

## **\*\* Study \*\*: Exploring Robot Puppeteering Using AR in Meta Quest 3**

### **#### Introduction**

You are invited to participate in an initial user study to explore the efficacy of a robot puppeteering system using augmented reality (AR) in Meta Quest 3. Your participation will provide valuable insights into how the system works, which will help in the development and improvement of such technologies. You will use the Meta Quest 3 AR headset to control a virtual Franka robot arm.

### **#### Procedures**

- 1. \*\*Introduction and Training\*\*:** You will be given an overview of the study and a brief tutorial on how to use the Meta Quest 3 AR headset and the robot puppeteering system. You can relocate the virtual robot and try a few trials at the beginning. Try to move slowly and don't swing too much.
- 2. \*\*Task\*\*:** You will try to use the AR puppeteering to complete two tasks: cube stacking and rice scooping. You have both two minutes in each task, try to stack the cubes as many as possible and scoop the rice as much as possible within the time limit.
- 3. \*\*Post-Task Evaluation\*\*:** After completing the tasks, you will be asked to fill out a short questionnaire.

### **#### Duration**

The study will take approximately 30--40 mins to complete.

### **#### Risks and Discomforts**

There are minimal risks associated with participating in this study. You may experience slight discomfort or fatigue from using the AR headset for an extended period. You are free to take breaks or discontinue participation at any time if you feel uncomfortable.

### **#### Confidentiality**

All information collected during this study will be kept confidential. Your data will be anonymized and stored securely. Only the research team will have access to the data, and it will be used solely for research purposes.

### **#### Voluntary Participation**

Your participation in this study is voluntary. You may withdraw from the study at any time without penalty or loss of benefits to which you are otherwise entitled.

---

### **\*\*Consent\*\***

I have read and understood the information provided above. I have had the opportunity to ask questions and have received satisfactory answers. I understand that my participation is voluntary and that I can withdraw at any time without penalty. By ticking the box, I consent to participate in this study.

I agree to participate in this study.

I understand that my data will be kept confidential and used for research purposes only.

