

## **Key Information for User-Centered Design of Control Schemes Using VR Project:**

### **What Am I Being Asked To Do?**

You are being asked to be a volunteer in a research study. This page will give you key information to help you decide if you would like to participate. Your participation is voluntary. As you read, please feel free to ask any questions you may have about the research. Please note, if this study was advertised in your class, participation or lack of participation in this study will not impact your grade in the class, nor will you receive any class credit for this study.

### **What Is This Study About and What Procedures Will You be Asked to Follow?**

The purpose of this study is to learn what motions people would like to use to control robots of different shapes. You will be shown some robots in virtual reality, which will perform various movements. You will be asked to demonstrate motions that you might use to control the robots in order to make them do the moves that are being shown. The study is expected to take no more than an hour.

### **Are There Any Risks or Discomforts you Might Experience by Being in this Study?**

You may experience mild discomfort or motion-sickness from wearing the VR headset. If this occurs, please inform the experimenter, who will pause the study to allow you to recover. If you do not feel comfortable, you are permitted to leave the study early.

### **What Are the Reasons You Might Want to Volunteer For This Study?**

You are not likely to personally benefit in any way from joining this study. However, your participation in this study may assist researchers in designing better control schemes for novel teleoperated robots.

As compensation for your time, we are offering a \$12 Amazon gift card. You will remain eligible for this payment even if you complete only part of the study.

### **Do You Have to Take Part in the This Study?**

It is fully your decision if you wish to be in this study or not. If you choose not to participate, or choose to participate and later determine you no longer wish to, you will not lose any rights, services, or benefits as a result of your withdrawal. The study is completely voluntary.

**CONSENT DOCUMENT FOR ENROLLING ADULT PARTICIPANTS IN A  
RESEARCH STUDY  
Georgia Institute of Technology**

Project Title: User-Centered Design of Control Schemes Using VR

Investigators: *Sonia Chernova, PhD.*  
*Jennifer Molnar*

**Protocol and Consent Title: User-Centered Design of Control Schemes Using VR  
(Main 08/11/23 v2)**

You are being asked to be a volunteer in a research study. Please note, if this study was advertised in your class, participation or lack of participation in this study will not impact your grade in the class, nor will you receive any class credit for this study.

**Purpose:**

The purpose of this study is to learn about how humans might control robots with their own movements, rather than through devices such as video game controllers. You will be shown several robots in virtual reality, which will perform different motions or gestures. You will then be asked to demonstrate movements that you would like to use to control the robots, to make them do the motions you are watching. We expect to enroll 40 people in this study.

**Exclusion/Inclusion Criteria:**

Participants in this study must be able to communicate in English and have basic computer skills. Participants must be between 18 and 89 years old.

**Procedures:**

If you decide to be in this study, you will participate in one study session lasting 60 minutes. At the beginning of the study, we will explain the virtual reality interface and how to navigate within the app you will be using. You will then view a series of gestures being performed by individual robots and will be asked to record your own motions to correspond to and control each gesture that you see. At the end, you will be asked to fill out a survey about your background with robots and virtual reality, and to provide information about how you selected your choice of control motions.

**Risks or Discomforts:**

You may experience mild discomfort or motion-sickness from wearing the VR headset. If this occurs, please inform the experimenter, who will pause the study to allow you to recover. If you do not feel comfortable, you are permitted to leave the study early.

**Benefits:**

You are not likely to benefit in any way from joining this study. However, your participation in this study may assist researchers in designing better control schemes for novel teleoperated robots.

**Compensation to You:**

You will be compensated with a \$12 Amazon gift card<sup>1</sup>. You will remain eligible for this payment even if you complete only part of the study.

**Storing and Sharing your Information:**

Your data will not be associated with any personal identifying information, aside from optional video recordings which you may consent to separately below. If you do not consent to being video recorded, you may still participate in this study. In that case, we will record only your movements and your responses to the Likert questions.

Your data will be stored in a password-protected Georgia Tech Dropbox account and will only be accessed by the researchers involved in this study. Aggregated, anonymized results of the research will be presented at conferences and in publications. Video recordings may be used by researchers to validate the motion data that has been collected. We may also want to use some of the video recordings of you in public presentations related to the research. More information on the use of optional video recordings is below:

**Use of Video and/or Audio Recordings:**

We may want to take video recordings in order to validate the motion data that we capture from the VR headset. Please mark your choice concerning video recordings by initialing one of the options below (please only mark one):

\_\_\_\_\_ I consent to being video recorded during this research study

\_\_\_\_\_ I **do not** consent to being video recorded during this research study

We may also want to use some of the photographs, audio, or video recordings of you in public presentations related to the research. We will not use any videotapes, photographs, recordings, or other identifiable information about you in any future presentation or publication without your consent. Please initial the permissions you would like to give for if and how videos containing your image can be used in public presentations:

\_\_\_\_\_ I give permission for video and/or still images containing my likeness to be used for public presentations concerning this research without alteration

\_\_\_\_\_ I give permission for video and/or still images containing my likeness to be used for public presentations concerning this research, with my face blurred for anonymity

\_\_\_\_\_ I **do not** give permission for video and/or still images containing my likeness to be used for public presentations concerning this research

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<sup>1</sup> Note that U.S. Tax Law requires that a 1099-misc be issued if U.S. tax residents receive \$600 or more per calendar year. If non-U.S. tax residents receive more than \$75, mandatory 30% withholding is required. Your address and Tax I.D. may be collected for compensation purposes only. This information will be shared only with the Georgia Tech department that issues compensation, if any, for your participation.

**Confidentiality:**

We will comply with any applicable laws and regulations regarding confidentiality. The Georgia Institute of Technology IRB, and the Office of Human Research Protections may look over study records during required reviews.

**Costs to You:**

There are no costs to you for being in this study other than your time.

**Questions about the Study:**

If you have any questions about the study, you may contact Sonia Chernova at [chernova@gatech.edu](mailto:chernova@gatech.edu) or 404-385-4753.

**Questions about Your Rights as a Research Participant:**

- Your participation in this study is voluntary. You do not have to be in this study if you don't want to be.
- You have the right to change your mind and leave the study at any time without giving any reason and without penalty.
- Any new information that may make you change your mind about being in this study will be given to you.
- You will be given a copy of this consent form to keep.
- You do not waive any of your legal rights by signing this consent form.

If you have any questions about your rights as a research subject, you may contact

Georgia Institute of Technology  
Office of Research Integrity Assurance, at [IRB@gatech.edu](mailto:IRB@gatech.edu)

If you sign below, it means that you have read (or have had read to you) the information given in this consent form, and you would like to be a volunteer in this study.

\_\_\_\_\_  
Participant Name (printed)

\_\_\_\_\_  
Participant Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time