GNG1103 Section #B02 Team #B05

Project Deliverable F: Prototype I and Customer Feedback

GNG 1103 – Engineering Design

Faculté de génie
Faculty of Engineering

Introduction

Why are we doing this test?

The tests main objective is to display to basic concepts of the team's VR Interface application to the client. The reason for this test is to gain feedback from the client on our group's VR Interface idea to ultimately further enhance the completion of the application.

Test Objective Description.

What are the specific test objectives?

For this test, the group's objectives are to complete the basic interface and camera movement of the project as well as file selecting in order to give the client a rough idea of the visual of our prototype. Specifically camera movement refers to the light following the camera, and the camera rotation following the user.

What exactly is being learned or communicated with the prototype?

With this particular prototype, we are showing the client a very rough idea of what our VR Interface will look like for the user. This will include the menu itself, the rotating camera and file selecting. Further testing will give us more insight as to what is good, what needs a change to make a more user-friendly interface and what needs improvement, and how we can improve it.

What are the possible types of results?

The possible types of results are minimum as a lot is subject to the client's feedback. The client may approve the direction that our project is heading to and make it reasonable to continue or may not.

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

Using the client's feedback that we will obtain when the client sees the project and some parts of it that we have developed, the team will select further concepts to add to the project or remove from it.

What are the criteria for test success or failure?

The criteria for a successful test is that we receive useful feedback on our flaws. This is crucial as it allows us to fix any critical errors in order to make the best possible experience for the consumers. We would think of a test as a failure if nothing in our project is functional and is not usable by the cancer patients. If the client can not give any feedback to our project because it is completely non-operational, we will have a difficult time figuring out our flaws and our final product will not be developed as it could have been.

What is going on and how it is being done?

Describe the prototype type and the reason for the selection of this type of prototype.

The prototype type we chose is primarily comprehensive. We want to test out the functionality of the main mechanics of the menu in the project and video displaying of it.

Describe the testing process in enough detail to allow someone else to build and test the Prototype.

In order to build and test our prototype, first, the person should learn how to use the program used for this project which is unity3D by watching youtube videos or having help from others (this is in case the person does not know how to use the program at all). Then the individual will purchase an asset from the Unity store, which is a 3D replica of a hospital waiting room. After that, he/she would have to develop a menu in which the user could select video files, or alternatively, the health care provider could load up video files themselves. And finally, the person would have to create a canvas in order to create a projection of the videos provided by the client in 180°. This can be done in several ways, the team is using the inside of a cut-out sphere as the canvas.

What information is being measured?

There is no quantitative information being measured, but rather qualitative as the information being tested is the design of the prototype and the feedback on it, and not numerical values.

What is being observed and how is it being recorded?

The design of the prototype is being observed. The design of the project is the fundamental part of it as it is the main focus in the design. The information (the feedback provided by the client and his thoughts on our initial design) will be recorded by writing it down and a specific teammate (Alexandr) is in charge of it.

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

Since this game is completely virtual and the client has the required equipment to test the game (Powerful computer, a VR headset and controllers), the cost will be just the assets that the team decides to purchase from the unity asset store. As of now, the only expected purchases is a 3D pre-made hospital waiting room. More assets may be purchased as the team completes the project. Currently, the estimated cost is $39.40 CAD, but the final design will cost no more than $100 CAD as that is the budget.

What work (Test software or construction or modeling work or research) needs to be done?

We currently have created a simple menu interface, the file selection and the camera rotation. We have the model for the 3D hospital waiting room. At this point, the group still needs to implement the hospital waiting room into the final design as well as polish and improve the visual of our UI (User Interface). The group also needs to add an option for the health care provider to load the videos into the program itself, so the user would not have to select anything if that is required. We have provided pictures of our current development stage at the end of the document.

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)?

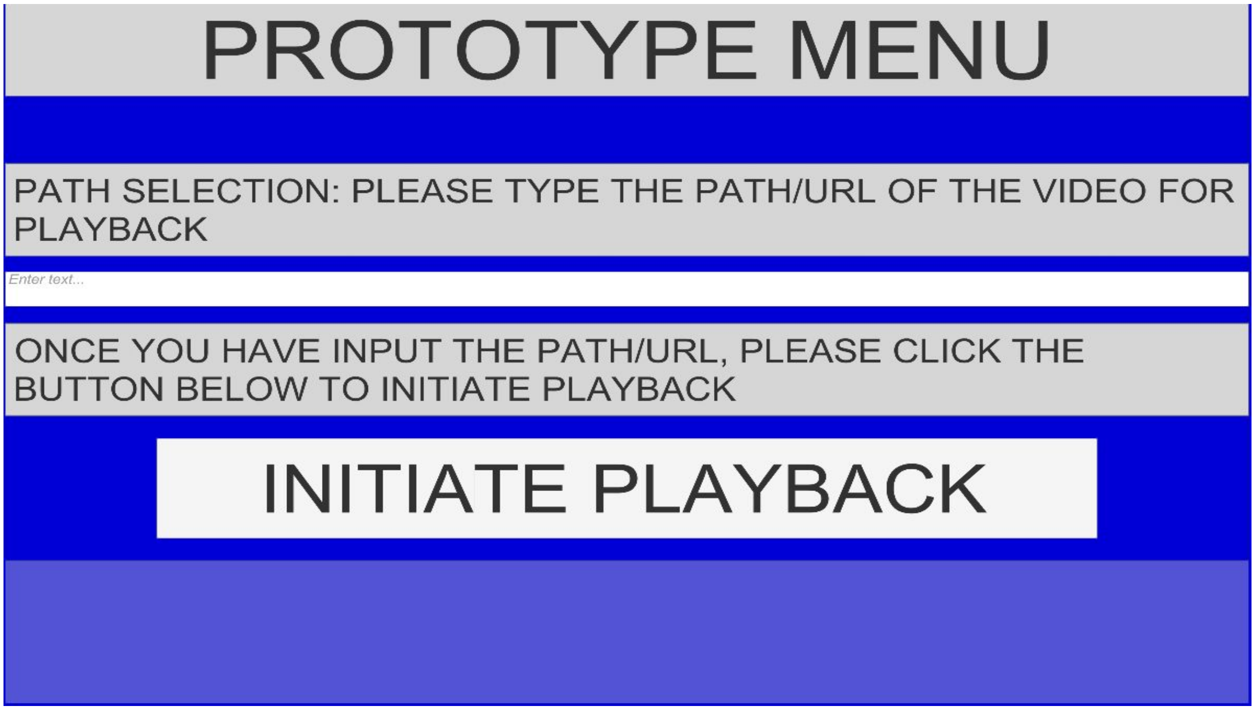
The test will take approximately 10-15 minutes. This is the optimal time to allow the client to get an idea of our project's main design, its features and its characteristics, as well as provide us with feedback. The dependencies of the test are that the client provides the team with feedback and that everyone in the group is prepared and present for the presentation to the client.

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

The results will be provided when the group presents its design to the class and client on Design Day which is November 25. The project's plan development relies on the results of the test. If the results are negative then the team may need to revise or even change their initial idea or add certain concepts to it that weren't necessary before and if they are positive the group can continue with their plan and add some things as our project develops. At this point, the client's feedback is the most important part.

Figures

Figure 1: Prototype 1 menu



PROTOTYPE MENU

PATH SELECTION: PLEASE TYPE THE PATH/URL OF THE VIDEO FOR PLAYBACK

ONCE YOU HAVE INPUT THE PATH/URL, PLEASE CLICK THE BUTTON BELOW TO INITIATE PLAYBACK