

Project Deliverable G

Prototype II and Customer Feedback

Team 1

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Abstract

The document outlines the creation of our second prototype, the testing process, and the gathering of feedback from potential users. A careful analysis of our second prototype leads us to cater for a test plan for our next prototype and amending changes where necessary.

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1 Introduction

This document showcases our second prototype, which improves upon the first by using feedback from our clients and other people and including other subsystems not included in the first prototype. It also includes how we plan on testing the success of our prototype, our stopping criterion, and our results, as well as images (poster designs and unity screenshots) and feedback on how the prototype looks. Using this feedback, we updated our target specifications, detailed design and BOM. We finally included a test pan for our third prototype.

2 Prototype II

2.1 Prototype II Test Plan

The goal of this test plan is to analyze more specific subsystems that we established at the beginning of the deliverables and assess how they fit into the second prototype of our VR game. This test plan does not represent the entire project but rather a part of our VR game. Its purpose is to ensure that the added subsystems are well functional in our VR environment.

On the right side of the table, there is a result scale where everything in green indicates that the test objective has been successfully met to expectations, everything in yellow indicates successful accomplishment close to expectations, and red indicates that we have not yet had the chance to successfully accomplish these test objectives.

ID	Test Objective (Why)	Description of Prototype used and of Basic Test Method (What)	Description of Results to be Recorded and how these results will be used (How)	Estimated Test duration (When)	Stopping criterion	Results
1	Analyse critical subsystem: Poster on the wall, dog, broken glass on the floor, windows.	Analytical, Specific	-Poster is readable and not too messy for the eyes -Poster is in two languages -Dog looks distress and makes sounds of fear. - Broken glass has sounds attached to it – shattering sounds. - window fits perfectly and there is a picture showing the outside world to the users.	20 min	Satisfies design scale	Partially achieved Posters are fine, not all are bilingual Dog makes sounds of distress Glass shatters, no sound Only steel bars for window
2	Analyse critical subsystem: Background music	Analytical, Specific	Fearful music playing in the background	20 min	Satisfies design scale	In progress

3	Verify feasibility: Camera movement and dizziness effect	Analytical, Specific	Users does not feel dizzy after entering the simulation.	20 min	Satisfies design scale	Not yet done Roll rotation not limited yet
4	Analyse critical subsystem: Video on the television - about AW warnings.	Analytical, Specific	Video is audible and plays only when the camera is facing the TV, stops playing when the camera leaves the screen	20 min	Satisfies design scale	Partially achieved Video player works
5	Analyse critical subsystem: Subtitles for the video in both official languages (FR and EN)	Analytical, Specific	The message is clear and follows the video.	20 min	Satisfies design scale	Held Not started yet
6	Communicating and Getting Feedback: Friends	Physical, Comprehensive	Feedback/ideas Improvement suggestions	20 mins	2-3 times	Successful
7	Communicating and Getting Feedback: TA	Physical, Comprehensive	Feedback/ideas Improvement suggestions	20 mins	Until suggestions implemented	Successful

2.2 Analysis of concepts (Prototype II)

Broken glass on the floor:

This concept is used to show how people are afraid of making little noises due to the threat of the Autonomous Weapons. In the VR environment after the user walks pasts the glass and it shatters onto the floor the user should feel a sense of danger to show the AW might have heard them.

Windows:

Due to the window not being perfected in prototype 1 we have included it in our test plan and analysis for prototype 2.

Background music:

We used our background music to help set the atmosphere for our VR environment. This music helps convey the seriousness and danger of the situation.

Camera movement and dizziness effect:

To meet our inclusivity criteria, we need to test how the VR affects its users during and after using the headset. To prevent disorientation, we made our VR environment simple. The VR environment is also made that the viewers can experience it while sitting down or as a video.

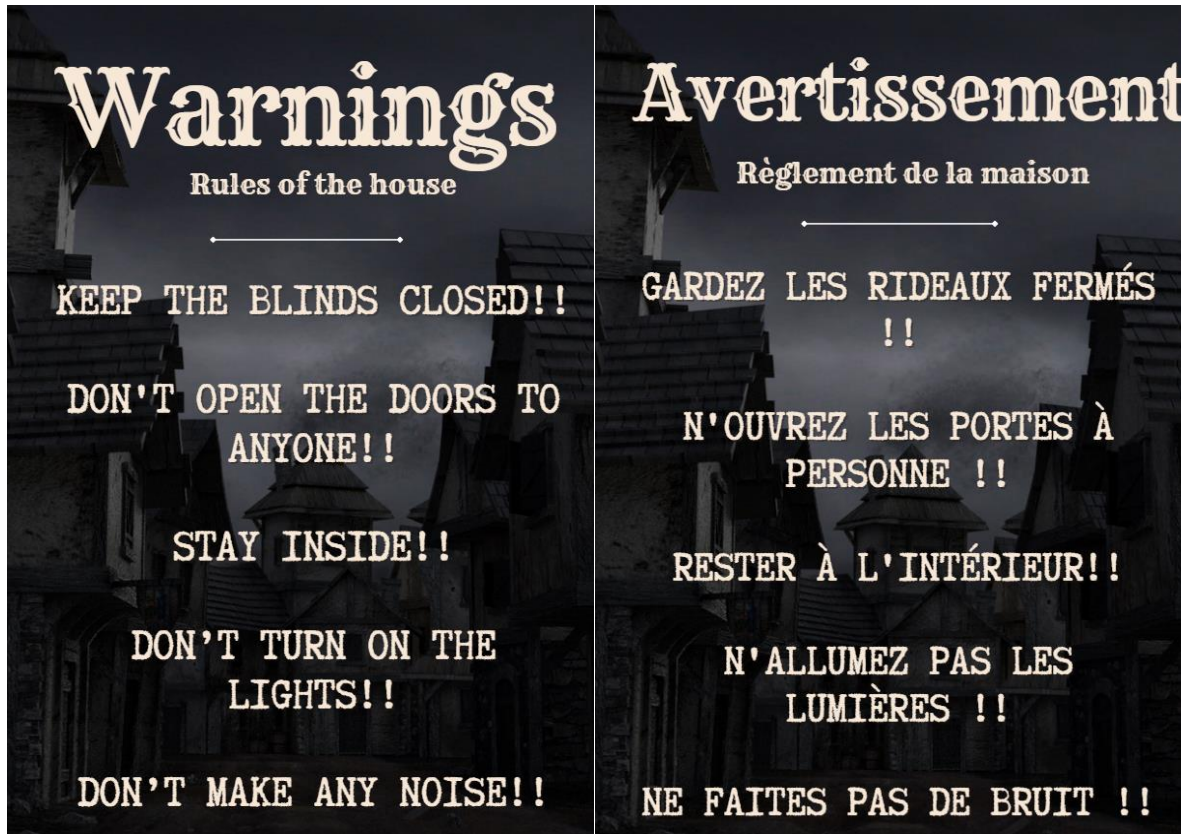
News broadcast (Script):

Welcome back, fellow listeners. We bring you more devastating news. ~~Once again, our city has been attacked by our own creations. They no longer protect us; instead, they kill, hunt, and destroy. Hide from the light, keep your people inside, avoid outdoor trips.~~ Yesterday alone, the city saw a record number of accidental deaths from our drones. Families with disabled children more specifically were spared, they were treated as threats. Funerals are impossible; grief must be done at home. The military forces are searching for more victims. Autonomous weapons are uncontrollable; there is no stopping them. Stay home, close your windows, your doors, your curtains. Protect your family. Stay safe everyone!

2.3 Prototype II Images



2.3.1 Posters in FR and EN





2.4 Feedback

Source	Feedback Received	Reflection
1) Presentation- March 5	Great visual and Audio presentation	During the brainstorming, we understood that some people are visual learners; hence, showcasing a video in our presentation would catch everyone's attention.
	Story line was clear and throughout	At the beginning of this project, we had 6 ideas that we brainstormed and picked the one that would be the simplest but also the best solution for the problem at hand.
	Most presenter didn't speak loudly	This resulted due to the technical issue that we faced during the presentation, if we had a microphone, our voices would have been clear and loudly heard.

	Not enough explanation on why certain object were incorporated	We planned to explain this point during conclusion, however, due to the addressed technical issue, we didn't have enough time to conclude our points.
	Presentation was very quiet, but unity video was great	After the microphone stopped working, we started losing the morale and the confidence to keep going while engaging the crowd, but it is a lesson we learnt, and we will do better next time regardless of the situation.
Professor	I like the dog, its whines add tension to the scene, the posters and including elements showing that children live here.	It enables an individual to feel concerned with the situation and relate to it.
	The blinds are not inclusive.	Not all countries use blinds, we were suggested to use curtains instead.
	The room is not affected by autonomous weapons, maybe add bullet holes and peeled plasters.	Our scene depicts a proper living room unaffected by autonomous weapons, we plan to implement this in our future prototypes.
	The posters are on the wall, but the sandbags make me think that the walls is prone to be destroyed, so the posters will be gone as well.	We did not see this drawback; we were suggested to put the posters on the sandbags.
	Explanations of the features present on clicking.	Beneficial to enhance understanding of the elements present.
	What are those white lines? Not everyone has experienced being in a VR environment.	We assumed that people would know and that was a mistake from our part, we will make sure to explain this when presenting next time.
	Body language while presenting.	To grab the attention of the one listening to our presentation.
	More bullet points, sentences look fuzzy at a distance.	That is a significant detail, we will address in our future prototypes.

3 Updated Target Specifications

No updates were made to the target specifications.

4 Updated Target Detailed Design

No updates were made to the detailed Design plan.

5 Updated Target BOM

Item	Links	Price
<u>Digital unity textures</u>		
18 high resolution wall textures	https://assetstore.unity.com/packages/2d/textures-materials/brick/18-high-resolution-wall-textures-12567	\$ -
Wooden Floor Materials	https://assetstore.unity.com/packages/2d/textures-materials/wood/wooden-floor-materials-150564	\$ -
<u>Digital unity assets</u>		
5 animated voxel animals*	https://assetstore.unity.com/packages/3d/characters/animations/5-animated-voxel-animals-145754	\$ -
Apartment Kit	https://assetstore.unity.com/packages/3d/environments/apartment-kit-124055	\$ -
Ceiling Fan	https://assetstore.unity.com/packages/3d/props/tim-s-assets-old-ceiling-fan-103789	\$ -
Free Rug Pack	https://assetstore.unity.com/packages/3d/props/interior/free-rug-pack-118178	\$ -
Husky dog	https://assetstore.unity.com/packages/3d/characters/animations/husky-dog-160906	\$ 9.99
Realistic Sandbags	https://assetstore.unity.com/packages/3d/props/exterior/realistic-sandbags-95964	\$ -
Steel Window	https://assetstore.unity.com/packages/3d/props/industrial/steel-window-650	\$ -
TV set	https://assetstore.unity.com/packages/3d/props/electronics/tv-set-26193	\$ -
Fire extinguisher	https://assetstore.unity.com/packages/3d/props/fire-extinguisher-21147	\$ -
Baby bottle	https://assetstore.unity.com/?q=feeding%20baby&orderBy=1	\$ 4.99
Dog cage	https://assetstore.unity.com/packages/3d/props/interior/small-pet-clutter-153721	\$ 6.99
Children Toys	https://assetstore.unity.com/packages/3d/props/children-s-wooden-toys-baby-toys-pack-97471	\$ 4.99
Bullet holes	https://assetstore.unity.com/packages/2d/textures-materials/bullet-holes-7950	\$ 4.99
Plush bears	https://assetstore.unity.com/packages/3d/characters/plush-bears-122158	\$ 4.99
<u>Applications</u>		
Audacity		\$ -
Canva		\$ -
GitHub		\$ -
Musescore		\$ -
Unity		\$ -
Free sounds		

Visual Studio		\$ -
Total		\$ 36.94
Maximum		\$ 50.00
Budget available		\$ 13.06

6 Prototype III test plan

ID	Test Objective (Why)	Description of Prototype used and of Basic Test Method (What)	Description of Results to be Recorded and how these results will be used (How)	Estimated Test duration and planned start date (When)	Stopping criterion	Results
1	Analyse Critical subsystem: News channel about AW.	Analytical, Specific	Easy to understand and blend seamlessly with the environment. Informative aspect of VR	(05/03/24)-(10/03/24)	Satisfies design scale, Until deadline	TBD
2	Analyse Critical Subsystem: Dog moving and stop whining on click	Analytical, Specific	Appeal to emotions of users, cause users to feel concerned	(05/03/24) - (10/03/24)	Satisfies design scale, Until deadline	TBD
3	Analyse Critical Subsystem: Sound of glass breaking	Analytical, Specific	Provoke feelings and slightly startle the user	(05/03/24) - (10/03/24)	Satisfies design scale	TBD
4	Analyse Critical Subsystem: Camera Movement, Dizziness	Analytical, Specific	Camera movement should not cause dizziness for users	(05/03/24) - (10/03/24)	Satisfies design scale	TBD
5	Analyse Critical Subsystem: Background music	Analytical, Specific	Implement background music for emotional appeal	(05/03/24) - (10/03/24)	Satisfies design scale	TBD
	Analyse Critical subsystem: Subtitles in English and French	Analytical, Specific	To enhance comprehension of News channel, inclusive approach	(05/03/24)-(10/03/24)	Satisfies design scale, Until deadline	TBD
4	Analyse Critical Subsystem: Elements	Analytical, Specific	Address ethical concerns of autonomous weapons and	(05/03/24)-(10/03/24)	Satisfies design scale,	TBD

	depicting presence of a child. Toys, Scribbles...		appeal to user's empathy.		Until deadline	
5	Analyse Critical Subsystem: Bullet holes	Analytical, Specific	To showcase the effect of unregulated autonomous weapons. To demonstrate the user how autonomous weapons have affected them.	(05/03/24) - (10/03/24)	Satisfies design scale, Until deadline	TBD
6	Analyse Critical Subsystem: Soundproof room	Analytical, Specific	Ensure that noise from this room is muffled. To demonstrate the need to be quiet to the users.	(05/03/24) - (10/03/24)	Satisfies design scale, Until deadline	TBD
6	Communicating and Getting Feedback: Friends	Physical, Comprehensive	Feedback/ideas Improvement suggestions	(09/03/24) - (10/03/24)	2-3 times Until deadline	TBD
7	Communicating and Getting Feedback: TA	Physical, Comprehensive	Feedback/ideas Improvement suggestions	(09/03/24) - (10/03/24)	Until suggestions implemented	TBD

7 Conclusion

In conclusion, Prototype II represents a major advancement in our project development, integrating helpful client feedback from our first meeting and adding essential subsystems to improve the overall user experience. The strict evaluation procedure produced positive results in all important areas, laying the groundwork for the upcoming Prototype III. The thorough feedback we received from the clients and the professor during our third meeting has given us insightful guidance that will help improve both the technical implementations and our presentation next time. As we proceed, the project stays on course, with a clear vision for additional components.

8 References

- Previous Team Deliverables
- Asset store Unity
- GNG 1103 Lectures