GNG1103 Deliverable F

Prototype I and Customer Feedback

Team 1.2

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# Introduction

In the previous parts of this project, we used the initial client meeting to determine their needs and interpreted them in technical terms. We ranked these interpreted needs in importance from 1 to 5, and used the most important requirements to form our problem statement for this project. This allowed us to come up with design criteria that includes functional and non-functional requirements, as well as constraints. These design criteria helped us identify target specifications for our requirements and we assigned metrics and ways to measure their effectiveness. After identifying our target specifications and our important requirements, we were then able to benchmark our ideas to existing products in the market that relate to our future product and compare our design criteria. We took our design criteria to determine the three subsystems that can allow us to tie together all our concepts into a final conceptual design: the Virtual Environment, the Interaction component, and the Information & Research component that will allow us to promote empathy. Lastly, we developed a detailed design, a Bill off Materials, and a list of equipment. We identified project risks and how to counteract them, as well as outlined a prototyping test plan to get us on the right track for this deliverable’s prototyping. In this deliverable, we will outline the feedback we received following the second client meeting in order to improve the empathy aspect of our project. This will make way for us to build our environment around a more empathetic component. To do this, we will document our prototyping test plan, analysis, and results. Our first prototype will have a focus on developing an empathy component that can convey emotion, as well as building a part of the virtual environment that helps convey that message of putting one in other people’s shoes. We will also be outlining our test plan for prototype II.

# Second Client Meeting Feedback Outline

* Focus more on empathy component, as this is the most critical part of the project
  + One way to promote empathy could be through a storyline
* Experience should allow people to try the struggle of people with physical disabilities and see how hard it is
* This can be achieved by seeking constant feedback from others to see what makes people feel empathy and what doesn’t
* Shift focus to identifying the barriers in the environment we wish to work with and finding out how these barriers affect people with disabilities on an emotional level
  + This will be helpful since emotion in stories is often used to promote empathy

# Analysis of Critical Components

## List of Critical components:

### The Camera Code

This component allows movement through virtual space. This component allows the empathetic device to explore the different possibilities in the space.

### The Virtual Space

This component allows the empathetic device to be rooted in the experience. This component needs to be done well to allow the other devices to fulfill their goals well.

### Empathetic Device

This component is a layer that will take the other components, which are more technical, and tie them together to make an experience that will allow the user to put themselves in the shoes of a physically limited person.

# Prototype Documentation

The code used for this first prototype is in the first appendix. Images from the model test space made with Unity can be found in the second appendix. In this prototype, we aimed to make a model of the area we wished to explore with our project. To add to this, we came up with a plan of how barriers are in effect in this area and what might stop someone with a physical disability from being able to access areas. This prototype allows us to move forward with more detailed plans for the next prototype.

# Prototype II Outline

## Objective

Our objective is to create a story that will help touch a large audience and allow them to feel sympathy for the visibly disabled through our experience.

## Stopping Criteria

We will know that the story is on the right track when we feel that it reaches our audience and clearly conveys our message of being aware of the hardships that people with visible disabilities face on a day-to-day basis. We will test the story by showcasing it to multiple people and asking for their opinions on whether they sympathize with the character of our story.

## Fidelity

The story and the character(s) we create for this prototype will probably be what we use for the final release, with some room for minor changes of details and plot points.

# Conclusion

In conclusion, we have been able to outline the feedback from the second client meeting and reflect on it. This allowed us to analyze the critical components of this prototype: the camera code, the virtual space, and empathetic device. These components helped us create a model of an area we wished to explore in our project. Adding on to that, we identified how barriers in this area are in effect, what might reduce accessibility to this area for someone with a physical disability, and why this can leave them feeling neglected and left out. We are utilizing this emotional side of these situations to promote empathy through a narrative that allows the user to truly feel as if they are in the shoes of someone with a physical disability. Finally, we developed a prototyping test plan by identifying the objective for our second prototype, our stopping criteria, and the level of fidelity that we will aim for.

# Wrike Snapshot

<https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=2OFLEm3sN7q2bxJnfwTo0SShnF7lvudX%7CIE2DSNZVHA2DELSTGIYA>

# Appendix

## Appendix I: 1st iteration of the camera view code

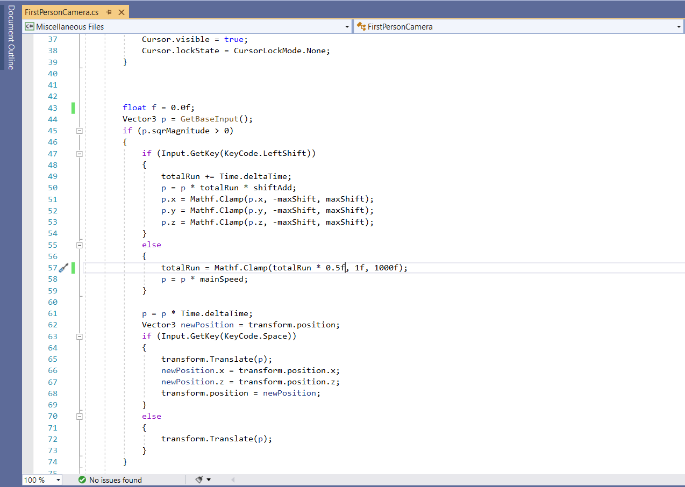
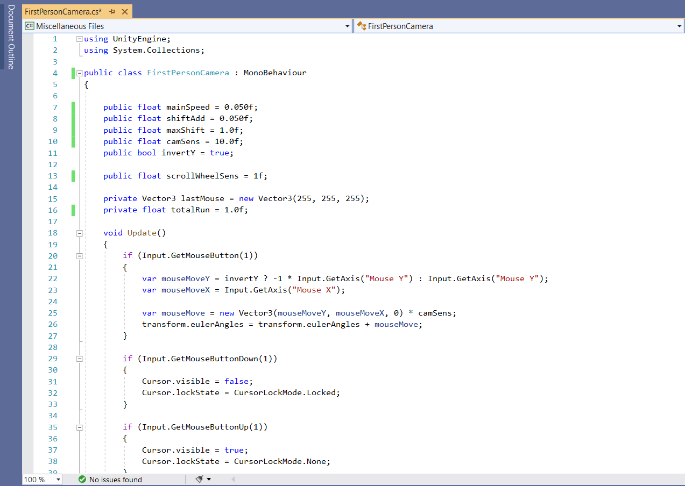
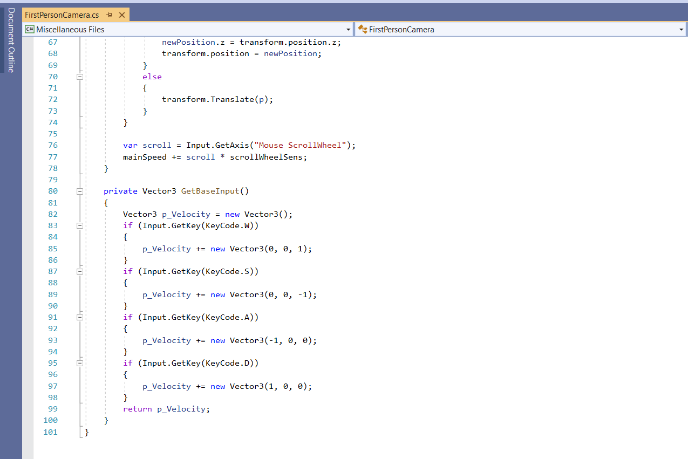


Figure : 1st Iteration of the Camera View Code

## Appendix II: Images of the Prototype Model

电脑的截图

描述已自动生成

电脑的屏幕截图

描述已自动生成

电脑的屏幕截图

描述已自动生成电脑的截图

描述已自动生成

Figure 2: Images of the Prototype Model