

Study Tasks & Questions for LuxAR

Submission ID: 40

Phase 1

Tasks

1. In one of the applications shown on the physical display, change the icon to apple and the background color to yellow with the mouse. Move the application from the display to the table using the lamp.
2. In one of the applications shown on the physical display, change the icon to dog and the background color to purple with the mouse. Move the application from the display to the wall using the lamp.
3. In the last application shown on the physical display, change the icon to bicycle and the background color to blue with the mouse. Move the application from the display to the ceiling using the lamp.
4. Find the application with apple and move it to the wall. Do not overlay with other applications.
5. Find the application with bicycle and move the application to the table. Do not overlay with other applications.
6. Find the application with dog and move the application to the ceiling. Do not overlay with other applications.
7. Find the application with bicycle and change the left text to "High" using the lamp and keep this text after releasing the lamp.
8. Change the icon of this application from bicycle to banana with the mouse.
9. Find the application with banana and change the left text to "Low" using the lamp and keep this text after releasing the lamp.
10. Find the application with banana and change background color to yellow with the mouse.
11. Move the application with banana from the table to the phone.
12. Wear the marker on the index finger. Change the icon on the phone to car by touching the buttons next to the phone.
13. Change the background color using the slider on the phone by finger.
14. Pick up the application back from the phone to the table.
15. Move the application with car from the table back to the display.

Interview Questions

1. How do you think of moving the window from the display to each surface (e.g., the wall, the ceiling, and the table)? Do you find it hard or easy?
2. How do you think of moving the window from the surface to the phone?
3. How do you think of the whole application flow, from the display to the surface, then to the phone, and finally back to the display using the lamp?
4. How do you think of interacting with content by adjusting the lamp's height?
5. Did you notice the visual change in the lamp display?
6. Did you use the radar view (visual guidance) to find the object?
7. How do you think of using the mouse on any surfaces under the lamp?
8. What do you think of the touches on surfaces and on the phone?
9. Can you think of any scenarios or applications in which this lamp system can be used?

Phase 2

Scenarios

Calendar

1. You want to have the calendar application visible on the surface and won't need to switch applications on the display.
2. You are now interested in today's events. Change the calendar view to a daily view.
3. Let's find the event that happens at 16 p.m. using the mouse.
4. A co-worker comes in, move the calendar application to a surface and share your schedule with them.
5. Instead of showing the entire window, move the calendar application to the clock to show events around the clock.
6. You plan to leave the seat and have an idea of your next event.
7. Move the calendar application to the phone, and you can see the events on the phone.
8. Place the phone on the table. Touch the button on the phone or on the desk to show events from the previous day on the phone.

Music Player

1. You want to play the music and have it visible on any surface.
2. Explore different interfaces for music control.
3. Change the music from "the Weekend" with the mouse.
4. A co-worker comes in and moves the application to the speaker to share this music.
5. The music can be visualised by placing the window on the ceiling. You now want to enhance the atmosphere so the co-worker can also enjoy it.

Drawing on Floorplan

1. You want to annotate a floor plan on the desk.
2. You want to see the details of the whole floor.
3. Now, you want to try a new furniture arrangement in the bedroom. Find the bedroom, and then see the details of it.
4. Draw a bed at a location that you like in the bedroom.
5. Now, you want to see the 3D rendering of the floor plan.
6. Now, you want to display the 3D design to your co-workers so they can also see it.

Interview Questions

1. What do you think of these three applications?
2. What changes or improvements do you think we should make to improve the lamp system or the applications?
3. Suppose you have this lamp system, how will you use it (e.g. manipulating content or only displaying content)?
4. Can you think of any scenarios or applications in which this lamp system can be used?
5. Can you comment on your overall experience using the lamp system?