GENERAL INFORMATION

APPLICATION TYPE

Record #: IRB-21-0485

* What type of application are you submitting?
  Standard IRB application

* There are 3 application types available

  Use this application if neither of the options listed above is applicable.

* Is this a student project?
  ☑ Yes  ☐ No

* Student project type:
  Graduate project (M.S. Ph.D., other)

  * (Specify):
    Thesis Project

* Title of Study
  Live-Coding with Voice Command

* Locations of Research: (If at WPI, please indicate where on campus. If off campus, please give details of locations.)
  Off campus, we will do this test remotely.

Anticipated Dates of Research:

* Start Date:
  15-Mar-2021

* Completion Date:
  01-Apr-2021

* Which of the following categories best describes your study?
  Social Sciences, management and other non-biomedical disciplines
Purpose of Study:
(Please provide a concise statement of the background, nature and reasons for the proposed study. Insert below using non-technical language that can be understood by non-scientist members of the IRB.)

Our project means to provide an immersive environment for live coding performers. With the combination of User interface system and voice command/input system we can allow players to create objects freely. And we argue this embodied style is more appropriate to our project than using traditional input devices and voice input is novel in the live coding communities. So this test is a good chance for us to get some suggestions and opinions from participants and then improve our project.

* Has an IRB ever suspended or terminated a study of any investigator that will be listed on this protocol?
  - ☐ Yes
  - ☑ No

Please indicate if your study involves:

* Investigational drugs or investigational medical devices
  - ☐ Yes
  - ☑ No

* Hazardous Materials
  - ☐ Yes
  - ☑ No

* Special diets
  - ☐ Yes
  - ☑ No

* Collaborating Institutions: (Please list all collaborating Institutions.)
  - None
### FUNDING INFORMATION

**How will the study be funded?**

- [ ] Grant/Contract/Subaward (Federal)
- [ ] Grant/Contract/Subaward (Non-Federal)
- [ ] Departmental funds
- [ ] Faculty start-up or incentive funds
- [ ] Investigator out-of-pocket
- [ ] No funding anticipated
**STUDY PERSONNEL**

All study personnel having direct contact with subjects **must** take and pass a training course on human subjects research. There are links to web-based training courses that can be accessed under the Training link on the IRB website [https://www.wpi.edu/research/support/compliance/institutional-review-board](https://www.wpi.edu/research/support/compliance/institutional-review-board).

<table>
<thead>
<tr>
<th>Name</th>
<th>Involvement Start Date</th>
<th>End Date</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiang, Chunzhen</td>
<td>11-Mar-2021</td>
<td></td>
<td>Student Investigator</td>
</tr>
</tbody>
</table>

Please upload a copy of your relevant HS training certificate(s):

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Liu, Jian</td>
<td>11-Mar-2021</td>
<td>01-Apr-2021</td>
<td>Co-Investigator</td>
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</table>

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</thead>
<tbody>
<tr>
<td>Yan, Kai</td>
<td>11-Mar-2021</td>
<td>01-Apr-2021</td>
<td>Co-Investigator</td>
</tr>
</tbody>
</table>

Please upload a copy of your relevant HS training certificate(s):
SUBJECT INFORMATION

Record #: IRB-21-0485

Please provide the exact number of subjects you plan to enroll in this study and describe your subject population. (eg. WPI Student, Staff, UMASS Medical patient, Other)

* Males: 50
* Females: 50

* Description:
  WPI Students who might be interested in our project.

* Will subjects who do not understand English be enrolled?
  □ Yes  ✔ No

* Are there any circumstances under which your study population may feel coerced into participating in this study?
  □ Yes  ✔ No

* Are the subjects at risk of harm if their participation in the study becomes known?
  □ Yes  ✔ No

* Are there reasons for excluding possible subjects from this research?
  □ Yes  ✔ No

Recruitment

How will subjects be recruited for participation?
(Check all that apply)

☐ Direct subject advertising, including: (Please provide a copy of the proposed ad. All direct advertising must be approved by the IRB prior to use.)

☐ Newspaper  ☐ Bulletin Board

☐ Radio  ☐ Flyers

☐ Letters  ☐ Television

☐ Internet  ✔ E-mail

☐ Referral

☐ Database

☐ Other
Are the subjects being paid for participating?
(Consider all types of reimbursement, ex: stipend, parking, travel.)
☐ Yes  ☑ No

Vulnerable Populations
The proposed research will involve the following (Check all that apply):

☐ Pregnant women (check only when pregnancy is material to the study)
☐ Human fetuses
☐ Neonates
☐ Persons under the age of 18
☐ Prisoners
☑ WPI Students
☐ Individuals with mental disabilities
☐ Individuals with physical disabilities
INFORMED CONSENT

Record #: IRB-21-0485

A. Informed Consent Process

Who will discuss the study with and obtain consent of prospective subjects?
(Check all that apply)

- [ ] Principal Investigator
- [x] Co-Investigator(s)
- [x] Student Investigator(s)

* Will you ask all subjects to read and sign an informed consent form prior to their participation in the study?
  - [x] Yes
  - [ ] No

Informed consent forms must be approved by the IRB and stamped approved prior to use

* Do you agree that the person obtaining consent will explain the risks of the study, the subjects right to decide not to participate, the subjects right to withdraw from the study at any time?
  - [x] Yes
  - [ ] No

* Do you agree to spend as much time as needed to thoroughly explain and respond to any subject's questions about the study, allow them as much time as needed to consider their decision prior to enrolling them as subjects?
  - [x] Yes
  - [ ] No

B. Consent Form

Upload a copy of the informed consent form(s) that you will be using. Your forms should follow the templates at: http://wpi.edu/office/irb/forms.html

C. Documentation of Informed Consent

How will you maintain documentation of participant's informed consent?
(Choose one)

- [ ] The principal investigator will retain all of the signed informed consent agreements in a secure location for at least three years after the end of the study.

- [ ] The principal investigator will provide the signed informed consent agreements to the IRB at the end of the study.

- [ ] No documentation of consent will be kept.
A risk is a potential harm that a reasonable person would consider important in deciding whether to participate in research. All potential risks and discomforts must be minimized to the greatest extent possible by using e.g. appropriate monitoring, safety devices and withdrawal of a subject if there is evidence of a specific adverse event.

Identify below the potential risks that participants in your study will be exposed to, as well as the procedures for minimizing such risks:

- Physical pain or discomfort
- Injury
- Illness or infection
- Exposure to hazardous materials
- Exposure to radiation
- Stress
- Loss of privacy
- Embarrassment or risk to reputation
- Exposure of sensitive or confidential data
- Risk of financial loss
- Legal liability
- Other

☑️ No risk greater than experienced in everyday life
POTENTIAL BENEFITS

Record #: IRB-21-0485

* What potential benefits other than payment may subjects receive from participating in this study?
  None

* What potential benefits can society expect from the study?
  None
DATA COLLECTION, STORAGE, AND CONFIDENTIALITY

Record #: IRB-21-0485

* How will data be collected?
  We will collect the data by allowing participants to do the survey.

* Where will the data be stored and how will it be secured?
  It will be stored in our computers and we won't share to any other people. And actually, none of this data contains any personal information.

* Will personally identifying information be recorded?
  Yes [x] No

* Will a subject's voice, face or identifiable body features (e.g. tattoo, scar) be recorded by audio, video recording or photography?
  Yes [x] No

* Can data acquired in the study adversely affect a subject's relationship with other individuals? (e.g. employees, supervisor, student-teacher, family relationships)?
  Yes [x] No

* Do you plan to use or disclose personally identifiable information outside of the investigation personnel?
  Yes [x] No

* Do you plan to use or disclose personally identifiable information outside of WPI including non-WPI investigators?
  Yes [x] No

* What will happen to the data when the study is completed?
  We will delete all the data we collect from this test.
An incidental finding is information discovered about a subject which should be of concern to the subject but is not the focus of the research. For example, a researcher monitoring heart rates during exercise could discover that a subject has an irregular heartbeat.

Is it possible that the investigator will encounter any incidental findings?

☐ Yes  ☑ No
DECEPTION

Record #:

Will your study involve deception of participants or incomplete disclosure of study details?

Deception means intentionally provide misleading or false information to participants.
Incomplete disclosure means withholding information from participants about the true purpose or nature of the research.

☐ Yes  ☐ No
CONFLICT OF INTEREST

Record #: IRB-21-0485

A conflict of interest occurs when an investigator's financial interests have the potential to compromise the objectivity of the research. A conflict also occurs when an investigator may enjoy material benefits based on study results. Relationships that give rise to a conflict of interest or the appearance of a conflict of interest must be disclosed in the informed consent statement provided to study subjects.

* Do any of the investigators listed on this application have a potential or actual conflict of interest with regard to this study?

☐ Yes  ☑ No
STUDY INFORMATION

* Expected Research Subjects:
  (e.g. museum visitors under the age of 12)
  All the people.

* Project Mission Statement and Objectives:
  Participants will follow the tutorials, which will be shown in the project, to learn how to do a live-coding show with our project system.
  And after they experiencing our project, we need them give us some comments and suggestions to help us improve our project.

* Brief Methods Listing:
  (e.g. "Survey of public to ascertain knowledge and opinions about climate change" or "Interview of professionals working on climate change regarding effective city climate change program")
  1. Following the tutorials to learn how to create things in our game;
  2. Experiencing our game without any prompts;
  3. Survey of their feeling of experiencing our game.

* Does the proposed research involve vulnerable research subjects?
  (e.g. children, prisoners, students, persons with mental or physical disabilities)
  □ Yes  ✓No

* Does the research involve human subjects in ways other than as participants in interviews, focus groups, or surveys?
  (e.g. observation of public behavior, use of archived data or experimental procedures)
  □ Yes   ✓No

* Will the researchers collect information that can be used to identify the subjects?
  □ Yes  ✓No

* Could the disclosure of a human subject's identity and responses place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing, employability or reputation?
  □ Yes   ✓No

* Will the researchers disclose the identity or the individual responses of any human subjects?
  (e.g. by quoting an individual, whether or not identified by name or title)
  □ Yes   ✓No

Appendix 1

Attach the statement of research methods or draft methodology chapter:  

Attach a draft of surveys and/or a list of questions to be used for interviews or focus groups:  

If sample questions are included in Appendix 1, Methodology chapter, indicate the page numbers here:
If you have any additional documents you would like to include with your application, you can upload them here.
INVESTIGATOR’S ASSURANCE

* ☑ I certify that the information provided in this application is complete and correct.

* ☑ I understand that I have ultimate responsibility for the conduct of the study, the ethical performance of the project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the WPI IRB.

* ☑ I agree to comply with all WPI policies, as well as all federal, state and local laws on the protection of human subjects in research, including:
  • ensuring the satisfactory completion of human subjects training.
  • performing the study in accordance with the WPI IRB approved protocol.
  • implementing study changes only after WPI IRB approval.
  • obtaining informed consent from subjects using only the WPI IRB approved consent form.
  • promptly reporting significant adverse events to the WPI IRB.

* ☑ I certify that I have added all Study Personnel, including students to the study personnel page.

Worcester Polytechnic Institute
Research
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Email - IRB@wpi.edu