8 INSTRUCTIONS: READ ME

8.1 PREREQUISITES

The following pieces of software need to be installed in order to compile and run a test version of the current iteration. Unity version 2017.3.0f3 (if a new version is utilized the package provided by Leap Motion for the hand scripts will result in an error and will not compile and run properly). Also, install the latest version of the Oculus Rift Installer. Furthermore, the following hardware components are necessary:

1) a video card (graphics card) equivalent to or greater than in capacity to the NVIDIA GTX 970 / AMD R9 290
2) a CPU equivalent to or greater than Intel's i5-4500
3) at least 8 GB RAM.
4) Oculus Rift & Oculus Rift Touch Controllers

8.2 PULL REQUEST

1) Locate the repository on Github using the following link: https://github.com/CSE3311TEAM8/VirtualTrainingSimulator
2) Click on the "Pull" Requests window tab
3) Click on "New" Pull request
4) Finally, at the base dropdown menu select "master"

8.3 OCULUS SET-UP

1) After running the installation, the user needs to install and update the Oculus Rift
2) Run the installer
3) Follow the Oculus Rift on Screen setup for the sensors, controllers, and headset

8.4 RUN

1) Click on the downloaded folder and select the "Assets" folder
2) Find the file with the extension ".unity"
3) Click on the file and Unity's IDE will instantiate the selected program
4) Click on the "Play" button on the top of the IDE
5) Have either yourself or another User put on the Oculus Headset
6) Click on "Local Host" on the Unity IDE within the Desktop
7) Click on "Start"
8) Resume running the application within the Oculus Headset

8.5 WITHIN THE HEADSET

1) Use the Oculus Touch Controllers to interaction with environment
2) Use the Oculus Headset to change the line-of-sight

9 Test Cases

9.1 Interaction With Environment Via Head Motion

The user can interact with the virtual environment through movements of their head. As a test case,

1) The beginning position is referred to as a frontal anatomical correct stationary position
2) The user should move their head 90 degrees to the right
3) Return to the frontal anatomical correct stationary position
4) The user should move their head 90 degrees to the left
5) Return to the frontal anatomical correct stationary position
6) The user should move their head up 90 degrees and down 90 degrees to view all possible lines-of-sight.

9.2 Interaction With Environment Via Hand Motion

The user can use the Oculus Touch Controllers to interact with Iteration 1's environment demo objects. The following test cases was developed with the following demo objects: a red cube, a blue cube, and a yellow cube. The test case to test the hand's ability and limitations in motion are as follows:

1) Using both virtual hands (both motion controllers) lift the blue cube off the table (lift by placing both hands on opposite sides)
2) Place the cube on top of the yellow cube
3) Repeat by placing the red cube on top of the blue cube.
4) Launch the cubes off the table by pushing the cubes off the table with either of the virtual hands