

## 1.2 Pre-study Screening Questionnaire

### [Consent Collection]

You are being asked to be a volunteer in a research study. The purpose of this study is to understand people's perceptions of assistive robots' capabilities in smart home environments. For this study, we are looking for people to participate in a focus group discussion. This survey is a pre-study screening questionnaire for us to know more about your experience with technology. The survey should take you around 10 mins to complete and survey results will remain confidential.

The focus group will take approximately 1.5 hours to complete. You will be presented with information relevant to robots and smart home technologies. Then, you will be given questions to discuss how you think robots can help you in home settings with another 3-5 adults. The group will be conducted online through a meeting conference tool or in-person at Centergy One Building at Georgia Tech (75 5th St NW). The discussion will be video- and audio-taped and observed by the focus group staff. Your participation and everything you say during the discussion will remain confidential. The risks involved are no greater than those involved in daily activities.

You will be compensated with a \$30 Amazon gift card for joining this study. We will comply with any applicable laws and regulations regarding confidentiality. To make sure that this research is being carried out in the proper way, the Georgia Institute of Technology IRB may review study records. The Office of Human Research Protections may also look at study records.

Upon successful completion of this survey, if you are a good fit for the study, you will be contacted by a researcher to schedule a time for the focus group.

If you have any questions about the study, you may contact the Principal Investigator Brian D. Jones at telephone (404) 894-1074. If you have any questions about your rights as a research subject, you may contact Ms. Melanie Clark, Georgia Institute of Technology at (404) 894-6942. Thank you for participating in this study.

By selecting the box below and completing the online survey, you indicate that

Your participation in the study is voluntary.

You are between 18 and 85 years of age.

You have read (or have had read to you) the information given in this study.

You are aware that you may choose to terminate your participation at any time for any reason. -----  
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### Contact information

If you are interested in participating in the focus group, please leave your contact information and a research team member will contact you with further information.

Name:

Phone:

Email:

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### User ID (random generated)

This is your ID number: xxxxxx

Please copy this number. Once you've copied your ID, click Submit to proceed to finish the survey.

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Please enter your user ID here: \_\_\_\_\_

### Technology Use

Which of the following technologies do you typically use? (Select all that apply)

- ☐ Television Set
- ☐ Microwave or Dishwasher
- ☐ Coffee maker
- ☐ Washing machine
- ☐ Refrigerator
- ☐ Smart Phone or Tablet
- ☐ Computer or Laptop
- ☐ Smart Watch or Tracker (Apple Watch, Fitbit, Garmin, etc.)
- ☐ Online Video Calls (Zoom, Microsoft Teams, Skype, etc.)

How comfortable are you with technology?

- ☐ Very comfortable, I would consider myself to be an early adopter

- Moderately comfortable, I'm confident in using most of the new technology
- Not at all comfortable, I need assistance learning every new technology

Please indicate which of the following smart home technologies do you have in your housing. \*All smart technologies listed below involve the use of apps for control and monitoring purposes.

Smart Home Technologies	Do not have	Have, but do not personally use	Have and personally use
Smart speaker (Google Home, Amazon Echo, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interactive security system (Ring Alarm, SimpliSafe, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart thermostat (Amazon Smart Thermostat, Nest Thermostat, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitoring camera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video doorbell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart light bulb/light switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion sensors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Door/window sensors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart door lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart smoke detector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart garage door opener	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart outlet / smart plug	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart oven	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart window shade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Water leak detector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Irrigation control system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water shutoff system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which of the following robots do you own or have used in the past? (Select all that apply)

- ☐ Household robots (floor cleaners, lawnmowers, etc.)
- ☐ Commercial entertainment robots (digital pet, commercial show robots, etc.)
- ☐ Industrial robots (medical service robots, food service robots, etc.)
- ☐ I have only seen some of the robots from the media but have no experience using them
- ☐ I don't know anything about robots
- ☐ Other (please specify):

## Health Status

What are the main difficulties you (or your care recipients) experience in daily life? (Select all that apply)

- ☐ Memory and concentration problems
- ☐ Hearing problems
- ☐ Vision problems
- ☐ Moving around
- ☐ Joint pain (shoulder, knees, wrists, fingers, etc.)
- ☐ Chronic diseases (diabetes, hypertension, etc.)
- ☐ Sadness, depression, anxiety
- ☐ Solitude or isolation
- ☐ None of those
- ☐ Other (please specify) \_\_\_\_\_

Do you use any of the following mobility aids? (Select all that apply)

- ☐ Cane
- ☐ Scooter
- ☐ Crutch(es)
- ☐ Manual wheelchair
- ☐ Walker

- ☐ Power wheelchair
- ☐ Stair lift
- ☐ Other (please specify) \_\_\_\_\_
- ☐ None of those

Do you use any of the following assistive devices? (Select all that apply)

- ☐ Glasses
- ☐ Contacts
- ☐ Orthosis (e.g., knee brace)
- ☐ Reading magnifier
- ☐ Hearing aid
- ☐ Prosthesis
- ☐ Bath / shower chair
- ☐ Bed / bath / shower / toilet rails
- ☐ None of those

### Living Situation

Which of the following best describes you?

- ☐ Caregiver
- ☐ Care recipient
- ☐ None of those

[Follow up - If caregiver]

I am a caregiver for:

- ☐ My spouse
- ☐ Other family member(s)
- ☐ Non-family member(s)
- ☐ Other (please specify) \_\_\_\_\_

[Follow up - If care recipient]

I receive care from:

- ☐ Spouse
- ☐ Another family member(s)
- ☐ Friend(s)
- ☐ Professional caregiver

- Other (please specify) \_\_\_\_\_

In which type of housing do you live?

- Single family detached home (e.g., house, mobile home)
- Single family attached home (e.g., townhome, duplex)
- Apartment or condominium
- Accessory dwelling unit (e.g., in-law suite, secondary cottage)
- Independent living community
- Assisted living community
- Other (please specify) \_\_\_\_\_

Including yourself, how many permanent residents are in your home? \_\_\_\_\_

Indicate the permanent residents in your home other than yourself. (Select all that apply)

- ☐ No additional people
- ☐ Spouse
- ☐ Adult relatives, such as adult children, cousins, or in-laws
- ☐ Adult nonrelatives, such as roommates
- ☐ Children, under the age of 18
- ☐ Other (please specify) \_\_\_\_\_

## General

On a scale of 1-5, how comfortable are you understanding and speaking English? 1 is very uncomfortable, 3 is somewhat comfortable, and 5 is very comfortable.

On a scale of 1-5, how comfortable are you participating in a group discussion with approximately 4-6 other adults? 1 is very uncomfortable, 3 is somewhat comfortable, and 5 is very comfortable.

On a scale of 1-5, how comfortable are you discussing technology? 1 is very uncomfortable, 3 is somewhat comfortable, and 5 is very comfortable.

This study will be conducted either online through conference meeting tools such as Microsoft Teams or Zoom, or in-person at the Aware Home Facilities at Georgia Tech (479 10th Street NW). Would you prefer to attend online or in person? Free parking will be provided for in-person study. (Select all that apply)

- ☐ Online
- ☐ In-person

Are there any accommodations that we could provide for you to be more comfortable participating in the study?

### Demographic

Which category best describes your age?

- ☐ Under 18
- ☐ 18 – 29
- ☐ 30 – 49
- ☐ 50 – 69
- ☐ 70-85
- ☐ 86 and above

What is your gender?

- ☐ Male
- ☐ Female

What is the highest level of education you have completed?

- ☐ Less than high school graduate
- ☐ High school graduate / GED
- ☐ Vocational training
- ☐ College / Associate's degree
- ☐ Bachelor's degree (BA, BS, etc.)
- ☐ Master's degree (or other post-graduate training)
- ☐ Doctoral degree (PhD, MD, EdD, DDS, JD, etc.)

Which category best describes your yearly household income?

- ☐ Less than \$25,000
- ☐ \$25,000 - \$49,999
- ☐ \$50,000 - \$74,999

- \$75,000 or more
- Do not wish to answer
- Do not know for certain