Deliverable F – Prototype I & Client Feedback

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Abstract

This deliverable will outline our first prototype and give a detailed analysis of its different components. Additionally, client feedback will be included and an analysis of said feedback completed. Furthermore, a detailed prototype plan for our second prototype will be included at the end of the deliverable along with an updated bill of materials and target specifications.

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Client Feedback, Interpretations, and Implementation

Feedback	Interpretation	Implementation
Do not use real life examples.	N/A	We will not use real life examples to draw similarities
Avoid triggering the audience.	Avoid fear or panic inducing content.	We will not show guns, robots, explicit gore etc.
Keep it simple.	Think of it more as a movie rather than a game.	We will keep the story linear and simplify user interaction as much as we can.
Do not pull "all-nighters."	Reduce the amount of content.	We will focus first on the main story and video, and secondly on detailing.

Prototype I (Information)

Why?

The purpose of this prototype is to gauge the general flow and story of the experience. We will figure out how exactly we can pace and integrate all the desired information into our story.

What?

Prototype I is a story board of detailed drawings demonstrating the various scenes we plan to implement for our story. It includes important task-related components as well as storytelling details. Task-related components involve objects the user interacts with to progress through the experience (Telephones, doors, links between levels, functional objects). Storytelling details are functional or nonfunctional objects that give the user more information about the world (boarded up windows, garbage and dirty environments, propaganda posters, etc.)

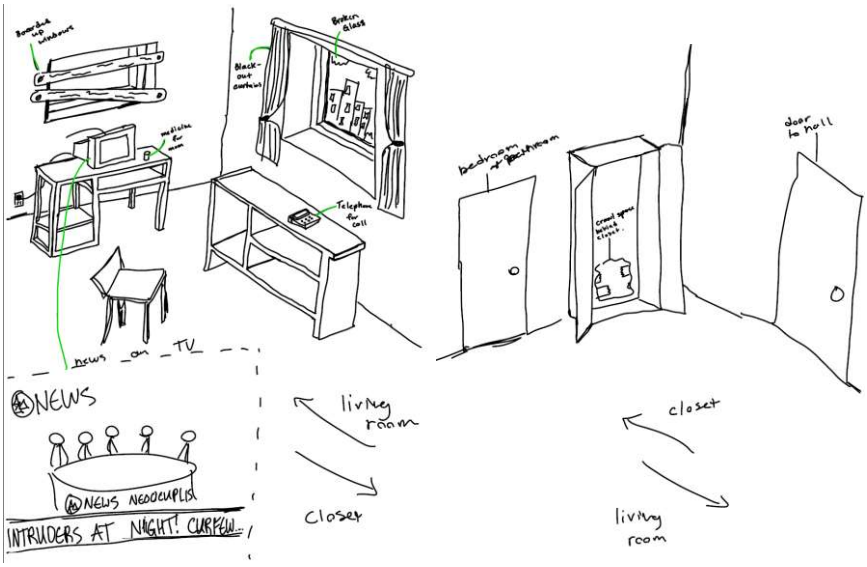
When?

This prototype has been developed to validate the concept of our story and to serve as a guide for making decisions during the initial stages of the project design process. This prototype will be upgraded to different versions as the project progresses.

Prototype I

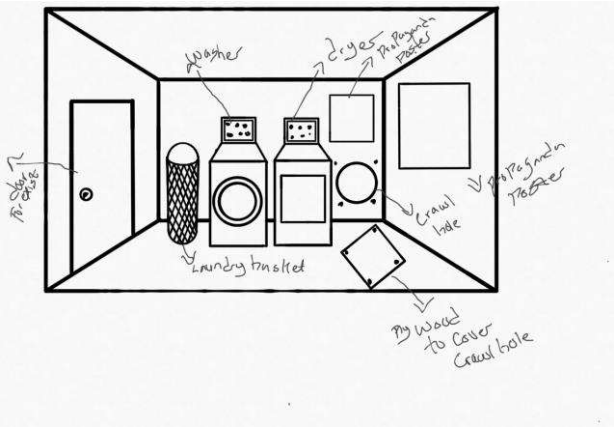
Apartment - Scene 1 - Erfun:

The scene opens with the user watching the news. The television will inform the user about the current state of their situation. The user's mother will call them from the phone to the right wall. User answers the phone in front of the window. The mother character will tell the user that she is sick and is not feeling well. This will prompt the user to leave the apartment with medicine. At this point a curfew warning will play over the news as the user picks up the medicine. The user will then leave the apartment through a crawlspace in the closet behind them.



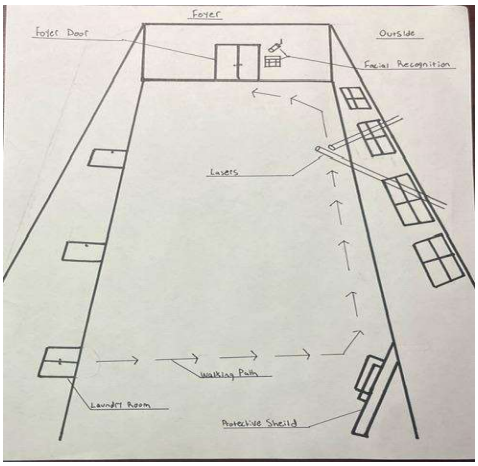
Laundry Room – Scene 2 - Mercy:

The user exits the crawl space into the laundry room. There is no designated task in this room, however there will be propaganda posters and lockdown guidelines for the user to interact with and learn from. These posters will provide more information about the world and what has changed. The user exits the room through the hallway door.



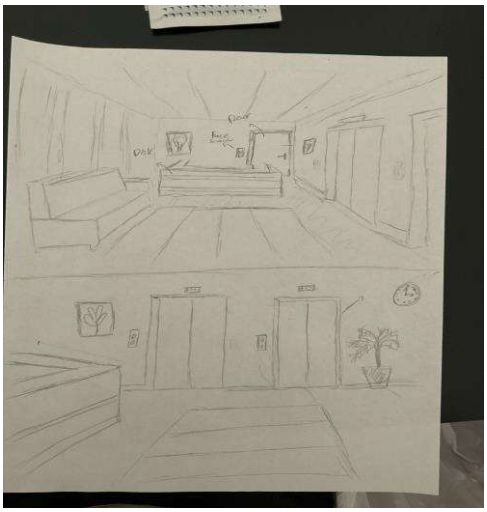
Hallway – Scene 3 - Lane:

The user will enter a long hallway; at the end of the hallway is the door to the main lobby. Along the side of the hallway, there are windows with lasers pointing through. There will be lasers coming out of each window. The user will use a sheet of plywood with handles to cover himself and move past each window. At the door, his face will be scanned, and he will be admitted into the lobby.

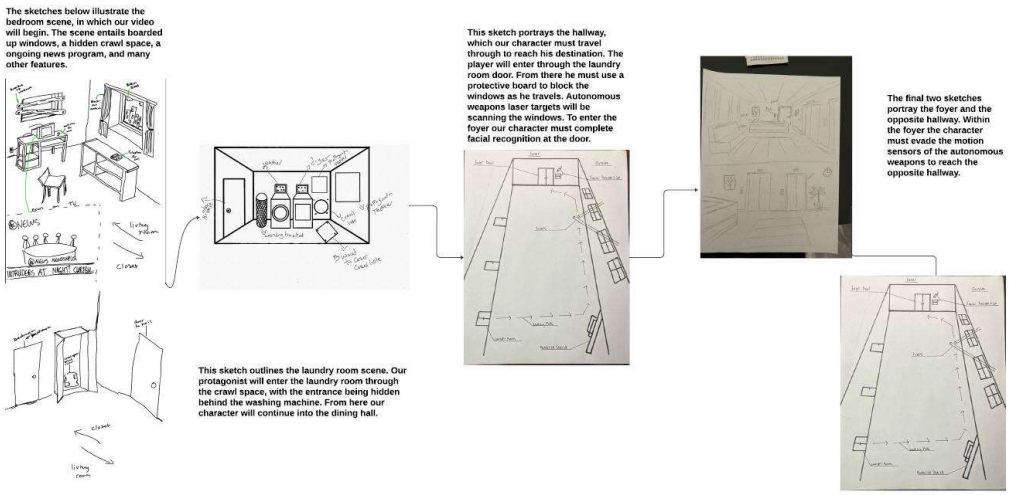


Main lobby – Scene 4 – Abdul-Wahid:

In the main lobby a light will occasionally blind the room, this is meant to be a surveillance drone (The user will never see the drone, only the light). The player traverses through the level, sneaking behind cover to get to the door leading to the mother's wing of the apartment.



Concept Map



Prototype I Analysis

Within engineering analysis a few steps must be taken to analyze the different critical components of our design. Given the current situation some of these steps do not apply. First, no materials were required for the development of this prototype given that it is a preliminary storyboard. Despite this, we still need to confirm that our first prototype is meeting the needs of the client.

	Design Specification	Relation (>, <, =)	Value	Units	Verification
1	Create a real-world environment where lethal autonomous weapons rule.	=	yes	N/A	Testing Final Product
2	Produce a video demonstrating the final product that can be shown to lawmakers	=	yes	N/A	Testing Final Product
3	Emotionally move audience	=	yes	N/A	Testing
4	Demonstrate how civilians would adapt or lives would change under this law.	=	yes	N/A	Testing
5	Tell a story	=	yes	N/A	Testing

Recalling our design criteria, we can now analyze the first prototype and determine whether it is meeting our client's needs.

1. Create a real-world environment where lethal autonomous weapons rule.

- We have developed an environment where civilians are completely controlled by autonomous weapons. Members of society have been stripped of their freedom within our environment and are forced to exist in a world where these weapons rule.
- This is portrayed in the video by our character having to conform to a city-wide curfew despite the dire circumstances of his mother's health.
- By exiting his room after curfew, he is forced to take numerous measures to hide from autonomous weapons scanning his area.
- This was tested in client meeting number 1 when Mines Action Canada agreed that the storyline illustrated an environment ruled by autonomous weapons.
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2. Produce a video demonstrating the final product that can be shown to lawmakers

- Not currently applicable.

3. Emotionally move audience

- By providing the background of our character's mother through the phone call we will accomplish the goal of emotionally moving the audience. His efforts and the safety precautions he must take to simply give his mother vital medication will portray the terrible circumstances of the environment we have created.
- This will evoke empathy among the viewers of our video.
- This will be tested at our next client meeting when we can share our updated story board to Mines Action Canada.

4. Demonstrate how civilians would adapt or lives would change under this law.

- We have done this in numerous ways in prototype 1. Our client will progress through his apartment complex demonstrating the ways civilians have adapted to protect themselves from autonomous weapons in their homes.
- Holes in walls, secret crawl spaces, transportable protective shields, and a meticulous placement of furniture to provide hiding places are among the adaptations highlighted within this prototype.
- Many of these measures were tested in our first client meeting and approved.
- The newly developed measures are pending approval in client meeting 2.

5. Tell a story

- This first prototype most certainly tells a story.
- We provide background information for the story through a television news program and a phone call received by our character.
- Both components are pending approval during client meeting 2.

Measurable Results

- Adherence to client's restraints.
    - We will find out if the content is too graphic, includes content the client does not want.
- Emotional Impact
    - Positive feedback on the emotional aspect of the design.
- The client satisfaction and feedback regarding the project
- The cost effectiveness of the prototype
    - This is in terms of the time and money spent on the prototype

Prototype II Test Plan

The purpose of prototype II will be to create the first scene (Apartment).

Why?	The purpose of this prototype is to test how much progress we can make on one scene in four days. We will also be testing the duration of the scene itself as well as basic and more complicated VR functionality.
What?	We will create our first scene in VR using Unity. We will then playtest it and time how long it takes to get through the main objective (Receiving call, grabbing medication, and leaving.) as well as if we can comfortably move around the room (appropriate movement speed). And if the objectives and scene progress properly.
When?	We hope to have mostly produced this prototype in four days by the time of our first client meeting. With the development of the level happening in the first two days and the testing and playtesting happening in the last two.

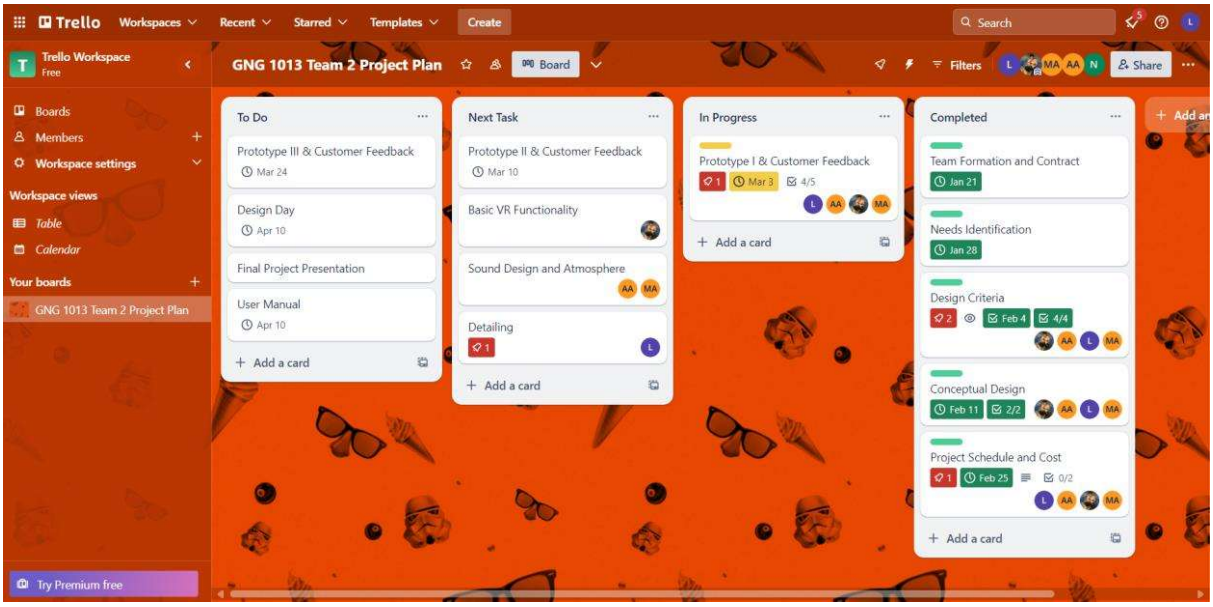
Desired Results

Duration of Scene	Time (s)	~ 60
Basic VR Functionality	N/A	Ability to move around the apartment and not clip through walls and furniture.

Complex VR Functionality	N/A	Ability to interact with story objects (answering phone, opening closet).

The bill of materials will have no update during the development of prototype 1 but there are some points that must be clarified. This prototype would cost about 400$ if buying the headset; Unity is free. In the makerspace there are VR headsets for testing purposes. We have one available to us so testing will be free.

Trello task Board Update



Link: https://trello.com/b/A9O6vj6r/gng-1013-team-2-project-plan