

## **Scheduling Participants**

Ask for participants' availability and schedule a 60 minute time slot for each of them. Double check the time with them the day before the test day and send them the exact location.

**\*\***Make sure to remind them about bringing a pair of shorts and changing to them before the meeting time. Also, make sure to send them a diagram of the placement of the actuators and make sure they are aware of having to put the bands on those locations.

## **SETUP**

Connect two screens, the USB hub and the sound card's USB cable to the computer. Make sure your computer is not going to receive ANY notifications.

Turn the projector on. Do not change the setting of the image if it is set already. If not, put the image to its smallest size and flip it to mirror.

In Unity, open two "Game" tabs and set them to Display 2 and Display 3. Drag the Game window for Display 3 to the projector screen and the Display 2 to the Wacom tablet and put them on full screen. In the "Display Setting" of your computer, set the Wacom Tablet as the main display.

Make sure to play the game from Unity once before the participant arrives and test the stylus.

Turn the amplifiers on and make sure the haptuators are all vibrating by playing sample sounds from each of the three channels. Do not change the volume of the amplifiers if they are set already.

Print the Consent form, Questionnaires and the compensation receipt sheet.

On the participants list, enter their Subject ID, name and the chosen order of conditions for each participant you are expecting to conduct the test on.

## **Greetings**

Meet the participant at their scheduled time in the room MC434 in McConnell Engineering Building. Greet them and thank them for their participation. Ask the subject to change into their pair of shorts if they haven't already (point them to the bathroom, or maybe leave the room and let them change in there).

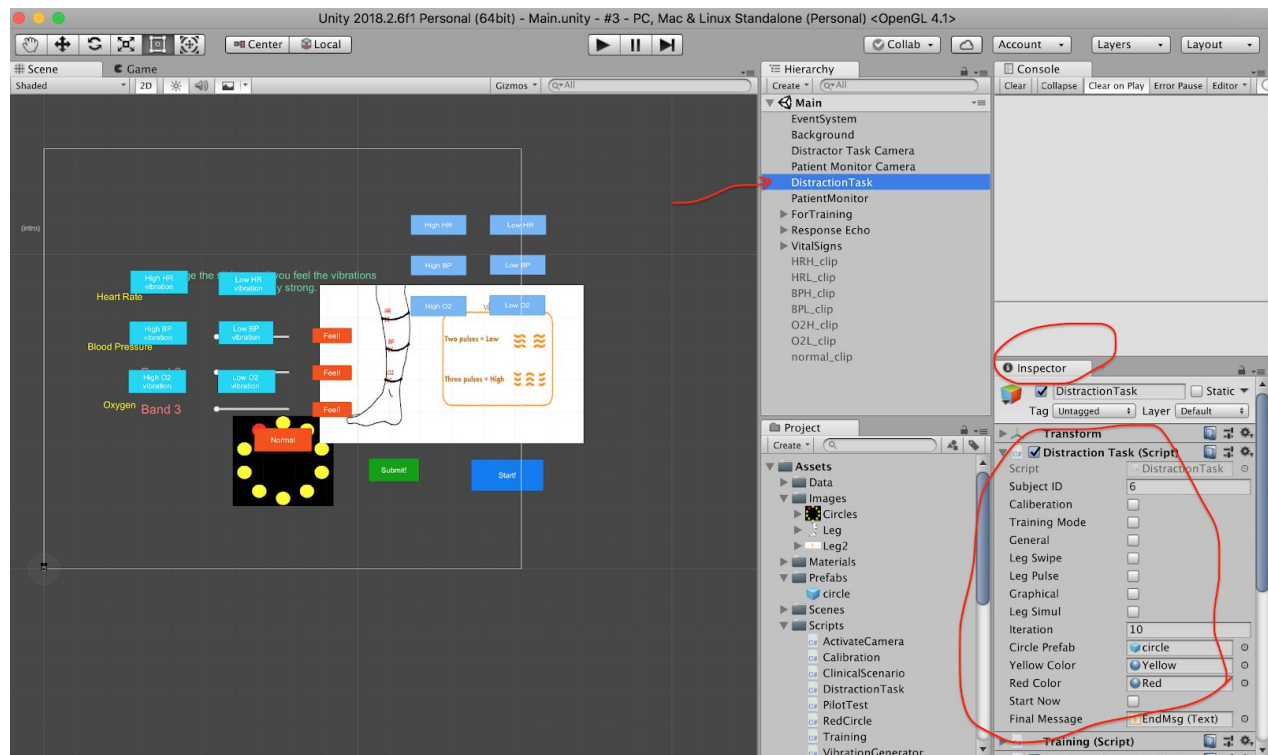
## **Consent Form and Questionnaire**

Hand the consent form to the participant and let them read it carefully and sign it. Record the subject ID number, date, time and the room's temperature on the pre-test questionnaire sheet. Hand the questionnaire to the participant and ask them to fill it out.

# Running The Experiment

## Conditions

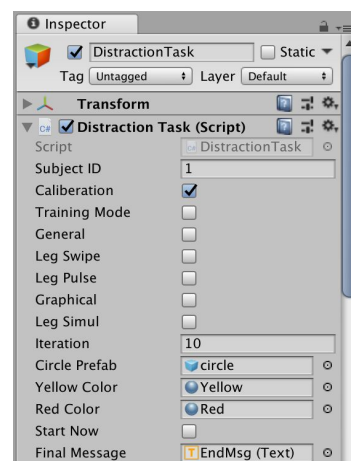
To access the area to input the participant ID as well as changing the conditions, you have to click on “Distraction Task” on the **Hierarchy** menu. On the **Inspector**, you will see the control button that I will explain in more details



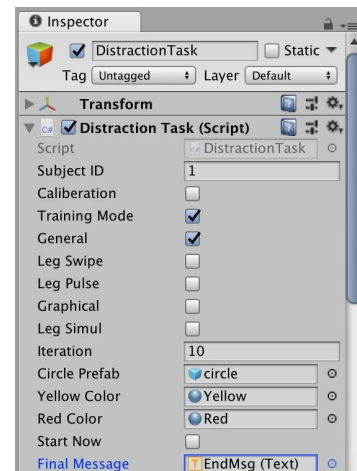
Set the Subject ID appropriately.

## Calibration and Training

For the Calibration mode, check the bubble in front of the “Calibration” title and play.



General training gives the participant a general understanding of the experiment and different components. Set both the “Training Mode” and “General” and play.



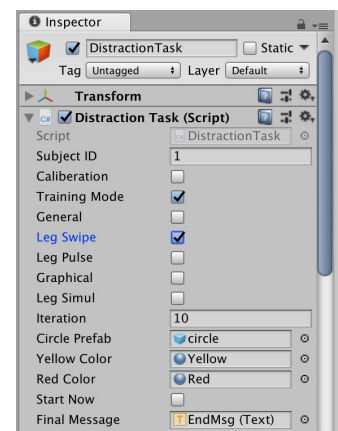
## Experimental Conditions

There are four conditions for this experiment. You run the conditions based on the order you chose for that participant.

For each condition, there are three parts you have to go through:

### 1. Training

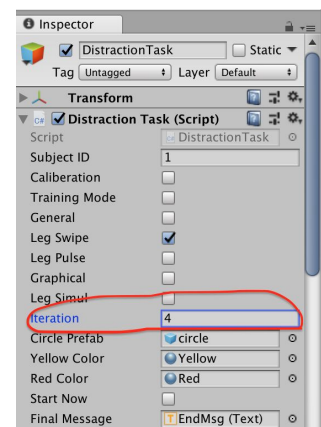
Play the training section of that condition to make them familiarized with the details of that specific condition. For example if you are on Leg Swipe condition, you should select “Training Mode” AND “Leg Swipe” at the same time then hit play.



### 2. Trial

After the training is over, tell the participant that you will play a short version of what they will experience in the main test now. Let them know that you are not recording data, so they can ask questions during this trial if they want to.

Put the **iteration** as 4 and deselect “Training Mode” and keep the “Leg Swipe” selected.

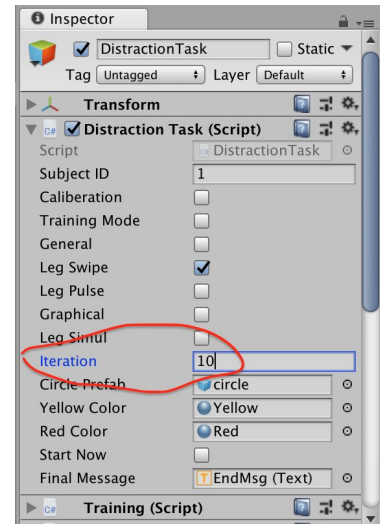


Ask the participant to put the headphones on, and start the trial. Observe if they are struggling or doing something wrong in the trial and write them down.

### 3. Test

After the trial, tell the participant the mistakes you observed during the trial and let them ask you any questions they have. If needed, go through the training again and let them experience the vibration until they fully understand them. After they feel confident about what they are expecting on the real test, get ready to play the test.

Set **iteration** as 10. Let the participant know that this is the main test and you will not be able to speak with them during this section. Let them know it will take less than 10 minutes to complete this part and after they put on the headphones, start the test.



Repeat this for all the four conditions. Between each condition, ask the participant to take a break of at least 3-4 minutes before moving on to the next part. They can sit on the chair if they want to (make sure nothing gets disconnected in the meanwhile).

For going to the next condition, always make sure the options are selected correctly.

## Checklist

Some extra things to make sure you are taking into consideration before/during the test.

- ☐ Tell the subject to remove anything that vibrates or makes sound (smart phone, smart watch, ankle band, etc.) from their pocket/wrist and put them on silent.
- ☐ Tell the subject to keep their leg with the haptic band on fairly stable, but they can have small movements to prevent fatigue and numbness.
- ☐ Explain to the subject that the experiment is fast-paced and requires high attention and multitasking. Make sure they don't get frustrated if they missed too many of responses.
- ☐ Explain to the subject that the test will take 60 minutes and it includes 4 periods of around 10 minutes that they need to be standing. They can take a break between each section and sit down.
- ☐ If you observed that the participant is skipping the training pages too quickly without carefully reading the instructions, make sure to remind them they have to pay attention to the training section and since the experiment has many elements and can get confusing if they are not trained for it fully.