for victory. ### Current Experience - This is episoide 1. It is currently 75 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 7, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 2, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	in progress long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: coal share: not_applicable target_agent_id: -1	in progress This is agent 2. In Episode: 1; Timestep: 75. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully had some navigation but failed to collect stone due to repeated obstacles. On collaboration, I needed to help Agent 0 gather materials for an iron pickaxe, but lacked the necessary resources myself. I navigated towards coal to assist with gathering the needed materials for further crafting success. This action was successful due to facing the right material environment. I planned to work towards helping Agent 0 because it is critical for our collaborative goal.

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 74: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not needed by the
agents.
Try to help the agents. If they

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the

agent_id	context	info	summary
	previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
3 3	in progress	in progress	in progress
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
22%	77/350 [12:59<46:03,	10.12s/it]	

```
==== total step: 76 current s
tep: 76 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 19
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 19
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 11
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.COAL: 'coal'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
```

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make wood pickaxe': everything is
ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.NOT APPLICABLE: 'not appli
cable'>, −1) with action sleep; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
              ======= total step: 77 current s
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 18
Knowledge graph saved to results/agent 1/knowledge graph 1.html
length route 18
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
length route 14
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 10
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
 - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.COAL: 'coal'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 1) with action move_down; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent_2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is rea dy, should navigate to stone;

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_up; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_3/knowledge_graph_1.html agent 3

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st one;
- For immediate goal: *Cannot complete* 'collect_stone': everything is rea
 dy, should navigate to stone;

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

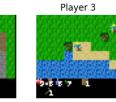
Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
1 2	1 2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 75. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully had some navigation but failed to collect stone due to repeated obstacles. On collaboration, I needed to help Agent 0 gather materials for an iron pickaxe, but lacked the necessary resources myself. I navigated towards coal to assist with gathering the needed materials for further crafting success. This action was successful due to facing the right material environment. I planned to work towards helping Agent 0 because it is critical for our collaborative goal. ### Current Experience - This is episoide 1. It is currently 77 steps into the episoide. You are at loaction [10 21] Facing Direction: You are facing a coal Current Health Stats: health: 9, food: 6, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 2, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a coal". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	in progress long_term_goal: help_agent current_goal: collect_coal op: do navigate to: coal share: not_applicable target_agent_id: -1	in progress This is agent 2. In Episode: 1; Timestep: 77. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully faced the required material but failed to collect coal despite proper alignment. On collaboration, I focused on helping Agent 0 with the necessary resources for crafting but encountered difficulties. I attempted to collect coal because Agent 0 needed it for making an iron pickaxe. This action was in progress; I needed to reassess my technique to collect successfully. I planned to work towards helping Agent 0 because collaboration is crucial for our goal of obtaining the diamond.

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 75: Navigator to coal.

.

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not peeded by the

that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

agent_id	context	ir	nfo	summary
	Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
22%	78/350 [13:06<45:44,	10.09s/it]		

```
==== total step: 78 current s
tep: 78 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 17
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 17
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 9
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 coal; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.COAL:
'coal'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect coal': everything is read
y, should navigate to coal;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_up; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 77. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully faced the required material but failed to collect coal despite proper alignment. On collaboration, I focused on helping Agent 0 with the necessary resources for crafting but encountered difficulties. I attempted to collect coal because Agent 0 needed it for making an iron pickaxe. This action was in progress; I needed to reassess my technique to collect successfully. I planned to work towards helping Agent 0 because collaboration is crucial for our goal of obtaining the diamond. ### Current Experience - This is episoide 1. It is currently 78 steps into the episoide. You are at loaction [10 21] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 2, coal: 1, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a coal". Attempted "navigate to a coal". Attempted "navigate to a coal". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place table again	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: coal target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 78. My inventory contained wood: 2, stone: 2, coal: 1, wood_pickaxe: 1. In the past, I successfully identified necessary items to share with Agent 0 but failed to collect additional coal despite navigation attempts. On collaboration, I prioritized helping Agent 0, who needed materials for crafting an iron pickaxe. I shared coal because Agent 0 required it for their objective. This action succeeded because coal existed in my inventory. I planned to work towards helping Agent 0 because of our collaboration policy, and successful assistance aligns with our diamond mining goal.

NOT work on place_table again.

> - Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_coal': everything is ready, should navigate to coal;
- To satisify the prerequiste, you made the following efforts recently towards collect_coal:
- In step 77: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools

that are not needed by the

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

agent_id	context	inf	fo	summary
	Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
23%	79/350 [13:28<46:13,	10.23s/it]		

```
==== total step: 79 current s
tep: 79 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 16
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 16
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 12
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 8
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.COAL: 'coal'>, 0) with act
ion noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 78. My inventory contained wood: 2, stone: 2, coal: 1, wood_pickaxe: 1. In the past, I successfully identified necessary items to share with Agent 0 but failed to collect additional coal despite navigation attempts. On collaboration, I prioritized helping Agent 0, who needed materials for crafting an iron pickaxe. I shared coal because Agent 0 required it for their objective. This action succeeded because coal existed in my inventory. I planned to work towards helping Agent 0 because of our collaboration policy, and successful assistance aligns with our diamond mining goal. ### Current Experience - This is episoide 1. It is currently 79 steps into the episoide. You are at loaction [10 21] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 2, coal: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a coal". Attempted "do". Attempted "navigate to a coal". Attempted "do". Attempted "share coal with agent 0".	long_term_goal: help_agent current_goal: make_stone_pickaxe op: Navigator navigate to: stone share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 79. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, but now they do not need further assistance from me. I navigated towards stone because my current goal is to craft a stone pickaxe and I need more stone for this goal. This action remained in progress as I was still navigating towards stone. I planned to work towards improving my tools because no immediate help was required by agent 0.

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 78: share coal to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your

Agent 1 is completing the task.

tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to

	agent_id	context	info)	summary
		the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3	3	in progress	in progress	in progress	
4	4	in progress	in progress	in progress	
5	5	in progress	in progress	in progress	
2	23%	80/350 [13:47<46:32	2, 10.34s/it]		

```
===== total step: 80 current s
tep: 80 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 15
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 15
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 7
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	conte	ext	info	summary
0	0	in progress	in progress	S	in progress
1	1	in progress	in progress	S	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 79. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigati and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, k now they do not need further assistance from me. I navigated towards stone because my current goal is to craft a stone pickaxe and I need more stone this goal. This action remained progress as I was still navigatin towards stone. I planned to wor towards improving my tools because no immediate help warequired by agent 0. ### Current Experience - This is episoide 1. It is current 80 steps into the episoide. You are at loaction [10 21] Facing Direction: You are facina stone Current Health Stats: health: 9 food: 6, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 2, coal: 0, iron: diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: wood_sword: 0, stone_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a coal". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "havigate to a stone. Table: placed alerady; Do Nowok on place_table again Furnace: still needs to be placed.	long_term, help_agen; current_go share op: share navigate to not_applic out share: store target_age 0 of for in go, k. s.	_goal: t pal: cable ne ent_id:	This is agent 2. In Episode: 1; Timestep: 80. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I shared a stone because agent 0 needed it for their current progress. This action succeeded because I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table;
- To satisify the prerequiste, you made the following efforts recently towards make_stone_pickaxe:
- In step 79: Navigator to stone.

•

Collaboration: Need Your Help!!!

Agent 0 is working on

'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools that

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal

agent_id	context	in	fo	summary
	based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
23%	81/350 [14:01<46:36,	10.39s/it]		

```
==== total step: 81 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 14
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 14
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 6
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 80. My inventory contained wood: 2, stone: 2, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I shared a stone because agent 0 needed it for their current progress. This action succeeded because I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements. ### Current Experience - This is episoide 1. It is currently 81 steps into the episoide. You are at loaction [10 21] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 6, drink: 6, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "share stone with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. Eurace: still peads to be	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: tree share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 81. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I faced a stone because Agent 0 needed it for their current progress. This action succeeded as I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements.

- Furnace: still needs to be

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.

For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
To satisify the prerequiste, you made the following efforts recently towards share:
In step 80: share stone to

target agent. .

Collaboration: Need Your Help!!! Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not needed by the
agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0.

agent_id	context	int	fo	summary
	Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
23%	82/350 [14:18<46:47,	10.47s/it]		

```
==== total step: 82 current s
tep: 82 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 13
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 13
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 9
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 5
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 wood;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS

24%| | 83/350 [14:19<46:03, 10.35s/it]

```
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is
ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.NOT APPLICABLE: 'not appli
cable'>, −1) with action sleep; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect diamond': Missing 1 iron
  - For immediate goal: *Cannot complete* 'collect diamond': Missing 1 iron
pickaxe;
         :======== total step: 83 current s
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
length route 12
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 12
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 4
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n; Missing 1 wood;
 - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n; Missing 1 wood;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -
1) with action move up; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
```

agent 2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is rea
 dy, should navigate to stone;

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_3/knowledge_graph_1.html agent 3

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st one;
- For immediate goal: *Cannot complete* 'collect_stone': everything is rea dy, should navigate to stone;

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent_4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 81. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, 1 successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I faced a stone because Agent 0 needed it for their current progress. This action succeeded as I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements. ### Current Experience - This is episoide 1. It is currently 83 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood. 2, stone: 1, wood_pickaxe 1. In the past, 1 successfully shared coal with agent 0; I failed to collect additional materia due to misplaced actions not_applicable to collect additional materia due to misplaced actions on_applicable to assist agent 0 by sharing wood, as his progress depended on these resources. I share wood because agent 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long- term goal of helping age 0 because collaborative success silly shared coal with agent 0; I failed to collect additional not_applicable to assist agent 0 by sharing wood, as his progress depended on these resources. I share wood because agent 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long- term goal of helping age 0 because collaborative success silve to collect additional nateria due to misplaceto: no_applicable 0 hocause device. 1, rimestep: 83. My inventory 1, lanctor not applicable 0 por collect additional notapitude to: no		agent_id	context	info	summary
### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 81. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I faced a stone because Agent 0 needed it for their current progress. This action succeeded as I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements. ### Current Experience - This is episoide 1. It is currently 83 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, ood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are:	0	0	in progress	in progress	in progress
### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 81. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, 1 successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I faced a stone because Agent 0 needed it for their current progress. This action succeeded as I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements. ### Current Experience - This is episoide 1. It is currently 83 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood. 2, stone: 1, wood_pickax 1. In the past, 1 successfully shared coal with agent 0; I failed to collect additional materia due to misplaced actions no_applicable to collect additional materia due to misplaced actions no_applicable on target_agent_id: 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long- term goal of helping age 0 because collaborative with inventory requirements. I planned to work towards the long- term goal of helping age 0 because collaborative success silly shared coal with agent 0; I failed to collect additional materia due to misplaced actions no_applicable to assist agent 0 by sharing whod, as his progress depended on these resources. I shared wood because agent 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long- term goal of helping age 0 because collaborative success sully share whood prevented wood because agent 0 needed it to continue to assist agent 0 by sharing goal. This action succeeded	1	1	in progress	in progress	in progress
Attempted "do". Attempted "navigate to a coal". Attempted "do". Attempted "share coal with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a tree". ### Crafting Station Availability:			### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 81. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional coal despite navigating and doing actions. On collaboration, I aimed to assist agent 0 by sharing resources, and they required more materials. I faced a stone because Agent 0 needed it for their current progress. This action succeeded as I had stone in my inventory. I planned to work towards the long-term goal of helping agent 0 because they are advancing their tool requirements. ### Current Experience - This is episoide 1. It is currently 83 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a coal". Attempted "navigate to a stone". Attempted "share coal with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a tree". ### Crafting Station	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: wood target_agent_id:	This is agent 2. In Episode: 1; Timestep: 83. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional materials due to misplaced actions. On collaboration, I aimed to assist agent 0 by sharing wood, as his progress depended on these resources. I shared wood because agent 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long- term goal of helping agent 0 because collaborative success is key to achieving

- Table: placed alerady; Do

NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 81: Navigator to tree.

.

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not needed by the
agents.
Try to help the agents. If they

don't need help, you should

	agent_id	context	info		summary
		focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3	3	in progress	in progress	in progress	
4	4	in progress	in progress	in progress	
5	5	in progress	in progress	in progress	
2	24%	84/350 [14:31<45:58,	10.37s/it]		

```
==== total step: 84 current s
tep: 84 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 11
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 11
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 7
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 3
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.WOOD: 'wood'>, 0) with act
ion noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 83. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully shared coal with agent 0; I failed to collect additional materials due to misplaced actions. On collaboration, I aimed to assist agent 0 by sharing wood, as his progress depended on these resources. I shared wood because agent 0 needed it to continue crafting, supporting the team's diamond mining goal. This action succeeded as it aligned with inventory requirements. I planned to work towards the long-term goal of helping agent 0 because collaborative success is key to achieving the ultimate goal. ### Current Experience - This is episoide 1. It is currently 84 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a coal". Attempted "navigate to a coal". Attempted "navigate to a stone". Attempted "share coal with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "hare wood with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do	long_term_goal: help_agent current_goal: share op: Navigator navigate to: tree share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 84. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully shared resources with Agent 0; I failed to progress tools due to prioritizing collaboration. On collaboration, I continued to assist Agent 0 by sharing wood, which was crucial for crafting an iron pickaxe. I shared wood because Agent 0 needed it immediately, aligning with my collaborative long-term goal expectations. My action succeeded as it directly addressed the needs of the team. I planned to work towards gathering more resources, particularly wood, to keep supporting Agent 0 effectively.

NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 83: share wood to target agent. .

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not needed by the
agents.
Try to help the agents. If they
don't need help, you should

focus on advancing your tools.

agent_id	context	info	•	summary
	If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
24%	85/350 [14:45<45:59,	10.41s/it]		

```
==== total step: 85 current s
tep: 85 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
length route 10
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 10
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 6
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 2
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.TABLE: 'table'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_left; current status: ActionStatus.IN_PROGRESS Knowledge graph saved to results/agent_4/knowledge_graph_1.html agent 4

Prerequisites Check:

- For long-term goal: *Cannot complete* 'make_wood_pickaxe': everything is ready, should navigate to table;
 - For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 84. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully shared resources with Agent 0; I failed to progress tools due to prioritizing collaboration. On collaboration, I continued to assist Agent 0 by sharing wood, which was crucial for crafting an iron pickaxe. I shared wood because Agent 0 needed it immediately, aligning with my collaborative long-term goal expectations. My action succeeded as it directly addressed the needs of the team. I planned to work towards gathering more resources, particularly wood, to keep supporting Agent 0 effectively. ### Current Experience - This is episoide 1. It is currently 85 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share coal with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "share wood with agent 0". Attempted "share wood with agent 0". Attempted "share wood with agent 0". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: not_applicable share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 85. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully shared resources with Agent 0; I failed to progress tools due to prioritizing collaboration. On collaboration, I continued to assist Agent 0 by attempting to collect more wood and share resources essential for crafting an iron pickaxe. I attempted a 'do' action facing a tree to gather wood because it was needed by Agent 0 for his current crafting tasks. This action was prepared to succeed, as I was correctly positioned and knew the plan to aid my team was crucial. I planned to work towards help_agent because it's vital to my collaborative strategy, especially when Agent 0 requires wood and other materials I can gather.

placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 84: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is working on

'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy

You are agent 2. Your ultimate goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0.

You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items.

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If

agent_id	co	ntext	info	summary
	they don't need help, you sho focus on advancing your tools			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
25%	86/350 [14:53<45:4	42, 10.39s/it]		

```
==== total step: 86 current s
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 9
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 9
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 5
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 1
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.NOT_AP
PICABLE: 'not applicable'>, <ShareableItems.NOT APPLICABLE: 'not applicabl
e'>, -1) with action do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TABLE: 'table'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
```

-1) with action move_down; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: *Ready* 'make_wood_pickaxe'
- For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;



	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 85. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully shared resources with Agent 0; I failed to progress tools due to prioritizing collaboration. On collaboration, I continued to assist Agent 0 by attempting to collect more wood and share resources essential for crafting an iron pickaxe. I attempted a 'do' action facing a tree to gather wood because it was needed by Agent 0 for his current crafting tasks. This action was prepared to succeed, as I was correctly positioned and knew the plan to aid my team was crucial. I planned to work towards help_agent because it's vital to my collaborative strategy, especially when Agent 0 requires wood and other materials I can gather. ### Current Experience - This is episoide 1. It is currently 86 steps into the episoide. You are at loaction [10 20] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share coal with agent 0". Attempted "navigate to a stone".	long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 86. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards a tree and gathered some wood; I failed to rapidly share the necessary materials with Agent 0 due to insufficient quantity collected. On collaboration, I aimed to assist Agent 0 by collecting and sharing wood needed for crafting an iron pickaxe. I navigated to a tree to gather additional wood because it was strategically important to our team's progress. This action was successful as it allowed me to continue supporting Agent 0. I planned to work towards helping agent because collaboration is prioritized over self-tool advancement.

agent_id context info summary

Attempted "share stone with agent 0". Attempted "navigate to a tree". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "do".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'collect_wood': everything is
 ready, should navigate to
 tree:
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 85: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your Agent 1 is completing the

Collaboration Policy
You are agent 2. Your ultimate

task.

agent_id context info summary goal is help_agent 0 and help_agent 1. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. 3 3 in progress in progress in progress 4 4 This is agent 4. In long_term_goal: ### Last Experience Episode: 1; Timestep: make_wood_pickaxe Summary 86. My inventory This is agent 4. In Episode: 1; current_goal: share contained wood: 5. In Timestep: 55. My inventory the past, I successfully contained wood: 5. In the navigated to the table op: share past, I successfully navigated and was ready to craft a multiple times to locate trees navigate to: wood_pickaxe. On and tables: I failed to collect not_applicable collaboration. I noticed

Last Experience
Summary
This is agent 4. In Episode: 1;
Timestep: 55. My inventory
contained wood: 5. In the
past, I successfully navigated
multiple times to locate trees
and tables; I failed to collect
stone due to the lack of a
wood pickaxe. On
collaboration, Agent 3 was
gathering stone for Agent 0. I
navigated to the table to craft
a wood pickaxe because it
was necessary for
progressing with tool crafting.
This action was in progress. I
planned to work towards
making a wood pickaxe
because it was crucial for
assisting Agent 0 with their
stone pickaxe needs.

Current Experience
- This is episoide 1. It is
currently 86 steps into the
episoide. You are at loaction
[30 22].

- Facing Direction: You are facing a table.

that Agent 0 needed share: wood wood to craft an iron pickaxe. I shared wood target_agent_id: 0 because it was necessary to support Agent 0. This action succeeded. I planned to work towards making a wood pickaxe because it was crucial for progress, but prioritized sharing wood with Agent 0 due to the current collaboration need. I will

proceed with crafting a

wood pickaxe next.

iron_sword: 0.

agent_id context info summary

- Current Health Stats: health: 9, food: 6, drink: 5, energy: 7. - Current Inventory: sapling: 0, wood: 5, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0,

Past Actions
The last 7 actions are:
Attempted "navigate to a
tree". Attempted "do".
Attempted "navigate to a
tree". Attempted "do".
Attempted "navigate to a
stone". Attempted "navigate
to a tree". Attempted
"navigate to a table".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal:
- *Ready*

'make_wood_pickaxe'

- For immediate goal: should work on long-term goal now.
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 55: Navigator to table. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal;

Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal;

Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the

info agent_id context summary other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 3 is working on 'make_stone_pickaxe', Missing 1 stone; He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, vou should focus on

	davarrening your tooler			
5 5	in progress	in progress	in progress	
25%	87/350 [15:00<	45:22, 10.35s/it]		

advancing your tools.

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==== total step: 87 current s
tep: 87 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 8
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 8
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 4
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move right; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.WOOD: 'wood'>, 0) with act
ion noop; current status: ActionStatus.DONE
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: *Ready* 'make_wood_pickaxe'
- For immediate goal: should work on long-term goal now.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 86. My inventory contained wood: 5. In the past, I successfully navigated to the table and was ready to craft a wood_pickaxe. On collaboration, I noticed that Agent 0 needed wood to craft an iron pickaxe. I shared wood because it was necessary to support Agent 0. This action succeeded. I planned to work towards making a wood pickaxe because it was crucial for progress, but prioritized sharing wood with Agent 0 due to the current collaboration need. I will proceed with crafting a wood pickaxe. ### Current Experience - This is episoide 1. It is currently 87 steps into the episoide. You are at loaction [30 22] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 4, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "navigate to a	long_term_goal: make_wood_pickaxe current_goal: make_wood_pickaxe op: make_wood_pickaxe navigate to: tree share: wood target_agent_id: 0	This is agent 4. In Episode: 1; Timestep: 87. My inventory contained wood: 4. In the past, I successfully shared wood with Agent 0; I navigated to the table and prepared to craft a wood_pickaxe. On collaboration, I noticed Agent 0 needed more resources, and Agent 3 was working on a stone pickaxe. I made a wood pickaxe because it was necessary for tool advancement and supporting others. This action succeeded because I had the required resources and was facing the table. I planned to work towards making a wood pickaxe to advance my capabilities and help my agents, considering current inventory and agent needs.

> summary agent_id context info

> > a table". Attempted "share wood with agent 0".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal:
- *Ready*

'make_wood_pickaxe'

- For immediate goal: should work on long-term goal now.
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 86: share wood to target agent. .

Collaboration: Need Your

Help!!!

Agent 0 is working on

'make_iron_pickaxe', Missing

1 iron; Missing 1 coal;

Missing 1 wood;

He is focusing on

'make_iron_pickaxe', Missing

1 iron; Missing 1 coal;

Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Agent 3 is working on 'make_stone_pickaxe',

Missing 1 stone;

He is focusing on

'collect_stone', everything is ready, should navigate to stone;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

agent_id	context	info		summary
	Else, work on advancing your tools.			
	### Collaboration Policy You are agent 4. Your ultimate goal is help_agent 0 and help_agent 3. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
25%	88/350 [15:11<45:12	2, 10.35s/it]		

```
==== total step: 88 current s
tep: 88 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 7
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 7
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 3
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect wood'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.make wood pickaxe: 'make wood pickaxe'>, <Nav
igationDestinationItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) wit
h action make wood pickaxe; current status: ActionStatus.DONE
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Wood pickaxe is already made.
- For immediate goal: Wood pickaxe is already made.

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 86. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards a tree and gathered some wood; I failed to rapidly share the necessary materials with Agent 0 due to insufficient quantity collected. On collaboration, I aimed to assist Agent 0 by collecting and sharing wood needed for crafting an iron pickaxe. I navigated to a tree to gather additional wood because it was strategically important to our team's progress. This action was successful as it allowed me to continue supporting Agent 0. I planned to work towards helping agent because collaboration is prioritized over self-tool advancement. ### Current Experience - This is episoide 1. It is currently 88 steps into the episoide. You are at loaction [10 19] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "havigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place table again	long_term_goal: help_agent current_goal: collect_wood op: do navigate to: tree share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 88. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully gathered wood from a tree; I failed to share materials with Agent 0 due to insufficient resources. On collaboration, I aimed to help Agent 0 by collecting and sharing needed wood for crafting. I collected additional wood from a tree in front of me because it was vital to assist Agent 0. This action succeeded because I had the necessary tools. I planned to continue gathering wood to aid Agent 0 because helping him is our priority.

work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 86: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should prioritize
helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the required
items.

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If

	context	info	summary
	they don't need help, you should focus on advancing your tools.		
3 3	in progress	in progress	in progress
3 3 4 4	### Last Experience Summary This is agent 4. In Episode: 1; Timestep: 87. My inventory contained wood: 4. In the past, I successfully shared wood with Agent 0; I navigated to the table and prepared to craft a wood_pickaxe. On collaboration, I noticed Agent 0 needed more resources, and Agent 3 was working on a stone pickaxe. I made a wood pickaxe because it was necessary for tool advancement and supporting others. This action succeeded because I had the required resources and was facing the table. I planned to work towards making a wood pickaxe to advance my capabilities and help my agents, considering current inventory and agent needs. ### Current Experience - This is episoide 1. It is currently 88 steps into the episoide. You are at loaction [30 22] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "na	in progress long_term_goal: help_agent current_goal: collect_iron op: Navigator navigate to: iron share: iron target_agent_id: 0	In progress This is agent 4. In Episode: 1; Timestep: 88. My inventory contained wood: 3, wood_pickaxe: 1. In the past, I successfully shared wood with Agent 0; I crafted a wood_pickaxe. On collaboration, Agent 0 needed iron, coal, and wood for an iron_pickaxe. I navigated to find iron to support my team. This action was in progress because I had to locate iron and coal. I planned to work towards helping Agent 0 by collecting necessary resources.
	was necessary for tool advancement and supporting others. This action succeeded because I had the required resources and was facing the table. I planned to work towards making a wood pickaxe to advance my capabilities and help my agents, considering current inventory and agent needs. ### Current Experience - This is episoide 1. It is currently 88 steps into the episoide. You are at loaction [30 22] Facing Direction: You are facing a table Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 3, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "navigate to a tree". Attempted "share wood with agent 0". Attempted "make_wood_pickaxe". ### Crafting Station Availability:		navigated to support my taction was in because I had iron and coato work toward Agent 0 by co

placed.

Prerequisites Check:

- For long-term goal: Wood pickaxe is already made.
- For immediate goal: Wood pickaxe is already made.
- To satisify the prerequiste, you made the following efforts recently towards make_wood_pickaxe:
- In step 87: make_wood_pickaxe. .

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him.

If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 3 is working on 'make_stone_pickaxe', Missing 1 stone;

He is focusing on 'collect_stone', everything is ready, should navigate to stone; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy
You are agent 4. Your ultimate
goal is help_agent 0 and
help_agent 3. You should prioritize
helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the required

agent_id	context	info)	summary
	items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
5 5	in progress	in progress	in progress	
25%	89/350 [15:20<44:58, 3	10.34s/it]		

```
==== total step: 89 current s
tep: 89 ========
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 6
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 6
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 32
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.TREE:
'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action do; current status: A
ctionStatus.DONE
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
  - For immediate goal: *Ready* 'collect_stone'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move ri
ght; current status: ActionStatus.IN PROGRESS
```

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
1 2	1 2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 88. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully gathered wood from a tree; I failed to share materials with Agent 0 due to insufficient resources. On collaboration, I aimed to help Agent 0 by collecting and sharing needed wood for crafting. I collected additional wood from a tree in front of me because it was vital to assist Agent 0. This action succeeded because I had the necessary tools. I planned to continue gathering wood to aid Agent 0 because helping him is our priority. ### Current Experience - This is episoide 1. It is currently 89 steps into the episoide. You are at loaction [10 19] Facing Direction: You are facing a grass Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 3, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	In progress long_term_goal: help_agent current_goal: collect_wood op: Navigator navigate to: tree share: wood target_agent_id: 0	In progress This is agent 2. In Episode: 1; Timestep: 89. My inventory contained wood: 3, stone: 1, wood_pickaxe: 1. In the past, I successfully collected wood to assist Agent 0; I attempted to share materials with Agent 0 but lacked sufficient resources earlier. On collaboration, I prioritized helping Agent 0 by gathering wood and preparing to share. I navigated to a tree to collect wood because Agent 0 needed it for crafting. This action succeeded as I was equipped with the necessary tools. I planned to work towards 'help_agent' because aiding Agent 0 is essential for our collective goal.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_wood': everything is ready, should navigate to tree;
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 88: do. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood:

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

agent_id	context	info	0	summary
	!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
3 3	in progress	in progress	in progress	
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
26%	90/350 [15:36<45:05,	10.41s/it]		

```
==== total step: 90 current s
tep: 90 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 5
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 31
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move ri
ght; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': Missing 1 st
  - For immediate goal: *Ready* 'collect stone'
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
```

onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_ri ght; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 69. My inventory contained wood (1), wood_pickaxe (1). In the past, I successfully crafted a wood pickaxe; I failed to support Agent 2 effectively due to lack of resources. On collaboration, I noticed that Agents 0 and 2 did not need immediate help, so I focused on advancing my tools by planning to collect stone for a stone pickaxe. I navigated to find stone to support my tool progression, crucial for assisting other agents efficiently in the future. ### Current Experience - This is episoide 1. It is currently 90 steps into the episoide. You are at loaction [14 22] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share wood with agent 0". Attempted "navigate to a tree". Attempted "navigate to a tree". Attempted "do". Attempted "make_wood_pickaxe". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be	long_term_goal: help_agent current_goal: collect_stone op: do navigate to: stone share: not_applicable target_agent_id: -1	This is agent 3. In Episode: 1; Timestep: 90. My inventory contained wood (1), wood_pickaxe (1). In the past, I attempted to share resources with Agent 0 but failed due to insufficient resources. I navigated to a stone but had yet to collect it. On collaboration, I planned to help Agent 0 by advancing my toolset to a stone pickaxe. I collected stone to advance my tools, leading to better support for Agent 0 in future steps. This action was in progress, as I was prepared to collect stone while facing its position. I planned to work towards helping Agent 0 because it is my ultimate goal. Once I acquire sufficient resources, I'll share and assist as needed.

placed.

Prerequisites Check:

- For long-term goal: *Cannot complete*

'make_stone_pickaxe': Missing 1 stone;

- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 69: Navigator to stone. .

Collaboration: Need Your

Help!!!

Agent 0 is working on

'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 2 is completing the task.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal

agent_id	context	info		summary
	based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
26%	91/350 [15:46<44:53,	10.40s/it]		

```
==== total step: 91 current s
tep: 91 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 4
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 30
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move ri
```

ght; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm
 ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	in progress	in progress	in progress
3	3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 90. My inventory contained wood (1), wood_pickaxe (1). In the past, I attempted to share resources with Agent 0 but failed due to insufficient resources. I navigated to a stone but had yet to collect it. On collaboration, I planned to help Agent 0 by advancing my toolset to a stone pickaxe. I collected stone to advance my tools, leading to better support for Agent 0 in future steps. This action was in progress, as I was prepared to collect stone while facing its position. I planned to work towards helping Agent 0 because it is my ultimate goal. Once I acquire sufficient resources, I'll share and assist as needed. ### Current Experience - This is episoide 1. It is currently 91 steps into the episoide. You are at loaction [14 22] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 7 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "make_wood_pickaxe". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: not_applicable target_agent_id: -1	This is agent 3. In Episode: 1; Timestep: 91. My inventory contained wood (1), stone (1), wood_pickaxe (1). In the past, I successfully navigated to necessary resources; I failed to share resources as I didn't have enough in my inventory. On collaboration, I worked towards helping Agent 0 but needed to advance my tools further. I navigated to stone because I needed to collect more for tool crafting. This action was in progress, as I aimed to support Agent 0. I planned to work towards helping Agent 0 because collaboration is essential for success.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 90: do. .

Collaboration: Need Your

Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.
Else, work on advancing your tools.

Agent 2 is completing the task.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should prioritize
helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon as
you gain access to the required
items.

Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

agent_id	contex	t info		summary
	!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
27%	93/350 [15:54<43:58,	10.27s/it]		

```
==== total step: 92 current s
tep: 92 =======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 3
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 39
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_wood': everything is read
y, should navigate to tree;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
```

```
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect iron': Missing 1 stone pi
ckaxe;
Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.NOT APPLICABLE: 'not appli
cable'>, -1) with action sleep; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 5/knowledge graph 1.html
agent 5
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
  - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
======= total step: 93 current s
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 1
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 38
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move up; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
 - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
n;
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati</pre>
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
```

Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati

onItems.TREE: 'tree'>, <ShareableItems.WOOD: 'wood'>, 0) with action move_ri ght; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html

agent_2

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_wood'

Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action move_down; current status: ActionStatus.ALMOST_DONE Knowledge graph saved to results/agent_3/knowledge_graph_1.html agent 3

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
 - For immediate goal: *Ready* 'collect_stone'

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_le ft; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 89. My inventory contained wood: 3, stone: 1, wood_pickaxe: 1. In the past, I successfully collected wood to assist Agent 0; I attempted to share materials with Agent 0 but lacked sufficient resources earlier. On collaboration, I prioritized helping Agent 0 by gathering wood and preparing to share. I navigated to a tree to collect wood because Agent 0 needed it for crafting. This action succeeded as I was equipped with the necessary tools. I planned to work towards 'help_agent' because aiding Agent 0 is essential for our collective goal. ### Current Experience - This is episoide 1. It is currently 93 steps into the episoide. You are at loaction [11 17] Facing Direction: You are facing a tree Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 3, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "hare wood with agent 0". Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a tree". Attempted "o". Attempted "navigate to a tree". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.	long_term_goal: help_agent current_goal: share op: share navigate to: not_applicable share: wood target_agent_id: 0	This is agent 2. In Episode: 1; Timestep: 93. My inventory contained wood: 3, stone: 1, wood_pickaxe: 1. In the past, I successfully collected wood to assist Agent 0; I attempted to share materials with Agent 0 but lacked sufficient resources earlier. On collaboration, I prioritized helping Agent 0 by gathering wood. I shared wood because Agent 0 needed it for crafting the iron_pickaxe. This action succeeded as I had sufficient wood in my inventory. I planned to work towards 'help_agent' because aiding Agent 0 is essential for our collective goal.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_wood'
- To satisify the prerequiste, you made the following efforts recently towards collect_wood:
- In step 89: Navigator to tree. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood;

If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is working on 'collect_stone'
If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools that
are not needed by the agents.

agent_id context info summary Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **3** 3 long_term_goal: This is agent 3. In ### Last Experience Summary Episode: 1; Timestep: help_agent This is agent 3. In Episode: 1; 93. My inventory Timestep: 91. My inventory current_goal: contained wood (1), contained wood (1), stone (1), collect_stone stone (1), wood_pickaxe wood_pickaxe (1). In the past, I (1). In the past, I successfully navigated to successfully navigated to op: do necessary resources; I failed to stone; I failed to collect share resources as I didn't have navigate to: enough resources to aid enough in my inventory. On Agent 0 when needed stone collaboration, I worked towards most. On collaboration, I helping Agent 0 but needed to share: needed to focus on advance my tools further. I not_applicable advancing tools to share navigated to stone because I resources. I navigated to needed to collect more for tool and collected stone target_agent_id: crafting. This action was in because it was progress, as I aimed to support necessary for crafting a Agent 0. I planned to work stone pickaxe. This towards helping Agent 0 because action was in progress, collaboration is essential for as I aimed to support Agent 0 and Agent 2. I success. planned to work towards ### Current Experience helping other agents - This is episoide 1. It is currently because collaboration 93 steps into the episoide. You enhances resource are at loaction [13 22]. gathering and tool - Facing Direction: You are facing making. a stone. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted

"make_wood_pickaxe".

Attempted "navigate to a stone". Attempted "do". Attempted

six_agent_mem_comm agent_id context info summary "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Ready* 'collect_stone' - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 91: Navigator to stone. ### Collaboration: Need Your Help!!! Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; He is focusing on 'make_iron_pickaxe', Missing 1 iron; Missing 1 coal; Missing 1 wood; If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is working on 'collect_wood' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and

agent_id	context	t info	summary
	help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4 4	in progress	in progress	in progress
5 5	in progress	in progress	in progress
27%	94/350 [16:05<43:49,	10.27s/it]	

```
==== total step: 94 current s
tep: 94 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 37
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move_right; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': Missing 1 iro
  - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect stone'
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.WOOD: 'wood'>, 0) with act
ion noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
```

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













info agent_id context summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_iron_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 94. My inventory Timestep: 60. My inventory current goal: contained wood, stone, contained stone, collect_iron coal, wood_pickaxe, and wood_pickaxe, and stone_pickaxe. In the stone_pickaxe. In the past, I op: do past, I successfully successfully navigated to the navigated to the iron table and crafted tools; I failed location, but couldn't navigate to: iron to make an iron_pickaxe due collect iron yet. Agent 1 to missing materials. On share: shared resources with not_applicable collaboration, Agent 1 shared me. resources with me. I crafted a I navigated to face iron stone pickaxe because it is because I need it to target_agent_id: -1 necessary to advance towards make an iron pickaxe. My collecting a diamond. This long term goal is to make action was in progress an iron pickaxe, as it's because it does not exist in my essential for collecting inventory. I planned to work diamonds. I planned to towards making an continue collecting iron, iron_pickaxe because as it is crucial for crafting enhancing tool quality is an iron pickaxe. crucial for progress. ### Current Experience - This is episoide 1. It is currently 94 steps into the episoide. You are at loaction [43 4]. - Facing Direction: You are facing a iron. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 3, stone: 7, coal: 1, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_stone_pickaxe". Attempted "navigate to a iron". ### Crafting Station

Availability:

Table: placed alerady; Do
 NOT work on place_table

agent_id again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 - For immediate goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 To satisify the prerequiste, you made the following efforts recently towards make_iron_pickaxe: - In step 60: Navigator to iron.. ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 long_term_goal: This is agent 1. In ### Last Experience Summary help_agent Episode: 1; Timestep: 94. This is agent 1. In Episode: 1; My inventory contained Timestep: 73. My inventory current_goal: wood: 1, wood_pickaxe: 1. In the past, I contained wood: 1, collect_stone wood_pickaxe: 1. In the past, I successfully crafted a successfully crafted a wood wood pickaxe; I failed to op: do pickaxe at a table; I failed to collect stone due to collect stone as I didn't navigate to: stone navigational errors. On navigate to the right location. collaboration, I focused On collaboration, I planned to on helping Agent 0 by share: stone assist Agent 0 by collecting collecting and preparing stone and sharing it. target_agent_id: 0 to share stone. I I navigated to a virtual location successfully navigated that would allow me to collect and faced a stone stone because I needed to because I needed to help Agent 0. This action was collect it for Agent 0. in progress, as I needed to This action was in reach and successfully gather progress as I prepared to stone. I planned to work collect the stone. I towards helping my team by planned to work towards sharing resources promptly. helping my team by supporting Agent 0 with ### Current Experience necessary resources. - This is episoide 1. It is currently 94 steps into the episoide. You are at loaction [13 21]. - Facing Direction: You are

context

info

summary

facing a stone.

12/3/24, 10:53 PM

agent_id context info summary - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: ### Past Actions The last 7 actions are: Attempted "navigate to a tree". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Ready* 'collect_stone' - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 73: Navigator to stone.. ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0.

You long-term goal should be help_agent 0. Your current goal should be collect and share stone.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 93. My inventory contained wood: 3, stone: 1, wood_pickaxe: 1. In the past, I successfully collected wood to assist Agent 0; I attempted to share materials with Agent 0 but lacked sufficient resources earlier. On collaboration, I prioritized helping Agent 0 by gathering wood. I shared wood because Agent 0 needed it for crafting the iron_pickaxe. This action succeeded as I had sufficient wood in my inventory. I planned to work towards 'help_agent' because aiding Agent 0 is essential for our collective goal.

Current Experience

- This is episoide 1. It is currently 94 steps into the episoide. You are at loaction [11 17].
- Facing Direction: You are facing a tree.
- Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0 wood_sword:

iron_pickaxe: 0, wood_sword:0, stone_sword: 0, iron_sword:0.

Past Actions
The last 7 actions are:
Attempted "share wood with
agent 0". Attempted "navigate
to a tree". Attempted "do".
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree". Attempted
"share wood with agent 0".

Crafting Station Availability:

 Table: placed alerady; Do NOT work on place_table long_term_goal: help_agent

current_goal: collect_stone

op: Navigator

navigate to: stone

share: not_applicable

target_agent_id: -1

Episode: 1; Timestep: 94. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully gathered wood and shared it with Agent 0; I failed to navigate effectively due to resource constraints. On collaboration, I mainly assisted Agent 0 by providing necessary materials for crafting. I shared wood because it was essential for Agent 0's progression. This action succeeded as it facilitated tool crafting for Agent 0. I planned to work towards 'help_agent' because supporting Agent 0 is crucial for achieving the diamond collection faster. I navigated towards stone to gather more resources for tool advancement and collaboration needs. This action was in progress, aiming to fulfill tool and resource requirements for my team.

This is agent 2. In

again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 93: share wood to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron:

He is focusing on 'make_iron_pickaxe', Missing 1 iron;

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is working on 'collect_stone'
If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else work on advancing your

Else, work on advancing your tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by

agent_id context info summary sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. This is agent 3. In **3** 3 long_term_goal: help_agent ### Last Experience Summary Episode: 1; Timestep: This is agent 3. In Episode: 1; 94. My inventory Timestep: 93. My inventory contained wood (1), current_goal: contained wood (1), stone (1), share stone (2), wood_pickaxe wood_pickaxe (1). In the past, I (1). In the past, I successfully navigated to successfully attempted op: share stone; I failed to collect to collect stone, but enough resources to aid Agent failed to gather navigate to: 0 when needed most. On not_applicable advanced materials. On collaboration, I needed to collaboration, I focus on advancing tools to share: stone prioritized sharing with share resources. I navigated to Agent 0 and tried and collected stone because it target_agent_id: 0 improving tools. I shared was necessary for crafting a stone with Agent 0 stone pickaxe. This action was because they needed in progress, as I aimed to resources to focus on support Agent 0 and Agent 2. I making an iron pickaxe. planned to work towards This action succeeded helping other agents because as a temporary aid while collaboration enhances lacking iron resources. I resource gathering and tool planned to work towards making. helping agents by advancing tools as ### Current Experience needed. - This is episoide 1. It is currently 94 steps into the episoide. You are at loaction [13 22]. - Facing Direction: You are facing a path. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 2, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0,

iron_pickaxe: 0, wood_sword:
0, stone_sword: 0, iron_sword:

agent_id context info summary 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 93: do. . ### Collaboration: Need Your Help!!! Agent 0 is working on 'make_iron_pickaxe', Missing 1 iron; He is focusing on 'make_iron_pickaxe', Missing 1 If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is working on Goal

'share' will work if and only if

	agent_id	context	info	summary
		you have the material in your inventory. Double check! If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help, If they don't need help, you should focus on advancing		
4	4	your tools. in progress	in progress	in progress
5	5	in progress	in progress	in progress
				p. 09. 000
2	27%	95/350 [16:17<43:43,	10.29s/it]	

```
==== total step: 95 current s
tep: 95 ======
Knowledge graph saved to results/agent_2/knowledge graph 1.html
lenath route 5
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 36
Player 0 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.IRON:
'iron'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': everything is
ready, should navigate to furnace; need to place a furnace first, and Missi
ng -4 stone, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:</pre>
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent_1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
### Prerequisites Check:
```

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













> agent_id context 0 0 long_term_goal: ### Last Experience make_iron_pickaxe Summary This is agent 0. In Episode: 1: current goal: Timestep: 94. My inventory make_iron_pickaxe contained wood, stone, coal, wood_pickaxe, and op: Navigator stone_pickaxe. In the past, I successfully navigated to the navigate to: grass iron location, but couldn't collect iron vet. Agent 1 share: not_applicable shared resources with me. I navigated to face iron because I need it to make an target_agent_id: -1 iron pickaxe. My long term goal is to make an iron pickaxe, as it's essential for collecting diamonds. I planned to continue collecting iron, as it is crucial for crafting an iron pickaxe. ### Current Experience - This is episoide 1. It is currently 95 steps into the episoide. You are at loaction [43 4]. - Facing Direction: You are facing a path. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 3, stone: 8, coal: 1, iron: 1, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_stone_pickaxe". Attempted "navigate to a iron". Attempted "do". ### Crafting Station

This is agent 0. In Episode: 1; Timestep: 95. My inventory contained wood, stone, coal, iron, wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to the stone location; I failed to collect iron because a furnace must be placed first. On collaboration, Agent 1 shared resources with me to aid in crafting an iron pickaxe. I navigated to grass to set up the furnace as it is the next step needed to craft the iron pickaxe. This action was in progress as I needed to have all prerequisites ready. I planned to work towards making an iron pickaxe because it is

summary

info

needed to collect diamonds and win the game.

Availability:

again.

- Table: placed alerady; Do NOT work on place_table

agent_id context info summary

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal:
- *Cannot complete*
 'make_iron_pickaxe':
 everything is ready, should
 navigate to furnace; need to
 place a furnace first, and
 Missing -4 stone, and
 navigate to grass to place it;
- For immediate goal: should work on long-term goal now.
- To satisify the prerequiste, you made the following efforts recently towards collect_iron:
- In step 94: do. .

Collaboration: Need Your Help

You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5

1 1

Last Experience Summary

Summary This is agent 1. In Episode: 1; Timestep: 94. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully crafted a wood pickaxe; I failed to collect stone due to navigational errors. On collaboration, I focused on helping Agent 0 by collecting and preparing to share stone. I successfully navigated and faced a stone because I needed to collect it for Agent 0. This action was in progress as I prepared to collect the stone. I planned to work towards helping my team by supporting Agent 0

Current Experience
- This is episoide 1. It is
currently 95 steps into the
episoide. You are at loaction
[13 21].

with necessary resources.

- Facing Direction: You are facing a path.

long_term_goal: help_agent

current_goal: share

op: share

navigate to: not_applicable

share: stone

target_agent_id: 0

This is agent 1. In Episode: 1; Timestep: 95. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated to collect resources; I failed to navigate correctly to a stone until recently. On collaboration, I focused on helping Agent 0 by preparing to share stone. I shared a stone with agent 0 because it is my role to support them in achieving the diamond collection. This action succeeded, ensuring I contributed effectively to my team's goal. I planned to work towards helping Agent 0 achieve the diamond collection because it is our collaborative target.

agent_id context info summary - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone; - To satisify the prerequiste, you made the following efforts recently towards collect_stone: - In step 94: do. . ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy

12/3/24, 10:53 PM

Summary This is agent 3. In Episode: 1; Timestep: 94. My inventory contained wood (1), stone (2), wood_pickaxe (1). In the past, I successfully attempted to collect stone, but failed to gather advanced materials. On collaboration, I prioritized sharing with Agent 0 and tried improving tools. I shared stone with Agent 0 because they needed resources to focus on making an iron pickaxe. This action succeeded as a temporary aid while lacking iron resources. I planned to work towards helping agents by advancing tools as needed. ### Current Experience - This is episoide 1. It is currently 95 steps into the episoide. You are at loaction [13 22] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a		agent_id	context	info	summary
### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 94. My inventory contained wood (1), stone (2), wood_pickaxe (1). In the past, I successfully attempted to collect stone, but failed to gather advanced materials. On collaboration, I prioritized sharing with Agent 0 and tried improving tools. I shared stone with Agent 0 because they needed resources to focus on making an iron pickaxe. This action succeeded as a temporary aid while lacking iron resources. I planned to work towards helping agents by advancing tools as needed. ### Current Experience - This is episoide 1. It is currently 95 steps into the episoide. You are at loaction [13 22] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, iron_pickaxe: 0			goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and		
### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 94. My inventory contained wood (1), stone (2), wood_pickaxe (1). In the past, I successfully attempted to collect stone, but failed to gather advanced materials. On collaboration, I prioritized sharing with Agent 0 and tried improving tools. I shared stone with Agent 0 because they needed resources to focus on making an iron pickaxe. This action succeeded as a temporary aid while lacking iron resources. I planned to work towards helping agents by advancing tools as needed. ### Current Experience - This is episoide 1. It is currently 95 steps into the episoide. You are at loaction [13 22] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood 1, stone 2, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0, iron succeeded "navigate to a help_agent by 5b. My inventory contained wood (1), stone (1), and wood_pickaxe (1). In past, I successfully shared stone with Agent 0 because they needed for crafting. On collaboration, I prioritized sharing resources when not_applicable target_agent_id: -1 prioritized sharing resources when possible. 1 shared target_agent_id: -1 prioritized sharing resources when possible. 1 shared target_agent_id: -1 prioritized sharing resources when possible. 1 shared they needed for crafting. On crafting. On collaboration, I prioritized sharing resources when possible. 1 shared they needed if for crafting. On crafting on crafting. On collaboration, I prioritized sharing resources when not_applicable target_agent_id: -1 forusedpath vood_pickaxe (1). In past, I successfully shared stone with Agent 0 prioritized sharing resources when not_applicable target_agent_id: -1 forusedpath vood_pickaxe (1). In past, I successfully shared s	2	2	in progress	in progress	in progress
"make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a	3	3	Summary This is agent 3. In Episode: 1; Timestep: 94. My inventory contained wood (1), stone (2), wood_pickaxe (1). In the past, I successfully attempted to collect stone, but failed to gather advanced materials. On collaboration, I prioritized sharing with Agent 0 and tried improving tools. I shared stone with Agent 0 because they needed resources to focus on making an iron pickaxe. This action succeeded as a temporary aid while lacking iron resources. I planned to work towards helping agents by advancing tools as needed. ### Current Experience - This is episoide 1. It is currently 95 steps into the episoide. You are at loaction [13 22] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do".	help_agent current_goal: make_stone_pickaxe op: Navigator navigate to: stone share: not_applicable	Episode: 1; Timestep: 95. My inventory contained wood (1), stone (1), and wood_pickaxe (1). In the past, I successfully shared stone with Agent 0; I failed to gather additional advanced materials needed for crafting. On collaboration, I prioritized sharing resources when possible. I shared stone with Agent 0 because they needed it for crafting. This action succeeded as it helped them progress in their tasks. I planned to work towards making a stone pickaxe because no immediate help is required by others. By advancing my own tools, I can provide better support later. I focused on navigating to collect stone as an essential step in crafting more advanced

agent_id context info summary

stone". Attempted "do". Attempted "share stone with agent 0".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 94: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so
by sharing resources/tools as
soon as you gain access to
the required items.
Do not share resources/tools

that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools.

If you are not sure what to do, share stone to agent 0.
Recosider how you can help the previous agent.
!!!Determine your current goal

agent_id	cont	text	info	summary
	based on agents who need help. If they don't need hel you should focus on advancing your tools.			
4 4	in progress	in progress	in progress	
5 5	in progress	in progress	in progress	
27%	96/350 [16:42<4	4:12, 10.44s/it]		

```
=== total step: 96 current s
tep: 96 ======
Knowledge graph saved to results/agent_0/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 4
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 35
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.GRASS: 'grass'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': everything is
ready, should navigate to furnace; need to place a furnace first, and Missi
ng -5 stone, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT_APPICABLE: 'not_applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinationItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move u

p; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.sleep: 'sleep'>, <NavigationDestinationItems. NOT_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action sleep; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	### Last Experience Summary This is agent 1. In Episode: 1; Timestep: 95. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated to collect resources; I failed to navigate correctly to a stone until recently. On collaboration, I focused on helping Agent 0 by preparing to share stone. I shared a stone with agent 0 because it is my role to support them in achieving the diamond collection. This action succeeded, ensuring I contributed effectively to my team's goal. I planned to work towards helping Agent 0 achieve the diamond collection because it is our collaborative target. ### Current Experience - This is episoide 1. It is currently 96 steps into the episoide. You are at loaction [13 21] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_wood_pickaxe". Attempted "do". Attempted "share stone with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: stone share: stone target_agent_id: 0	This is agent 1. In Episode: 1; Timestep: 96. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully shared stone with Agent 0; I failed to collect additional stone for sharing. On collaboration, I focused on supporting Agent 0 by collecting resources. I navigated towards stone because sharing stone is crucial for the team's success in reaching the diamond. This action was in progress. I planned to work towards helping Agent 0 because it aligns with our collaborative goals.

	agent_id	context	info	summary
		'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 95: share stone to target agent ### Collaboration: Need Your Help!!! While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately. ### Collaboration Policy You are agent 1. Your ultimate goal is help_agent 0. You long-term goal should be help_agent 0. Your current goal should be collect and share stone.		
2	2	in progress	in progress	in progress
3	3	in progress	in progress	in progress
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 72. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was sharing the iron pickaxe, but there was a delay. I slept to recover energy while waiting for the iron pickaxe because it's essential for collecting the diamond. This action was planned because energy recovery is necessary while inactive. I planned to work towards collecting the diamond because it fulfills our team goal.	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 96. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I did not receive it yet. I waited to collect the diamond because the iron_pickaxe is essential for this action. This action failed because the tool was not in my inventory. I planned to work towards collecting

agent_id context info summary the diamond because it ### Current Experience was our team goal, but - This is episoide 1. It is currently depended on receiving 96 steps into the episoide. You essential resources from are at loaction [8 19]. another agent. - Facing Direction: You are facing a diamond. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 9. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "sleep". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop.; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your

long-term goal and current goal is to !!collect diamond!! You

agent_id	context	t	info	summary
	should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
28%	97/350 [16:54<44:05,	10.46s/it]		

```
==== total step: 97 current s
tep: 97 ======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 2/knowledge graph 1.html
length route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 34
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.GRASS: 'grass'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': everything is
ready, should navigate to furnace; need to place a furnace first, and Missi
ng -5 stone, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
```

Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_le ft; current status: ActionStatus.IN_PROGRESS

Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent_4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe:
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_iron_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 97. My inventory Timestep: 95. My inventory current goal: contained wood, stone, place_furnace contained wood, stone, coal, coal, iron, iron, wood_pickaxe, and wood_pickaxe, and stone_pickaxe. In the past, I op: noop stone_pickaxe. In the successfully navigated to the past, I successfully stone location; I failed to collect navigated to a grass navigate to: iron because a furnace must be not_applicable location; I failed to placed first. On collaboration, create an iron pickaxe Agent 1 shared resources with share: because I needed to me to aid in crafting an iron not_applicable place a furnace first. pickaxe. I navigated to grass to On collaboration, I was set up the furnace as it is the being supported by target_agent_id: -1 step needed to craft the iron Agent 1 to gather pickaxe. This action was in resources for crafting progress as I needed to have all an iron pickaxe. I was prerequisites ready. I planned to ready to place a work towards making an iron furnace because it is pickaxe because it is needed to necessary for making collect diamonds and win the the iron pickaxe. This game. action was in progress as I lacked enough stone. I planned to ### Current Experience - This is episoide 1. It is work towards making currently 97 steps into the an iron pickaxe because it is needed to episoide. You are at loaction [43] collect diamonds and 6]. - Facing Direction: You are win the game. facing a grass. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 3, stone: 9, coal: 1, iron: 1, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a table". Attempted "make_stone_pickaxe". Attempted "navigate to a iron". Attempted "do". Attempted "navigate to a grass". ### Crafting Station Availability:

Prerequisites Check:

placed.

Table: placed alerady; DoNOT work on place_table again.Furnace: still needs to be

agent_id - For long-term goal: *Cannot complete* 'make_iron_pickaxe': everything is ready, should navigate to furnace; need to place a furnace first, and Missing -5 stone, and navigate to grass to place it; - For immediate goal: should work on long-term goal now. - To satisify the prerequiste, you made the following efforts recently towards make_iron_pickaxe: - In step 95: Navigator to grass.. ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 in progress in progress in progress 2 2 in progress in progress in progress **3** 3 long_term_goal: This is agent 3. In Episode: 1; Timestep: ### Last Experience Summary help_agent This is agent 3. In Episode: 1; 97. My inventory Timestep: 95. My inventory current_goal: contained wood (1), contained wood (1), stone (1), share stone (1), and and wood_pickaxe (1). In the wood_pickaxe (1). In past, I successfully shared stone the past, I successfully op: share with Agent 0; I failed to gather navigated to stone; I additional advanced materials failed to make navigate to: needed for crafting. On not_applicable stone_pickaxe as it collaboration, I prioritized required navigating to sharing resources when share: stone a table. On collaboration, agent 0 possible. I shared stone with Agent 0 because they needed it needed stone. I shared target_agent_id: 0 for crafting. This action stone with agent 0 succeeded as it helped them because they required progress in their tasks. I planned it for crafting. This to work towards making a stone

context

info

summary

Current Experience - This is episoide 1. It is currently 97 steps into the episoide. You are at loaction [13

pickaxe because no immediate help is required by others. By

advancing my own tools, I can

provide better support later. I

stone as an essential step in

crafting more advanced tools.

focused on navigating to collect

action succeeded, as I had stone available. I planned to work towards helping agent 0 and advancing my

own tool crafting when

no immediate help was

needed.

agent_id context info summary 23]. - Facing Direction: You are facing a stone. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "make_wood_pickaxe". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table; - To satisify the prerequiste, you made the following efforts recently towards make_stone_pickaxe: - In step 95: Navigator to stone.. ### Collaboration: Need Your Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate

goal is help_agent 0 and help_agent 2. You should

agent_id	context	info	summary
	prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4 4	in progress	in progress	in progress
5 5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 96. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I did not receive it yet. I waited to collect the diamond because the iron_pickaxe is essential for this action. This action failed because the tool was not in my inventory. I planned to work towards collecting the diamond because it was our team goal, but depended on receiving essential resources from another agent. ### Current Experience - This is episoide 1. It is currently 97 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 6, drink: 5, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron:	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: 4	This is agent 5. In Episode: 1; Timestep: 97. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I did not receive it yet. I waited at the diamond location because the iron_pickaxe is essential for this action. This action was in progress because I needed to receive the tool from another agent. I planned to work towards collecting the diamond because it was our team goal.

agent_id	context	info	summary
	0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.		
	### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "sleep". Attempted "noop".		
	### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: still needs to be placed.		
	### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 63: noop.; in In step 63: noop.; in In step 66: noop.; in In step 66: noop.; in In step 67: noop.; in In step 69: noop.; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep.; in In step 96: noop. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal		
	is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.		
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect		

agent_id	context		info	summary
	the diamond. Other agents will share the tool with you.			
28%	98/350 [17:05<43:56,	10.46s/it]		

```
==== total step: 98 current s
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 33
Player 0 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO
T APPICABLE: 'not applicable'>, <ShareableItems.NOT APPLICABLE: 'not applica
ble'>, −1) with action noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make iron pickaxe': everything is
ready, should navigate to furnace; need to place a furnace first, and Missi
ng -6 stone, and navigate to grass to place it;
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move_down; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.</pre>
NOT_APPICABLE: 'not_applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, 4) wit h action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary

0 0

Last Experience Summary This is agent 0. In Episode: 1; Timestep: 97. My inventory contained wood, stone, coal, iron, wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to a grass location; I failed to create an iron pickaxe because I needed to place a furnace first. On collaboration, I was being supported by Agent 1 to gather resources for crafting an iron pickaxe. I was ready to place a furnace because it is necessary for making the iron pickaxe. This action was in progress as I lacked enough stone. I planned to work towards making an iron pickaxe because it is needed to collect diamonds and win the game.

Current Experience - This is episoide 1. It is currently 98 steps into the episoide. You are at loaction [43 6]. - Facing Direction: You are facing a grass. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 3, stone: 10, coal: 1,

stone_pickaxe: 1, iron_pickaxe: 0, wood_sword: 0,

iron: 1, diamond: 0, wood_pickaxe: 1,

stone_sword: 0, iron_sword: 0.

Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a table". Attempted "make_stone_pickaxe". Attempted "navigate to a iron". Attempted "do". Attempted "navigate to a grass". Attempted "noop".

Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table

long_term_goal: make_iron_pickaxe

current goal: place_furnace

op: place_furnace

navigate to: not_applicable

share: not_applicable

target_agent_id: 5

This is agent 0. In Episode: 1; Timestep: 98. My inventory contained wood, stone, coal, iron. wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to a grass location; I failed to create an iron pickaxe because I needed to place a furnace first. On collaboration, I was being supported by Agent 1 to gather resources for crafting an iron pickaxe. I placed a furnace because it is necessary for making the iron pickaxe. This action was in progress due to previously missing materials. I planned to work towards making an iron pickaxe because it is needed to collect diamonds and win the game. I will share the iron pickaxe with agent 5 once crafted.

agent_id context info summary again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_iron_pickaxe': everything is ready, should navigate to furnace; need to place a furnace first, and Missing -6 stone, and navigate to grass to place it; - For immediate goal: should work on long-term goal now. To satisify the prerequiste, you made the following efforts recently towards place_furnace: - In step 97: noop. . ### Collaboration: Need Your Help You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5 **1** 1 in progress in progress in progress 2 2 in progress in progress in progress **3** 3 This is agent 3. In long_term_goal: ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 3. In Episode: 1; 98. My inventory contained wood (1) and Timestep: 97. My inventory current_goal: contained wood (1), stone (1), make_stone_pickaxe wood_pickaxe (1). In and wood_pickaxe (1). In the the past, I successfully past, I successfully navigated op: Navigator shared stone with to stone; I failed to make agent 0; I failed to stone_pickaxe as it required make a stone_pickaxe navigate to: stone navigating to a table. On due to insufficient collaboration, agent 0 needed share: stone. As agent 0 stone. I shared stone with not_applicable needed stone, I agent 0 because they required provided it it for crafting. This action target_agent_id: -1 successfully. I succeeded, as I had stone navigated to gather available. I planned to work more stone to enhance towards helping agent 0 and my tools since agent 0 advancing my own tool didn't require crafting when no immediate additional assistance. help was needed. This action was in progress to meet

Current Experience

- This is episoide 1. It is

currently 98 steps into the

episoide. You are at loaction

crafting needs. I aimed

to make advancements

current circumstances.

in my tools, given the

agent_id context info summary [13 23]. - Facing Direction: You are facing a stone. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check! - To satisify the prerequiste, you made the following efforts recently towards share: - In step 97: share stone to target agent. . ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and

agent_id	context	info	summary
	help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4 4	in progress	in progress	in progress
5 5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 97. My inventory contained nothing. In the past, I successfully navigated to the diamond; I failed to collect it without an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I did not receive it yet. I waited at the diamond location because the iron_pickaxe is essential for this action. This action was in progress because I needed to receive the tool from another agent. I planned to work towards collecting the diamond because it was our team goal. ### Current Experience - This is episoide 1. It is currently 98 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 6, drink: 5, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron:	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: diamond share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 98. My inventory contained nothing. In the past, I successfully navigated to face the diamond; I failed to collect it as I didn't have an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I have not received it yet. I waited at the diamond location because the iron_pickaxe is essential for this action. This action was in progress because I needed to receive the tool from another agent. I planned to work towards collecting the diamond, as it was our team goal.

agent_id context info summary 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "sleep". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop. ; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop. ; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep.; in In step 96: noop.; in In step 97: noop. . ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your longterm goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with

agent_id	context	i	info	summary
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
28%	99/350 [17:18<43:53, 3	10.49s/it]		

```
==== total step: 99 current s
tep: 99 =======
Knowledge graph saved to results/agent_1/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
lenath route 3
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 32
Player 0 is doing (<ActionType.place_furnace: 'place_furnace'>, <NavigationD
estinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.NOT APPLIC
ABLE: 'not applicable'>, 5) with action place furnace; current status: Actio
nStatus.DONE
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Ready* 'make_iron_pickaxe'
  - For immediate goal: should work on long-term goal now.
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect_stone'
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 2/knowledge graph 1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make stone pickaxe': Missing 1 st
one;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_u
p; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
```

agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;













agent_id context info summary

0 0

Last Experience Summary This is agent 0. In Episode: 1; Timestep: 98. My inventory contained wood, stone, coal, iron, wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to a grass location; I failed to create an iron pickaxe because I needed to place a furnace first. On collaboration, I was being supported by Agent 1 to gather resources for crafting an iron pickaxe. I placed a furnace because it is necessary for making the iron pickaxe. This action was in progress due to previously missing materials. I planned to work towards making an iron pickaxe because it is needed to collect diamonds and win the game. I will share the iron pickaxe with agent 5 once crafted.

Current Experience
- This is episoide 1. It is
currently 99 steps into the
episoide. You are at loaction
[43 6].
- Facing Direction: You are
facing a furnace.
- Current Health Stats: health:
9, food: 6, drink: 5, energy: 6.
- Current Inventory: sapling: 0,
wood: 3, stone: 6, coal: 1, iron:
1, diamond: 0, wood_pickaxe:
1, stone_pickaxe: 1,
iron_pickaxe: 0, wood_sword:
0, stone_sword: 0, iron_sword:

Past Actions
The last 7 actions are:
Attempted "navigate to a table". Attempted
"make_stone_pickaxe".
Attempted "navigate to a iron".
Attempted "do". Attempted
"navigate to a grass".
Attempted "noop". Attempted
"place_furnace".

Crafting Station Availability:

0.

long_term_goal: make_iron_pickaxe

current_goal: make_iron_pickaxe

op: make_iron_pickaxe

navigate to: not_applicable

share: iron_pickaxe

target_agent_id: 5

This is agent 0. In Episode: 1; Timestep: 99. My inventory contained wood, stone, coal, iron, wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to a grass location and attempted to make progress towards crafting tools; I failed to complete actions due to missing prerequisites. On collaboration, I was being supported by Agent 1 to gather resources for crafting an iron pickaxe. I placed a furnace because it is necessary for making the iron pickaxe. This action was in progress due to previously missing materials. I planned to work towards making an iron pickaxe because it is needed to collect diamonds and win the game. Once crafted, I will share the iron pickaxe with agent 5.

agent_id context info summary

- Table: placed alerady; Do NOT work on place_table again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: *Ready*'make_iron_pickaxe'
- For immediate goal: should work on long-term goal now.
- To satisify the prerequiste, you made the following efforts recently towards place_furnace:
- In step 98: place_furnace. .

Collaboration: Need Your Help

You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5

1 1

Last Experience Summary This is agent 1. In Episode: 1; Timestep: 96. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully shared stone with Agent 0; I failed to collect additional stone for sharing. On collaboration, I focused on supporting Agent 0 by collecting resources. I navigated towards stone because sharing stone is crucial for the team's success in reaching the diamond. This action was in progress. I planned to work towards helping Agent 0 because it aligns with our collaborative goals.

Current Experience

- This is episoide 1. It is currently 99 steps into the episoide. You are at loaction [11 21].
- Facing Direction: You are facing a stone.
- Current Health Stats: health: 9, food: 6, drink: 5, energy: 6.
- Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron:

long_term_goal: help_agent

current_goal: collect_stone

op: do

navigate to: stone

share: stone

target_agent_id: 0

This is agent 1. In Episode: 1; Timestep: 99. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources but failed to collect stone adequately. On collaboration, I aimed to support Agent 0 by attempting to collect stone. I navigated to and attempted to collect stone because assisting Agent 0 by providing stone was aligned with our collaborative strategy. This action was in progress due to repeated attempts required for collection. I planned to work towards helping Agent 0 by focusing my efforts on efficiently collecting and sharing stone.

12/3/24, 10:53 PM

agent_id context info summary

0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "do". Attempted
"navigate to a table".
Attempted
"make_wood_pickaxe".
Attempted "navigate to a
stone". Attempted "do".
Attempted "share stone with
agent 0". Attempted "navigate
to a stone".

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again.
- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Ready* 'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 96: Navigator to stone. .

Collaboration: Need Your Help!!!

While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately.

Collaboration Policy
You are agent 1. Your ultimate
goal is help_agent 0.
You long-term goal should be
help_agent 0. Your current

	agent_id	context	info	summary
		goal should be collect and share stone.		
2	2	in progress	in progress	in progress
3	3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 98. My inventory contained wood (1) and wood_pickaxe (1). In the past, I successfully shared stone with agent 0; I failed to make a stone_pickaxe due to insufficient stone. As agent 0 needed stone, I provided it successfully. I navigated to gather more stone to enhance my tools since agent 0 didn't require additional assistance. This action was in progress to meet crafting needs. I aimed to make advancements in my tools, given the current circumstances. ### Current Experience - This is episoide 1. It is currently 99 steps into the episoide. You are at loaction [13 23] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table	long_term_goal: make_stone_pickaxe current_goal: collect_stone op: do navigate to: stone share: not_applicable target_agent_id: -1	This is agent 3. In Episode: 1; Timestep: 99. My inventory contained wood (1) and wood_pickaxe (1). In the past, I successfully shared stone with agent 0; I failed to make a stone_pickaxe due to insufficient stone. On collaboration, I checked the need for help but neither agent 0 nor agent 2 required my immediate assistance. I attempted to collect more stone to improve my toolkit. This action was in progress because collecting stone is crucial for crafting a stone pickaxe. I planned to work towards advancing my tools as no other help was required presently. I need to continue collecting stone for my progress.

agent_id context info summary

again.

- Furnace: still needs to be placed.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal:
- *Cannot complete*
 'make_stone_pickaxe': Missing
 1 stone;
- To satisify the prerequiste, you made the following efforts recently towards make_stone_pickaxe:
- In step 98: Navigator to stone. .

Collaboration: Need Your Help!!! Agent 0 is completing 'make_iron_pickaxe'

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 2 is completing the task.

Collaboration Policy
You are agent 3. Your ultimate
goal is help_agent 0 and
help_agent 2. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as
soon as you gain access to the
required items.

Do not share resources/tools that are not needed by the agents.

Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent.

	agent_id	context	info	summary
		!!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
4	4	in progress	in progress	in progress
5	5	### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 98. My inventory contained nothing. In the past, I successfully navigated to face the diamond; I failed to collect it as I didn't have an iron pickaxe. On collaboration, Agent 4 was supposed to share the iron pickaxe, but I have not received it yet. I waited at the diamond location because the iron_pickaxe is essential for this action. This action was in progress because I needed to receive the tool from another agent. I planned to work towards collecting the diamond, as it was our team goal. ### Current Experience - This is episoide 1. It is currently 99 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a diamond Current Health Stats: health: 9, food: 6, drink: 5, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "noop". Attempted "sleep". Attempted "noop".	long_term_goal: collect_diamond current_goal: collect_diamond op: noop navigate to: not_applicable share: not_applicable target_agent_id: -1	This is agent 5. In Episode: 1; Timestep: 99. My inventory contained nothing. In the past, I successfully navigated to face the diamond; I failed to collect it as I didn't have an iron pickaxe. On collaboration, Agent 4 was working on making an iron pickaxe to share with me. I continued waiting at the diamond location because the iron_pickaxe was essential for this action. This action was in progress because I needed to receive the tool from another agent. I planned to work towards collecting the diamond, as it was our team goal.

info agent_id context summary NOT work on place_table again. - Furnace: still needs to be placed. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop. ; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop. ; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep.; in In step 96: noop.; in In step 97: noop.; in In step 98: noop. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

29% | 100/350 [17:32<43:52, 10.53s/it]

```
==== total step: 100 current
step: 100 =======
Knowledge graph saved to results/agent_2/knowledge graph 1.html
lenath route 2
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
length route 31
Player 0 is doing (<ActionType.make iron pickaxe: 'make iron pickaxe'>, <Nav
igationDestinationItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.IR</pre>
ON PICKAXE: 'iron pickaxe'>, 5) with action make iron pickaxe; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: Iron pickaxe is already made.
  - For immediate goal: Iron pickaxe is already made.
Player 1 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action do; current statu
s: ActionStatus.DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>,
-1) with action move_left; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_2/knowledge graph 1.html
agent_2
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 3 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.STONE:
'stone'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, −1) with action
do; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
  - For immediate goal: should work on long-term goal now.
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
```

- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.NO T_APPICABLE: 'not_applicable'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent_5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
 pickaxe;
- For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_ pickaxe;













agent_id context info summary

0 0

Last Experience Summary This is agent 0. In Episode: 1; Timestep: 99. My inventory contained wood, stone, coal, iron, wood_pickaxe, and stone_pickaxe. In the past, I successfully navigated to a grass location and attempted to make progress towards crafting tools; I failed to complete actions due to missing prerequisites. On collaboration, I was being supported by Agent 1 to gather resources for crafting an iron pickaxe. I placed a furnace because it is necessary for making the iron pickaxe. This action was in progress due to previously missing materials. I planned to work towards making an iron pickaxe because it is needed to collect diamonds and win the game. Once crafted, I will share the iron pickaxe with agent 5.

Current Experience

- This is episoide 1. It is currently 100 steps into the episoide. You are at loaction [43 6].
- Facing Direction: You are facing a furnace.
- Current Health Stats: health: 9, food: 6, drink: 5, energy: 6.
- Current Inventory: sapling: 0, wood: 2, stone: 6, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1, iron_pickaxe: 1, wood_sword: 0, stone_sword:

0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted
"make_stone_pickaxe".
Attempted "navigate to a iron".
Attempted "do". Attempted
"navigate to a grass".
Attempted "noop". Attempted
"place_furnace". Attempted

Crafting Station Availability:

"make_iron_pickaxe".

- Table: placed alerady; Do

long_term_goal: collect_diamond

current_goal: share

op: share

navigate to: not_applicable

share: iron_pickaxe

target_agent_id: 5

This is agent 0. In Episode: 1; Timestep: 100. My inventory contained wood. stone, a wood pickaxe, a stone pickaxe, and an iron pickaxe. In the past, I successfully crafted an iron pickaxe; I failed to navigate to iron due to a lack of proper guidance. On collaboration, I was being helped by Agent 1, and I am ready to share an iron pickaxe with Agent 5. I shared an iron pickaxe with Agent 5 because they needed it to progress towards the diamond. This action succeeded, as I had the necessary resources in my inventory. I planned to work towards collecting a diamond because it is the ultimate goal of the game.

NOT work on place_table again.
- Furnace: placed alerady; Do

NOT work on place_furnace again.

Prerequisites Check:

- For long-term goal: Iron pickaxe is already made.
- For immediate goal: Iron pickaxe is already made.
- To satisify the prerequiste, you made the following efforts recently towards make_iron_pickaxe:
- In step 99: make_iron_pickaxe. .

Collaboration: Need Your Help

You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5

1 1

Last Experience Summary This is agent 1. In Episode: 1; Timestep: 99. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources but failed to collect stone adequately. On collaboration, I aimed to support Agent 0 by attempting to collect stone. I navigated to and attempted to collect stone because assisting Agent 0 by providing stone was aligned with our collaborative strategy. This action was in progress due to repeated attempts required for collection. I planned to work towards helping Agent 0 by focusing my efforts on efficiently collecting and

Current Experience
- This is episoide 1. It is
currently 100 steps into the
episoide. You are at loaction [11
21].

- Facing Direction: You are facing a path.

sharing stone.

- Current Health Stats: health:

long_term_goal: help_agent

current_goal: collect_stone

op: share

navigate to: not_applicable

share: stone

target_agent_id: 0

This is agent 1. In Episode: 1; Timestep: 100. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources but could not gather stone quickly. I failed to expedite stone collection. On collaboration, I focused on aiding Agent 0 by attempting to supply stone. I collected a stone and shared it with Agent 0 because our overall goal was to assist them in completing tool crafting. This action was successful as I navigated and shared effectively. I planned to work towards helping Agent 0 because it's key to our collaborative diamond objective.

9, food: 6, drink: 5, energy: 6.
- Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to a table".
Attempted
"make_wood_pickaxe".
Attempted "navigate to a
stone". Attempted "do".
Attempted "share stone with
agent 0". Attempted "navigate
to a stone". Attempted "do".

Crafting Station Availability:

Table: placed alerady; Do
NOT work on place_table again.
Furnace: placed alerady; Do
NOT work on place_furnace again.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 99: do. .

Collaboration: Need Your Help!!!

While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately.

Collaboration Policy
You are agent 1. Your ultimate
goal is help_agent 0.
You long-term goal should be
help_agent 0. Your current goal

	agent_id	context	info	summary
		should be collect and share stone.		
2	2	in progress	in progress	in progress
3	3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 99. My inventory contained wood (1) and wood_pickaxe (1). In the past, I successfully shared stone with agent 0; I failed to make a stone_pickaxe due to insufficient stone. On collaboration, I checked the need for help but neither agent 0 nor agent 2 required my immediate assistance. I attempted to collect more stone to improve my toolkit. This action was in progress because collecting stone is crucial for crafting a stone pickaxe. I planned to work towards advancing my tools as no other help was required presently. I need to continue collecting stone for my progress. ### Current Experience - This is episoide 1. It is currently 100 steps into the episoide. You are at loaction [13 23] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a stone". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "do". Attempted "do".	long_term_goal: help_agent current_goal: make_stone_pickaxe op: Navigator navigate to: not_applicable share: stone target_agent_id: 0	This is agent 3. In Episode: 1; Timestep: 100. My inventory contained wood (1) and wood_pickaxe (1). Previously, I collected stone to make a stone pickaxe, but was unsuccessful due to needing to navigate to the table. On collaboration, I intended to assist agent 0. I navigated towards the table and planned to make a stone pickaxe to advance my tools and provide support if needed. This action was in progress as aligning with my long- term goal to help agents by upgrading my toolkit.

agent_id context info summary Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: placed alerady; Do NOT work on place_furnace again. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table; - For immediate goal: should work on long-term goal now. To satisfy the prerequiste, you made the following efforts recently towards collect_stone: - In step 99: do. . ### Collaboration: Need Your Help!!! Agent 0 is completing its task. You should focus on advancing your tools. Agent 2 is completing the task. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. 4 in progress in progress in progress long_term_goal: This is agent 5. In Episode: 1; Timestep: ### Last Experience Summary collect_diamond This is agent 5. In Episode: 1; 100. My inventory

agent_id context info summary Timestep: 99. My inventory current_goal: contained nothing. In contained nothing. In the past, I collect_diamond the past, I successfully navigated to face successfully the diamond; I failed to collect it op: noop navigated to the as I didn't have an iron pickaxe. diamond; I failed to On collaboration, Agent 4 was collect it due to not navigate to: diamond working on making an iron having an iron pickaxe to share with me. I pickaxe. On share: continued waiting at the not_applicable collaboration, Agent 4 diamond location because the was tasked with iron pickaxe was essential for target_agent_id: -1 creating and sharing this action. This action was in the iron pickaxe I progress because I needed to needed. I chose to receive the tool from another noop because I was agent. I planned to work waiting for another towards collecting the diamond, agent to share the as it was our team goal. necessary tool. This action was failure ### Current Experience since I am unable to collect the diamond - This is episoide 1. It is currently 100 steps into the without an iron episoide. You are at loaction [8 pickaxe. I planned to 19]. work towards - Facing Direction: You are collecting the facing a diamond. diamond because it - Current Health Stats: health: would achieve the 9, food: 6, drink: 5, energy: 9. team's goal. - Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "noop". Attempted "noop". Attempted "sleep". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: placed alerady; Do NOT work on place_furnace again. ### Prerequisites Check: - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - For immediate goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe; - To satisify the prerequiste,

agent_id info context summary you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop.; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep.; in In step 96: noop.; in In step 97: noop.; in In step 98: noop.; in In step 99: noop.. ### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you. ### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.

| 101/350 [17:53<44:06, 10.63s/it]

```
=== total step: 101 current
Knowledge graph saved to results/agent_2/knowledge graph 1.html
lenath route 1
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
Knowledge graph saved to results/agent 4/knowledge graph 1.html
Player 0 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT APPICABLE: 'not applicable'>, <ShareableItems.IRON PICKAXE: 'iron pickax
e'>, 5) with action noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_0/knowledge_graph_1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_
pickaxe;
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 1 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.
NOT_APPICABLE: 'not_applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'collect_stone': everything is rea
dy, should navigate to stone;
Player 2 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>,
-1) with action move down; current status: ActionStatus.ALMOST DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect stone'
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>,
0) with action noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_3/knowledge_graph_1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make stone pickaxe': everything i
s ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move_le
ft; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 4/knowledge graph 1.html
### Prerequisites Check:
```

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.

- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
ckaxe;

Player 5 is doing (<ActionType.noop: 'noop'>, <NavigationDestinationItems.DI AMOND: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) wi th action noop; current status: ActionStatus.DONE Knowledge graph saved to results/agent_5/knowledge_graph_1.html agent 5

Prerequisites Check:

- For long-term goal: *Ready* 'collect_diamond'
- For immediate goal: should work on long-term goal now.













agent_id context info summary 0 0 long_term_goal: This is agent 0. In ### Last Experience Summary make_iron_pickaxe Episode: 1; Timestep: This is agent 0. In Episode: 1; 101. My inventory Timestep: 100. My inventory current goal: contained wood. contained wood, stone, a wood stone, a wood pickaxe, collect_iron pickaxe, a stone pickaxe, and and a stone pickaxe. an iron pickaxe. In the past, I op: Navigator In the past, I successfully shared an successfully crafted an iron pickaxe; I failed to navigate to iron pickaxe with navigate to: iron iron due to a lack of proper Agent 5; I failed to quidance. On collaboration, I share: collect iron due to not_applicable was being helped by Agent 1, unsuccessful and I am ready to share an iron navigation attempts. pickaxe with Agent 5. I shared target_agent_id: -1 On collaboration, I was an iron pickaxe with Agent 5 being helped by Agent 1 to receive required because they needed it to progress towards the diamond. resources. I shared an This action succeeded, as I had iron pickaxe with the necessary resources in my Agent 5 because it inventory. I planned to work was essential for their towards collecting a diamond progress towards because it is the ultimate goal diamond collection. This action succeeded of the game. as I had the necessary ### Current Experience resources previously. I - This is episoide 1. It is planned to work currently 101 steps into the towards making an iron pickaxe because episoide. You are at loaction [43 6]. it is needed to collect - Facing Direction: You are diamonds. My next facing a furnace. step was navigating to - Current Health Stats: health: iron, but I faced a 9, food: 6, drink: 5, energy: 6. furnace, blocking - Current Inventory: sapling: 0, progress. wood: 2, stone: 7, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 1, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "navigate to a iron". Attempted "do". Attempted "navigate to a grass". Attempted "noop". Attempted "place_furnace". Attempted "make_iron_pickaxe". Attempted "share iron_pickaxe

with agent 5".

Availability:

Crafting Station

Table: placed alerady; DoNOT work on place_table again.Furnace: placed alerady; DoNOT work on place_furnace

again.

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': Missing 1 iron_pickaxe;
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
- To satisify the prerequiste, you made the following efforts recently towards share:
- In step 100: share iron_pickaxe to target agent. .

Collaboration: Need Your Help

You are agent 0. Focus on your tasks while other agents share resources with you. Once you craft an iron_pickaxe, you should share it to agent 5

1 1

Last Experience Summary This is agent 1. In Episode: 1; Timestep: 100. My inventory contained wood: 1, stone: 1, wood_pickaxe: 1. In the past, I successfully navigated towards resources but could not gather stone quickly. I failed to expedite stone collection. On collaboration, I focused on aiding Agent 0 by attempting to supply stone. I collected a stone and shared it with Agent 0 because our overall goal was to assist them in completing tool crafting. This action was successful as I navigated and shared effectively. I planned to work towards helping Agent 0 because it's key to our collaborative diamond objective.

Current Experience

- This is episoide 1. It is currently 101 steps into the episoide. You are at loaction [11 21].
- Facing Direction: You are facing a path.
- Current Health Stats: health:9, food: 6, drink: 5, energy: 6.Current Inventory: sapling: 0,

long_term_goal: help_agent

current_goal: collect_stone

op: Navigator

navigate to: stone

share: stone

target_agent_id: 0

This is agent 1. In Episode: 1; Timestep: 101. My inventory contained wood: 1, wood_pickaxe: 1. In the past, I successfully navigated to stones but failed to collect and share stone with agent 0. On collaboration, I focused on aiding Agent 0, but could not collect stones for them. I navigated towards a stone because Agent 0 needed it to progress. This action was in progress as I needed to collect the material. I planned to work towards helping Agent 0 because it's key to our collaborative diamond objective.

wood: 1, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe:

0, wood_sword: 0,

stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted
"make_wood_pickaxe".
Attempted "navigate to a
stone". Attempted "do".
Attempted "share stone with
agent 0". Attempted "navigate
to a stone". Attempted "do".
Attempted "share stone with
agent 0".

Crafting Station Availability:

again.

- Table: placed alerady; DoNOT work on place_table again.Furnace: placed alerady; DoNOT work on place_furnace
- ### Prerequisites Check:
- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_stone': everything is ready, should navigate to stone;
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 100: share stone to target agent. .

Collaboration: Need Your Help!!!

While other agents working towards make_iron_pickaxe, your long-term goal and current goal should be !!share stone to agent 0!! You should focus on !!collect stone!! and share stone immediately.

Collaboration Policy
You are agent 1. Your ultimate
goal is help_agent 0.
You long-term goal should be
help_agent 0. Your current goal

agent_id context info summary
should be collect and share stone.

2 2

Last Experience Summary This is agent 2. In Episode: 1; Timestep: 94. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully gathered wood and shared it with Agent 0; I failed to navigate effectively due to resource constraints. On collaboration, I mainly assisted Agent 0 by providing necessary materials for crafting. I shared wood because it was essential for Agent 0's progression. This action succeeded as it facilitated tool crafting for Agent 0. I planned to work towards 'help_agent' because supporting Agent 0 is crucial for achieving the diamond collection faster. I navigated towards stone to gather more resources for tool advancement and collaboration needs. This action was in progress, aiming to fulfill tool and resource requirements for my team.

Current Experience

- This is episoide 1. It is currently 101 steps into the episoide. You are at loaction [9 20].
- Facing Direction: You are facing a stone.
- Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. Current Inventory: sapling: 0, wood: 2, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0,

o, wood_sword: o, stone_sword: 0, iron_sword: 0.

Past Actions
The last 7 actions are:
Attempted "navigate to a tree".
Attempted "do". Attempted
"navigate to a tree". Attempted
"do". Attempted "navigate to a
tree". Attempted "share wood
with agent 0". Attempted
"navigate to a stone".

long_term_goal: help_agent

current_goal: share

op: share

navigate to: not_applicable

share: stone

target_agent_id: 0

This is agent 2. In Episode: 1; Timestep: 101. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully engaged in resource sharing and navigation efforts to assist Agent 0. On collaboration, I prioritized aiding Agent 0 in crafting efforts. I shared stone because Agent 0 required resources for tool advancement to collect diamond. This action succeeded as it aligned with the immediate needs of Agent 0. I planned to work towards 'help_agent' because Agent 0's progress is crucial for diamond collection.

Crafting Station Availability:

- Table: placed alerady; Do NOT work on place_table again. - Furnace: placed alerady: Do

- Furnace: placed alerady; Do NOT work on place_furnace again.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: *Ready*'collect_stone'
- To satisify the prerequiste, you made the following efforts recently towards collect_stone:
- In step 94: Navigator to stone. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'collect_diamond', Missing 1 iron_pickaxe;

He is focusing on Goal 'share' will work if and only if you have the material in your inventory. Double check!

If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 1 is completing the task.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should
prioritize helping agent 0.
You long-term goal should be
'help_agent'. You can do so by
sharing resources/tools as soon
as you gain access to the
required items.
Do not share resources/tools
that are not needed by the
agents.
Try to help the agents of they

Try to help the agents. If they don't need help, you should

	agent_id	context	info	summary
		focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools.		
3	3	### Last Experience Summary This is agent 3. In Episode: 1; Timestep: 100. My inventory contained wood (1) and wood_pickaxe (1). Previously, I collected stone to make a stone pickaxe, but was unsuccessful due to needing to navigate to the table. On collaboration, I intended to assist agent 0. I navigated towards the table and planned to make a stone pickaxe to advance my tools and provide support if needed. This action was in progress as aligning with my long-term goal to help agents by upgrading my toolkit. ### Current Experience - This is episoide 1. It is currently 101 steps into the episoide. You are at loaction [13 23] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 1, stone: 1, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a not_applicable".	long_term_goal: make_stone_pickaxe current_goal: make_stone_pickaxe op: Navigator navigate to: stone share: stone_pickaxe target_agent_id: 0	This is agent 3. In Episode: 1; Timestep: 101. My inventory contained wood (1), stone (1), and wood_pickaxe (1). In the past, I successfully navigated around resources; I failed to share stone effectively because I wasn't near the table to craft. On collaboration, I wanted to assist agent 0 by providing a stone pickaxe. I navigated towards the table to craft a stone pickaxe because agent 0 needed one and it aligns with my goal to enhance tools. This action was in progress, as I needed to reach the table. I planned to work towards helping agents because it aligned with the team's success strategy.

six_agent_mem_comm agent_id context info summary ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: placed alerady; Do NOT work on place_furnace again. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table; To satisfy the prerequiste, you made the following efforts recently towards make_stone_pickaxe:

> ### Collaboration: Need Your Help!!!

- In step 100: Navigator to

not_applicable. .

Agent 0 is working on 'collect_diamond', Missing 1 iron_pickaxe;

He is focusing on Goal 'share' will work if and only if you have the material in your inventory. Double check! If he needs any tool, work on

the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.

Else, work on advancing your tools.

Agent 2 is working on 'collect_stone' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your

tools.

agent_id

Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. 4 in progress in progress in progress This is agent 5. In **5** 5 long_term_goal: ### Last Experience Summary collect_diamond Episode: 1; Timestep: This is agent 5. In Episode: 1; 101. My inventory Timestep: 100. My inventory current_goal: contained an iron contained nothing. In the past, I collect_diamond pickaxe. In the past, I successfully navigated to the successfully received diamond; I failed to collect it the needed iron op: do due to not having an iron pickaxe from Agent 4. pickaxe. On collaboration, navigate to: diamond On collaboration, I was Agent 4 was tasked with waiting for the iron creating and sharing the iron pickaxe to be shared. I share: pickaxe I needed. I chose to not_applicable navigated to a noop because I was waiting for diamond and collected another agent to share the target_agent_id: -1 it because I had finally necessary tool. This action was received the failure since I am unable to necessary tool. This collect the diamond without an action succeeded iron pickaxe. I planned to work because the towards collecting the diamond prerequisites were because it would achieve the met. I planned to work team's goal. towards collecting the diamond because it would meet our ### Current Experience - This is episoide 1. It is team's ultimate goal. currently 101 steps into the episoide. You are at loaction [8 19]. - Facing Direction: You are facing a diamond.

context

info

summary

- Current Health Stats: health:

agent_id	context	ir	nfo	summary
	9, food: 6, drink: 5, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 1, wood_sword: 0, stone_sword: 0, iron_sword: 0.			
	### Past Actions The last 7 actions are: Attempted "noop". Attempted "sleep". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop". Attempted "noop".			
	### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again Furnace: placed alerady; Do NOT work on place_furnace again.			
	### Prerequisites Check: - For long-term goal: *Ready* 'collect_diamond' - For immediate goal: should work on long-term goal now To satisify the prerequiste, you made the following efforts recently towards collect_diamond: - In step 59: noop.; in In step 60: noop.; in In step 61: noop.; in In step 62: noop.; in In step 63: noop.; in In step 64: noop.; in In step 65: noop.; in In step 66: noop.; in In step 67: noop.; in In step 68: noop.; in In step 69: noop.; in In step 70: noop.; in In step 71: noop.; in In step 72: sleep.; in In step 96: noop. ; in In step 97: noop.; in In step 98: noop.; in In step 99: noop.; in In step 100: noop.			
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			

agent_id	context	info	summary
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.		
29%	102/350 [18:03<43:54, 10.6	2s/it]	

```
==== total step: 102 current
step: 102 ======
Knowledge graph saved to results/agent 0/knowledge graph 1.html
length route 33
Knowledge graph saved to results/agent_1/knowledge_graph_1.html
length route 2
Knowledge graph saved to results/agent 3/knowledge graph 1.html
length route 1
Knowledge graph saved to results/agent 4/knowledge graph 1.html
length route 29
!!Done!!
Player 0 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.NOT APPLICABLE: 'not applicable'>, -
1) with action move left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 0/knowledge graph 1.html
agent 0
### Prerequisites Check:
  - For long-term goal: *Cannot complete* 'make_iron_pickaxe': Missing 1 iro
n: Missing 1 coal:
  - For immediate goal: *Cannot complete* 'collect_iron': everything is read
y, should navigate to iron;
Player 1 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE: 'stone'>, 0) with action mov
e left; current status: ActionStatus.IN PROGRESS
Knowledge graph saved to results/agent 1/knowledge graph 1.html
agent 1
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Ready* 'collect stone'
Player 2 is doing (<ActionType.share: 'share'>, <NavigationDestinationItems.</pre>
NOT APPICABLE: 'not applicable'>, <ShareableItems.STONE: 'stone'>, 0) with a
ction noop; current status: ActionStatus.DONE
Knowledge graph saved to results/agent_2/knowledge_graph_1.html
agent 2
### Prerequisites Check:
  - For long-term goal: Goal 'help_agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: Goal 'share' will work if and only if you have the m
aterial in your inventory. Double check!
Player 3 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.STONE: 'stone'>, <ShareableItems.STONE PICKAXE: 'stone pickaxe'>, 0)
with action move_left; current status: ActionStatus.ALMOST_DONE
Knowledge graph saved to results/agent 3/knowledge graph 1.html
agent 3
### Prerequisites Check:
  - For long-term goal: Goal 'help agent' requires you to help the agent imm
ediately if you do have the material in your inventory.
  - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything i
s ready, should navigate to table;
Player 4 is doing (<ActionType.Navigator: 'Navigator'>, <NavigationDestinati
onItems.IRON: 'iron'>, <ShareableItems.IRON: 'iron'>, 0) with action move le
```

ft; current status: ActionStatus.IN_PROGRESS
Knowledge graph saved to results/agent_4/knowledge_graph_1.html
agent 4

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent imm ediately if you do have the material in your inventory.
- For immediate goal: *Cannot complete* 'collect_iron': Missing 1 stone_pi
 ckaxe;

Player 5 is doing (<ActionType.do: 'do'>, <NavigationDestinationItems.DIAMON D: 'diamond'>, <ShareableItems.NOT_APPLICABLE: 'not_applicable'>, -1) with a ction do; current status: ActionStatus.DONE

Knowledge graph saved to results/agent_5/knowledge_graph_1.html
agent 5

Prerequisites Check:

- For long-term goal: *Cannot complete* 'collect_diamond': everything is r
 eady, should navigate to diamond;
 - For immediate goal: should work on long-term goal now.













	agent_id	context	info	summary
0	0	in progress	in progress	in progress
1	1	in progress	in progress	in progress
2	2	### Last Experience Summary This is agent 2. In Episode: 1; Timestep: 101. My inventory contained wood: 2, stone: 1, wood_pickaxe: 1. In the past, I successfully engaged in resource sharing and navigation efforts to assist Agent 0. On collaboration, I prioritized aiding Agent 0 in crafting efforts. I shared stone because Agent 0 required resources for tool advancement to collect diamond. This action succeeded as it aligned with the immediate needs of Agent 0. I planned to work towards 'help_agent' because Agent 0's progress is crucial for diamond collection. ### Current Experience - This is episoide 1. It is currently 102 steps into the episoide. You are at loaction [9 20] Facing Direction: You are facing a stone Current Health Stats: health: 9, food: 6, drink: 5, energy: 6 Current Inventory: sapling: 0, wood: 2, stone: 0, coal: 0, iron: 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "do". Attempted "navigate to a tree". Attempted "share wood with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". ### Crafting Station Availability: - Table: placed alerady; Do	long_term_goal: help_agent current_goal: collect_stone op: Navigator navigate to: coal share: not_applicable target_agent_id: -1	This is agent 2. In Episode: 1; Timestep: 102. My inventory contained wood: 2, wood_pickaxe: 1. In the past, I successfully shared resources (stone and wood) to aid Agent 0. On collaboration, I focused on supporting Agent 0 in their collection of diamond by sharing essential items like stone. I navigated towards resources such as stone and coal because advancing my tools is crucial to help in crafting an iron pickaxe needed by Agent 0. This action was in progress as I needed coal and iron. I planned to work towards 'help_agent' because our team relies on getting one diamond to win.

NOT work on place_table again.

- Furnace: placed alerady; Do NOT work on place_furnace again.

Prerequisites Check:

- For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory.
- For immediate goal: Goal 'share' will work if and only if you have the material in your inventory. Double check!
 To satisify the prerequiste, you made the following efforts recently towards share:
- In step 101: share stone to target agent. .

Collaboration: Need Your Help!!!

Agent 0 is working on 'collect_diamond', Missing 1 iron_pickaxe;

He is focusing on Goal 'share' will work if and only if you have the material in your inventory. Double check!
If he needs any tool, work on the tool and share with him.
If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you.
Else, work on advancing your tools.

Agent 1 is working on 'collect_stone' If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools.

Collaboration Policy
You are agent 2. Your ultimate
goal is help_agent 0 and
help_agent 1. You should

agent_id context info summary prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on advancing your tools. **3** 3 long_term_goal: This is agent 3. In ### Last Experience Summary help_agent Episode: 1; Timestep: This is agent 3. In Episode: 1; 102. My inventory Timestep: 101. My inventory contained wood (1), current_goal: contained wood (1), stone (1), make_stone_pickaxe stone (1), and and wood_pickaxe (1). In the wood_pickaxe (1). In past, I successfully navigated op: Navigator the past, I successfully around resources; I failed to navigated resources; I share stone effectively navigate to: failed in sharing with because I wasn't near the not_applicable agent 0 due to crafting station access issues. table to craft. On collaboration, I wanted to share: stone_pickaxe On collaboration, I assist agent 0 by providing a focused on assisting stone pickaxe. target_agent_id: 0 agent 0 by crafting a I navigated towards the table tool needed. to craft a stone pickaxe I navigated to a table to because agent 0 needed one make a stone pickaxe and it aligns with my goal to because agent 0 enhance tools. This action was requires it to collect a in progress, as I needed to diamond. This action reach the table. I planned to was in progress, but I work towards helping agents faced navigation because it aligned with the challenges. I planned to team's success strategy. continue working towards helping agent ### Current Experience 0 because aiding the team's diamond - This is episoide 1. It is currently 102 steps into the acquisition is crucial. episoide. You are at loaction [13 23]. - Facing Direction: You are facing a stone. - Current Health Stats: health: 9, food: 6, drink: 5, energy: 6. - Current Inventory: sapling: 0,

wood: 1, stone: 1, coal: 0, iron:

agent_id context info summary 0, diamond: 0, wood_pickaxe: 1, stone_pickaxe: 0, iron_pickaxe: 0, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "share stone with agent 0". Attempted "navigate to a stone". Attempted "do". Attempted "navigate to a not_applicable". Attempted "navigate to a stone". ### Crafting Station Availability: - Table: placed alerady; Do NOT work on place_table again. - Furnace: placed alerady; Do NOT work on place_furnace again. ### Prerequisites Check: - For long-term goal: Goal 'help_agent' requires you to help the agent immediately if you do have the material in your inventory. - For immediate goal: *Cannot complete* 'make_stone_pickaxe': everything is ready, should navigate to table; - To satisify the prerequiste, you made the following efforts recently towards make_stone_pickaxe: - In step 100: Navigator to not_applicable.; in In step 101: Navigator to stone. . ### Collaboration: Need Your Help!!! Agent 0 is working on 'collect_diamond', Missing 1 iron_pickaxe; He is focusing on Goal 'share' will work if and only if you have the material in your inventory. Double check! If he needs any tool, work on the tool and share with him. If he needs anything else

age	nt_id	context	info	summary
		besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. Agent 2 is working on Goal 'share' will work if and only if you have the material in your inventory. Double check! If he needs any tool, work on the tool and share with him. If he needs anything else besides what he is working on, you should navigate to the other material and ask the next agent to share the appropriate tool with you. Else, work on advancing your tools. ### Collaboration Policy You are agent 3. Your ultimate goal is help_agent 0 and help_agent 2. You should prioritize helping agent 0. You long-term goal should be 'help_agent'. You can do so by sharing resources/tools as soon as you gain access to the required items. Do not share resources/tools that are not needed by the agents. Try to help the agents. If they don't need help, you should focus on advancing your tools. If you are not sure what to do, share stone to agent 0. Recosider how you can help the previous agent. !!!Determine your current goal based on agents who need help. If they don't need help, you should focus on		
4 4		advancing your tools. in progress	in progress	in progress
5 5			long_term_goal:	This is agent 5. In
0		### Last Experience Summary This is agent 5. In Episode: 1; Timestep: 101. My inventory contained an iron pickaxe. In	collect_diamond current_goal: collect_diamond	Episode: 1; Timestep: 102. My inventory contained an iron pickaxe and a diamond.

the past, I successfully

received the needed iron

pickaxe from Agent 4. On

In the past, I

successfully navigated to a diamond with the

op: Navigator

agent_id	context	info	summary
agent_id	collaboration, I was waiting for the iron pickaxe to be shared. I navigated to a diamond and collected it because I had finally received the necessary tool. This action succeeded because the prerequisites were met. I planned to work towards collecting the diamond because it would meet our team's ultimate goal. ### Current Experience - This is episoide 1. It is currently 102 steps into the episoide. You are at loaction [8 19] Facing Direction: You are facing a path Current Health Stats: health: 9, food: 6, drink: 5, energy: 9 Current Inventory: sapling: 0, wood: 0, stone: 0, coal: 0, iron: 0, diamond: 1, wood_pickaxe: 0, stone_pickaxe: 0, iron_pickaxe: 1, wood_sword: 0, stone_sword: 0, iron_sword: 0. ### Past Actions The last 7 actions are: Attempted "sleep". Attempted "noop". Attempted "operate goal: "Cannot complete" to long-term goal: "Cannot complete" collect_diamond': everything is ready, should navigate to diamond; - For immediate goal: should work on long-term goal now To satisify the prerequiste, you made the following efforts recently towards collect_diamond:	navigate to: diamond share: not_applicable target_agent_id: -1	help of Agent 4. On collaboration, Agent 4 assisted me by sharing an iron pickaxe, enabling me to collect the diamond. I navigated to a diamond because it was the final step of our team's goal. This action succeeded because I had the necessary tool. I planned to work towards collecting the diamond because it would meet our team's ultimate goal.

agent_id	context	in	fo s	summary
	- In step 101: do			
	### Collaboration: Need Your Help!!! While other agents are working on make_iron_pickaxe, your long-term goal and current goal is to !!collect diamond!! You should navigate to a diamond, and collect the diamond. Other agent will share the tool with you.			
	### Collaboration Policy You are agent 5. Your goal is to collect diamond. You should navigate to a dimond and collect the diamond. Other agents will share the tool with you.			
29%	103/350 [18:22<44:04,	10.71s/it]		