Project Deliverable H: Prototype III and Customer Feedback
Group B17

Said Shaheen 8176760

Daniel Clark 300115945

Chun Mo (Thomas) Hui 300134574

Peng Tian 300065015

Thomas Farkas 300114076

Xixi Ling 300120658

TA: Ebin Joseph

November 14th,2019

Why are we doing this test?

*This is an introduction. Capture the reasons for the test, giving enough background information to justify doing **any** prototyping at all. Is the **general** objective one of: learning, communication, de-risking, etc.*

In this prototype, we are doing this test to display the basic concepts of the medical procedure simulation to the client. We want to hear how the client would assess the hospital room in our simulation with the videos being played.

Test Objectives Description

*What are the **specific** test objectives?*

For the third prototype, our objective is be able to seamlessly switch between videos with buttons, as well as have one controller working as a laser pointer, and the other working as a radial menu system.

*What **exactly** is being learned or communicated with the prototype?*

We are showing the client of what the hospital patient would see when using the simulation. The easy switching between the videos and the added features on the controllers make the experience as easy and interactive as possible for the patient.

What are the possible types of results?

The possible types of result are minimum because the client may either approve of what we are doing or not. We want the client and the patient to be able to play the simulation using the Vive controllers, and without facing any health side effects such as dizziness or nausea.

How will these results be used to make decisions or select concepts?

We will take the client's feedback seriously and act accordingly. We will keep the concepts that are working to improve or add to them, and we will remove anything that is not required. If the client gets a good feeling overall while playing the simulation using the Vive controllers, then we will move forward and not take a step back.

What are the criteria for test success or failure?

For a successful test, we want to receive positive feedback and constructive criticism on our prototype. This allows us to fix any shortcomings and to be to provide a realistic experience for the hospital patients. The test would be a failure if the simulation is not functional or deemed unrealistic by the hospital patients. It would be a terrible failure if the simulation is not working because then we cannot even receive feedback on it.

What is going on and how is it being done?

*Describe the prototype **type** (e.g. focused or comprehensive) and the reason for the selection of this type of prototype.*

The prototype type of prototype 3 is comprehensive as we want to test out the environment of the hospital simulation and the functionality of the medical procedure videos. We need to optimize the simulation mechanics to improve the overall quality.

Describe the testing process in enough detail to allow someone else to build and test the prototype instead of you.

The student must know how to use the gaming software called Unity3D, however if they do not, there are plenty of online tutorials on how to get started. The first thing to do is to create a hospital room, and to be able to implement a code that allows the medical procedure videos to be played. There are plenty of examples online of similar simulations and even one can purchase a whole virtual hospital on Unity3D store. Need to learn how to script for controllers.

*What information is being **measured**?*

No quantitative or qualitative data is being measured as there are no numerical values thus far.

*What is being observed and how is it being **recorded**?*

The design of the prototype 3 is being observed. The design is the setting and environment of the simulation, which is the hospital. The client's feedback will be recorded by our assigned notetaker on their laptop.

What materials are required and what is the approximate estimated cost?

We need a powerful PC that can support virtual reality programs along with the VR headset and controllers. Additional textures and scenes can be bought in the unity store. We have purchased hospital lowpoly for $20 CAD , which was a package of objects and furniture commonly found at the hospital. We will make sure not to go over the $100 budget.

What work (e.g. test software or construction or modeling work or research) needs to be done?

The 180 stereoscopic video has been created so that it is compatible with the VR goggles, and so that when the user puts the goggles on, it is clearly working virtual reality. A hospital waiting room has been created, which is also the main menu of the simulation. The laser pointer and radial menu system have also been created. The orientation of the videos, the colours of the waiting room, and the overall functionality of the laser pointer still need to be fixed.

When is it happening?

*How long will the test take and what are the **dependencies** (i.e. what needs to happen before the testing can occur)?*

The test will take about 15 minutes. 15 minutes would be enough time for the client to get an idea of the simulation and provide us with feedback. The dependencies of the test are that everyone in our group is ready for the presentation and that the client gives us feedback.

A separate test planning Gantt chart can be created to help making sure that the testing fits with the overall project schedule or it can be defined as part of that schedule (i.e. as a sub-task).

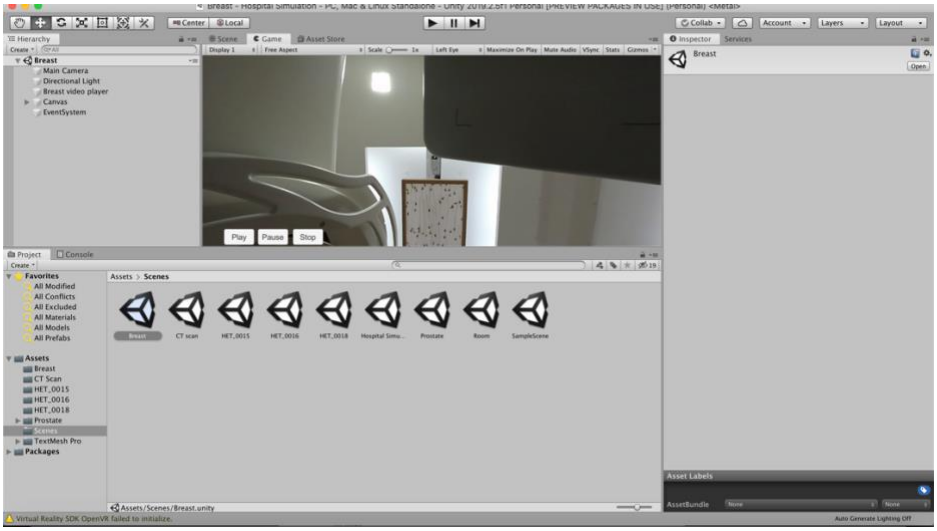
We included the testing of the prototypes in the schedule during the completion of our last deliverable.

When are the results required (i.e. what depends on the results of this test in the project plan)?

The results of the prototype III are required by November 21st when the deliverable is due. The project plan relies on the results. We will revise our idea completely and add concepts if the results are negative, and if the results are positive then we will continue improving our plan for the final prototype.

Conclusion:

With the positive feedback that we have received from the client, we were able to further enhance the quality of the simulation. The simulation is almost ready for the patients, as we are just placing the finishing touches.

Prototype III Images:

Not able to add screenshots of laser pointer and radial menu system