LeHome: A Simulation Environment for Deformable Object Manipulation in Household Scenarios

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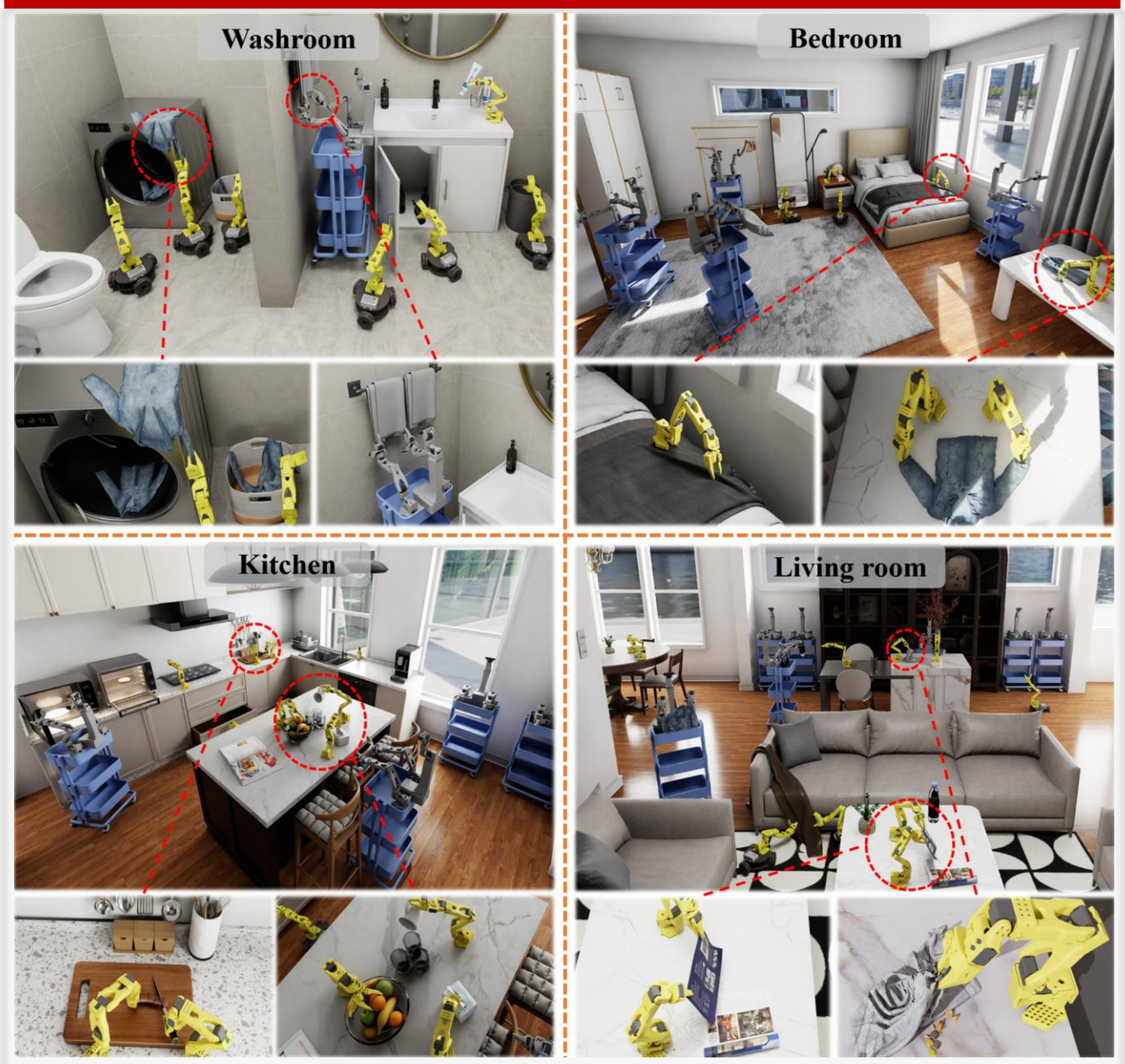
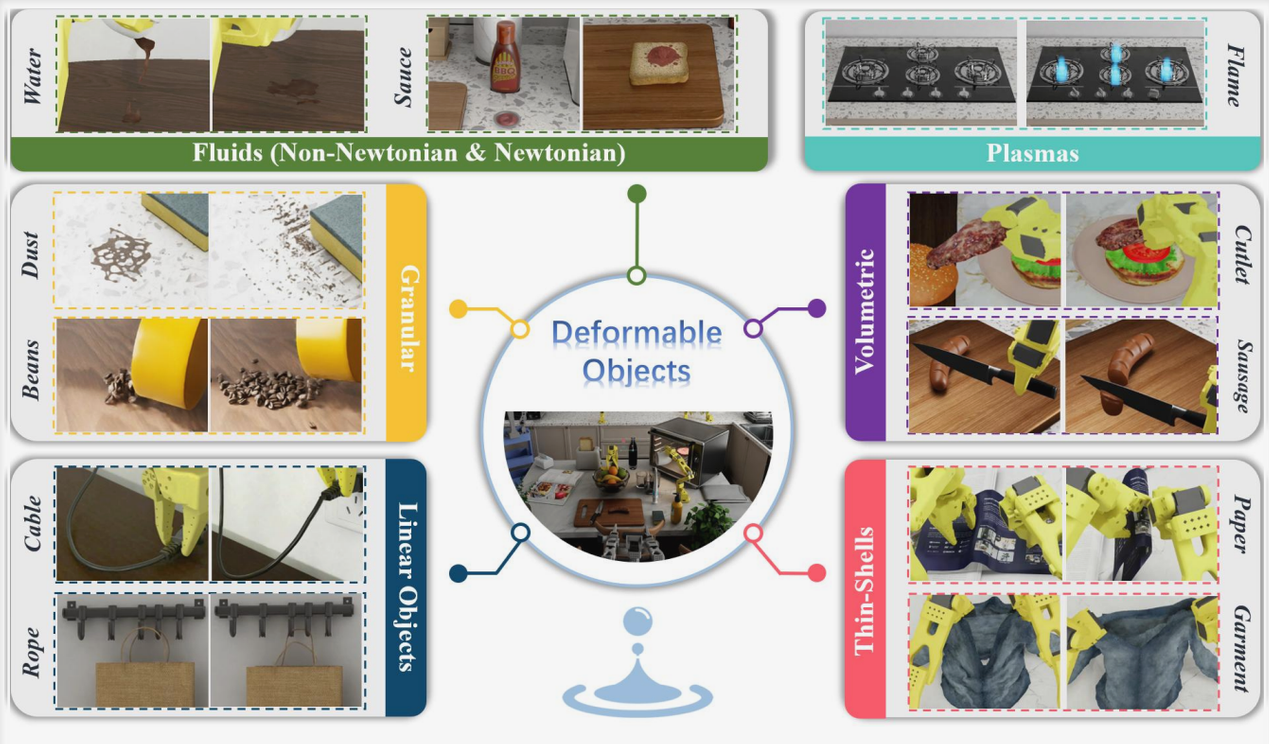
1. LeHome Environment



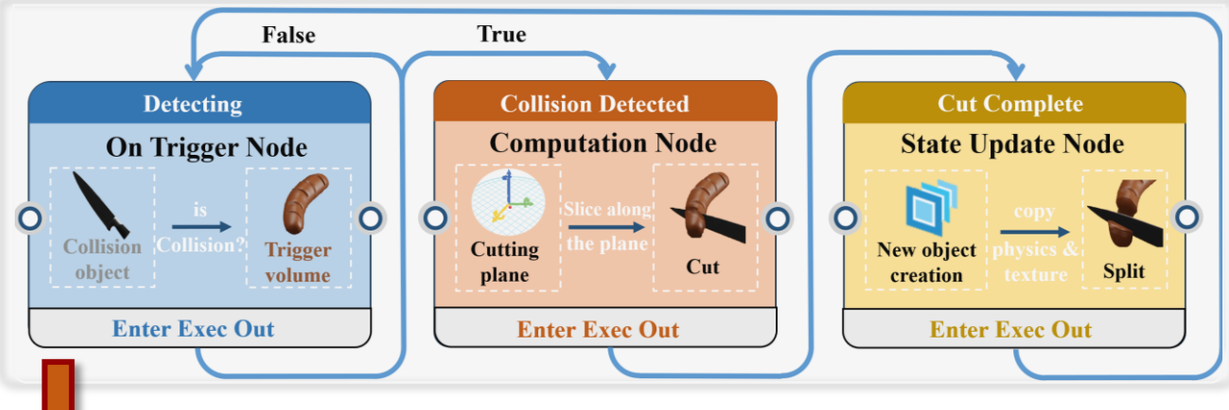
- Simulate diverse **deformable objects** covering household scenarios
- A home of **low-cost robots** can conduct various household tasks
- Fully capable of supporting **real-world robot policy** learning, including methods such as VLA and imitation learning.

2. LeHome Assets

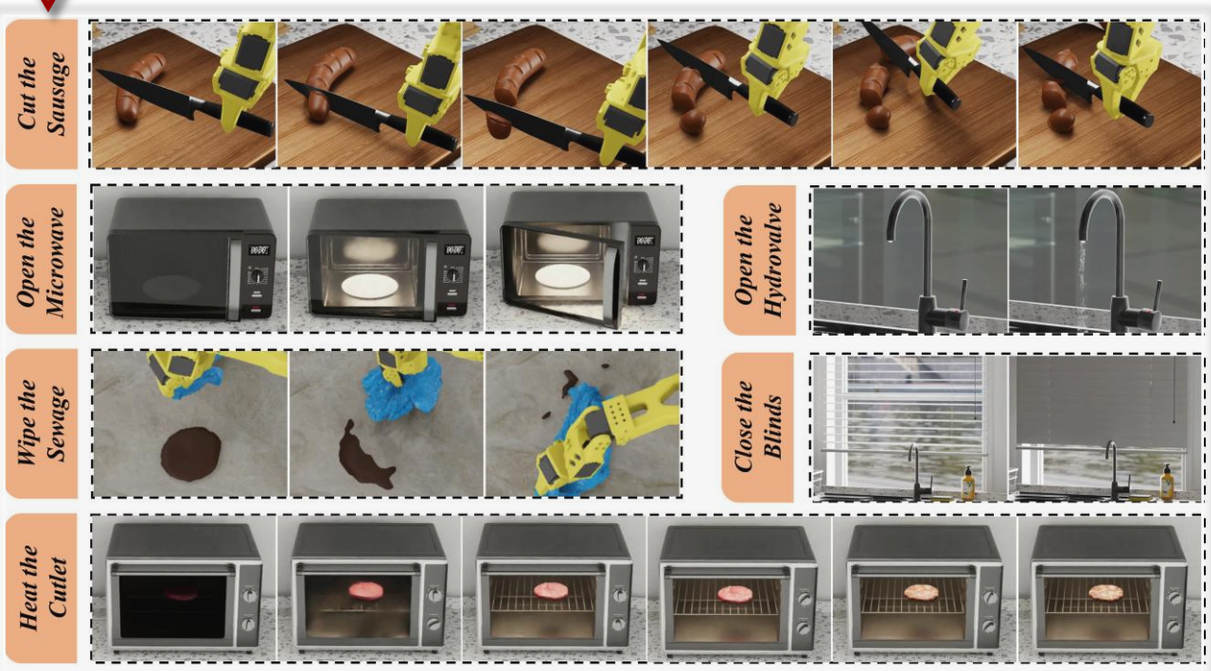


- Position-Based Dynamics (PBD) for large thin-shells (e.g., ,), fluids (e.g., ,), and linear objects (e.g., ,)
- Finite Element Method (FEM) for small-scale thin-shells (e.g., ,), and volumetric objects (e.g., ,)
- Dynamic Grids (DG) for granular objects (e.g.,), and plasmas (e.g.,)

3. Action Graph for Mechanism Simulation

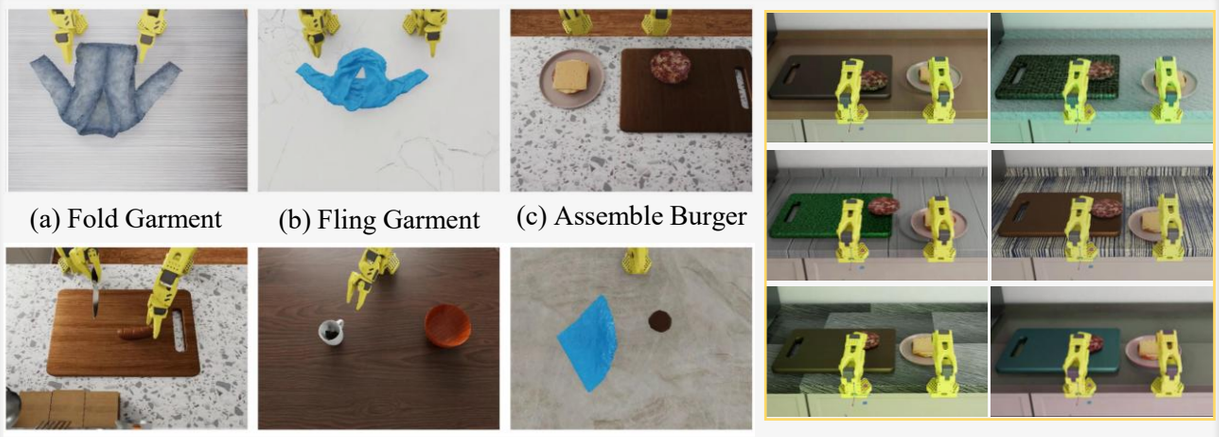


4. Mechanism Simulation



5. Teleoperation

6. Diverse Tasks & Domain Randomization



7. Sim2Real Support