Project Deliverable G: **Prototype II and Customer Feedback**

GNG 1103 – Engineering Design

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Abstract

This report focuses on the development of prototype I into prototype II where the team focused on enhancing the environment through additional assets and client feedback from our last meeting.

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Introduction

The purpose of deliverable G is to complete our updated prototype II by expanding on our work from prototype I: additional environmental design aspects, finalized storylines and scene flow, and audio components beginning to be inputted. We also completed successful testing and user reviews of our updated design.

Client Feedback

In our second client meeting and presentation, we introduced our prototype I to the clients, including some visual representations of propaganda, worldbuilding environments such as our classroom, and explained the edited concept. We introduced our protagonist and how the story was going to progress along with the additions we wanted to make through more coding and interface work. We built our world out for the clients and when asked about and concerns or questions the clients had very little feedback to give us. The one question asked was to explain how the propaganda posters tie into our story and what their purpose is. We explained to the clients that we wanted to create a world that hates living with these robots and would try to teach young kids the very same lessons from a young age, hence the propaganda. They didn't give us any critiques other than that, so we decided to progress with a similar idea and prototype for the second iteration.
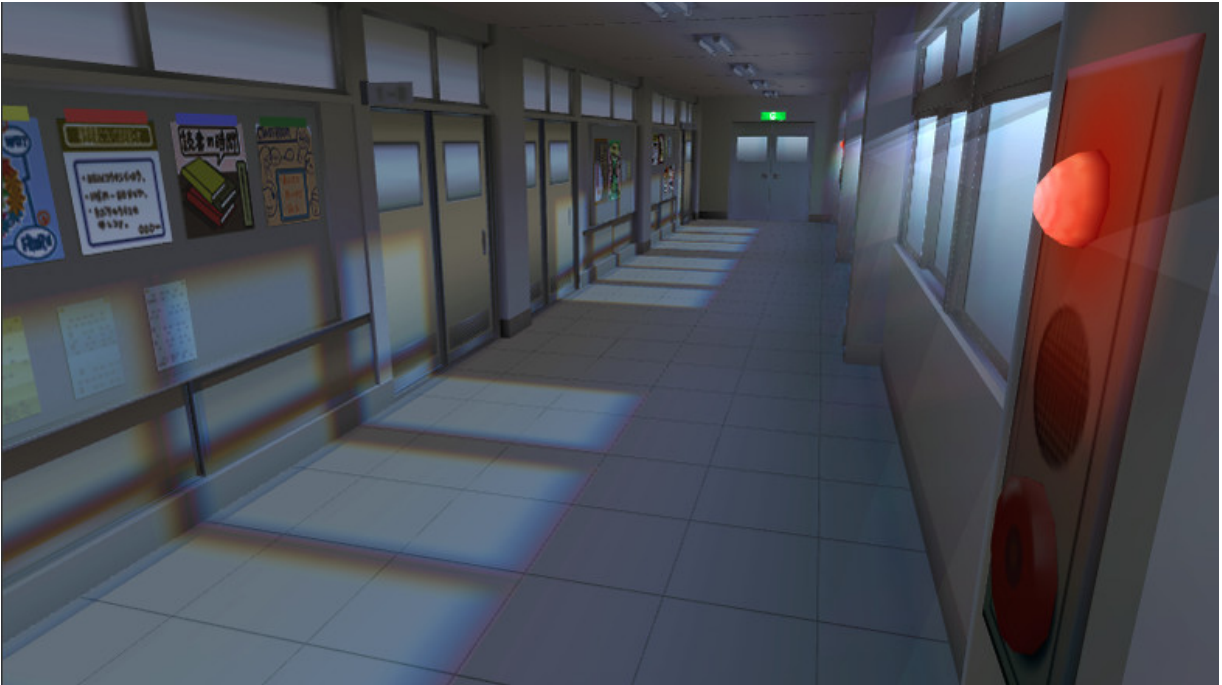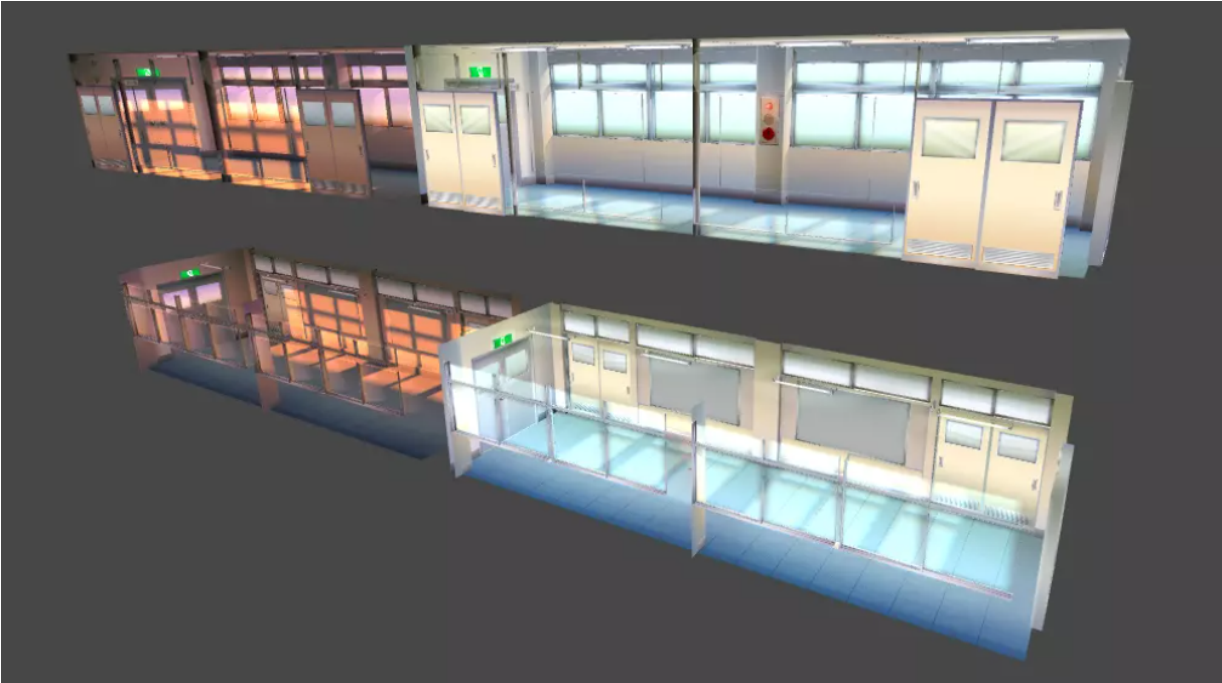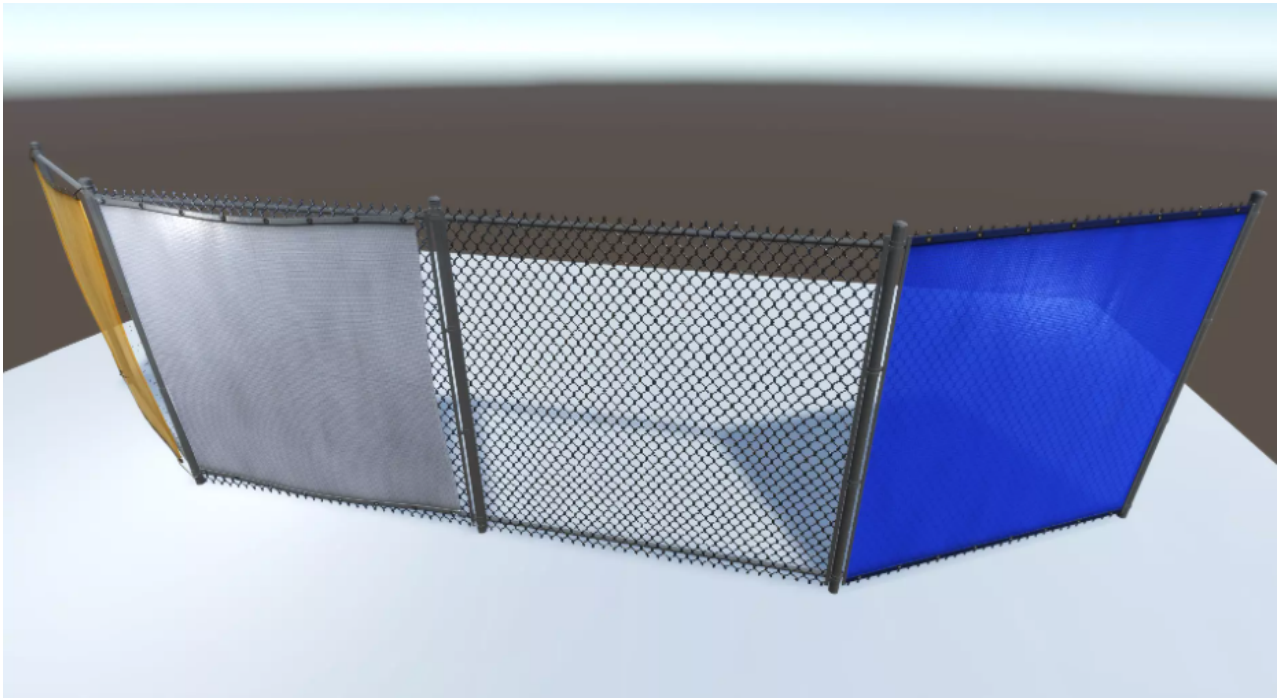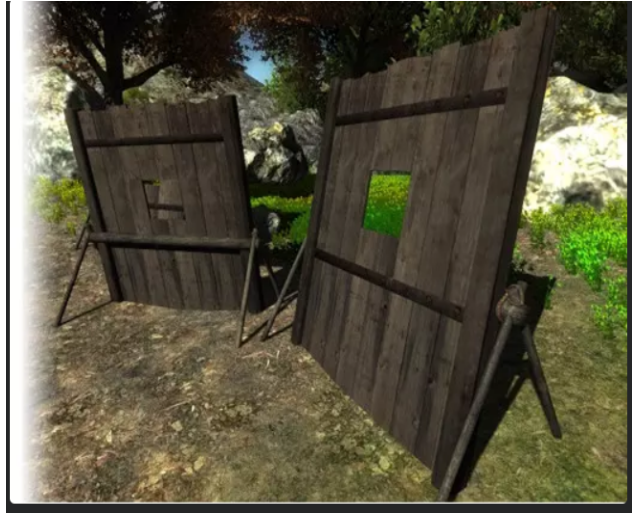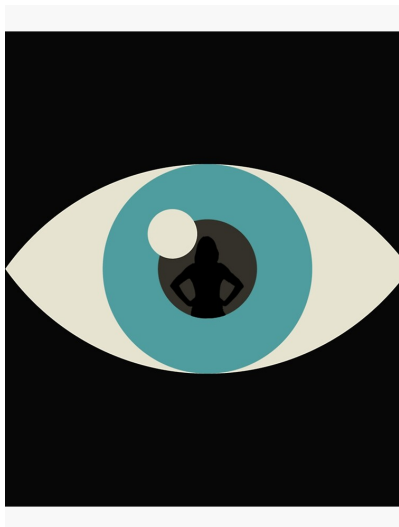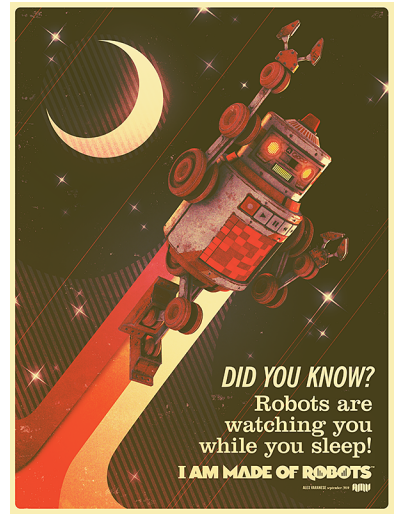
Prototype II

Classroom:

Hallway:

Environmental Additions:
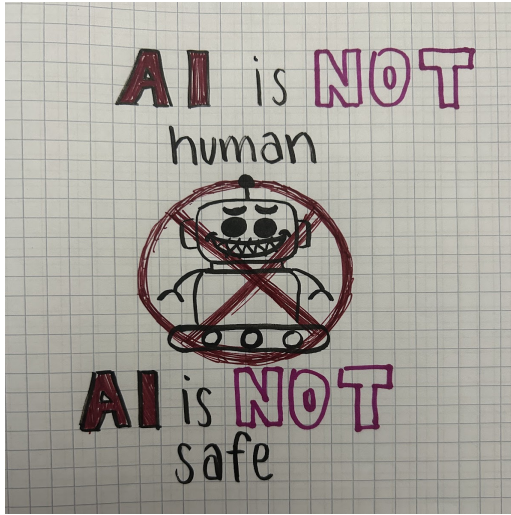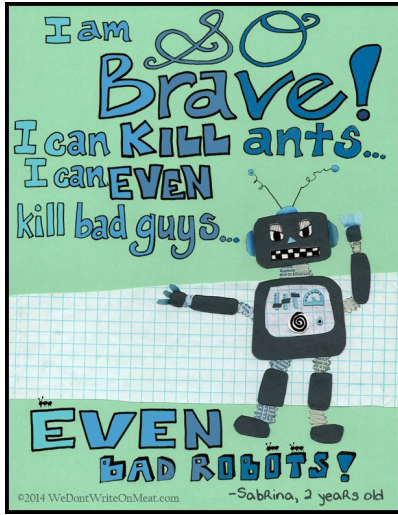
Example of Anti-Robot Propaganda Design (Poster/Handout):

Test Plan and Analysis

Our prototype is a virtual reality clip designed to depict a dystopian future where AI-controlled robots have wreaked havoc on society. Players experience a scene where a parent is picking up their child from school, witnessing the destruction and danger caused by rogue AI.

Prototyping Test Plan:
Objective:

To evaluate the effectiveness and impact of the VR game prototype in conveying the potential dangers of unchecked AI killing capabilities.

Scope:

The prototype will cover a specific scene where a parent picks up their child from a school in a world devastated by AI-driven violence.

Participants:

Target audience: Adults concerned about AI ethics and technology impact and how it affects daily life.

Procedure:

Participants will wear the VR headset and experience the scenario.

Tasks: Observe the environment, interact with elements, and reflect on the potential consequences of uncontrolled AI.

Metrics:

Participant engagement duration.
Number of interactions with the environment.
Participant feedback on the emotional impact.

Prototyping Analysis:
User Feedback:

Look back on client feedback

Observations:

Participant reactions to specific scenes or elements.
Notable user interactions within the VR environment.
Requirements:

Evaluate if the VR prototype effectively communicates the intended message about AI dangers.

Results Documentation:
Quantitative Data:

Average engagement time: 30 seconds - 45 seconds.

Qualitative Data:

Participants expressed heightened concern about AI consequences.
Positive comments on the immersive nature of the VR experience.
Some participants suggested improving certain scenes for a more impactful narrative.

Recommendations:

Look back at client feedback

User Test Feedback

We interviewed 3 people and we made them write what they thought of our second prototype instead of paraphrasing so that we know exactly what to change and what feedback is given directly to us.

1: "I like the addition of more personalized assets throughout, gives a more tailored experience, and also the style environment more believable. My one suggestion for improvement is adding more small assets that make the environment feel as though it's being lived in."

2:" Atmosphere is really good but possibly a little too dark for the user to be able to fully be aware of their surroundings, maybe some more ambient lighting would help the overall scene be more visible."

3:" Something I would like to see is more ambient noises and sounds, as currently it feels somewhat quiet throughout, as though it is completely abandoned which I believe is not the feeling you are trying to achieve."

Updated BOM

Below you will find an updated bill of materials from deliverable F. We have added additional classroom materials and school supplies as well as a variance of tarps..

Item	Link	Cost
HTC Vive	VR headset from university	NA
Unity	3D game engine, student edition	NA
Personal Computer/Laptop	From team members	NA
Old/ Rundown Classroom asset	https://assetstore.unity.com/packages/3d/environments/hq-modular-old-japanese-classroom-149818	$14.99
Wood texture	https://assetstore.unity.com/packages/2d/textures-materials/wood/hand-painted-seamless-wood-texture-vol-6-162145	0$
Wood barricade	https://assetstore.unity.com/packages/3d/environments/wooden-barricade-6734	$4.99
SciFi Sound Effects	https://assetstore.unity.com/packages/audio/sound-fx/sci-fi-sound-effects-36652	$7
Hallway	https://assetstore.unity.com/packages/3d/props/interior/hallway-of-the-japanese-school-model-71393	$10
School supplies	https://assetstore.unity.com/packages/3d/school-supplies-96667	$0
Tarps	https://assetstore.unity.com/packages/2d/textures-materials/chainlink-and-tarp-materials-116269	$6
	Total:	$42.98

Conclusion

In summary, in this deliverable we outlined the feedback we received from the second client meeting and then applied those suggestions to make improvements to our prototype while also gathering outside peerfeedback on those changes to ensure that we are on the right track for design day. We also updated our test plans as well as our BOM, to include the additions we made. We also very importantly performed another analysis for our test to be able to tangibly track our success. We want to continue to add to our design in the upcoming prototype III, such ideas include crouching or hiding movements, background noise of children at recess, and grabbing movements