DOOMSDAY'S END

GNG1103 GROUP 7

TABLE OF CONTENTS

Empathize

Client - Canada's leading disarmament organization with the main goal of upholding international humanitarian law by preventing autonomous weapons entering military and conventional use before the weapons become widely used and regulations become impossible to implement.

User - Lawmakers and Politicians who pass laws and can makes policies on autonomous weapons

Needs - A virtual reality experiences that highlight the dangers of autonomous weapons
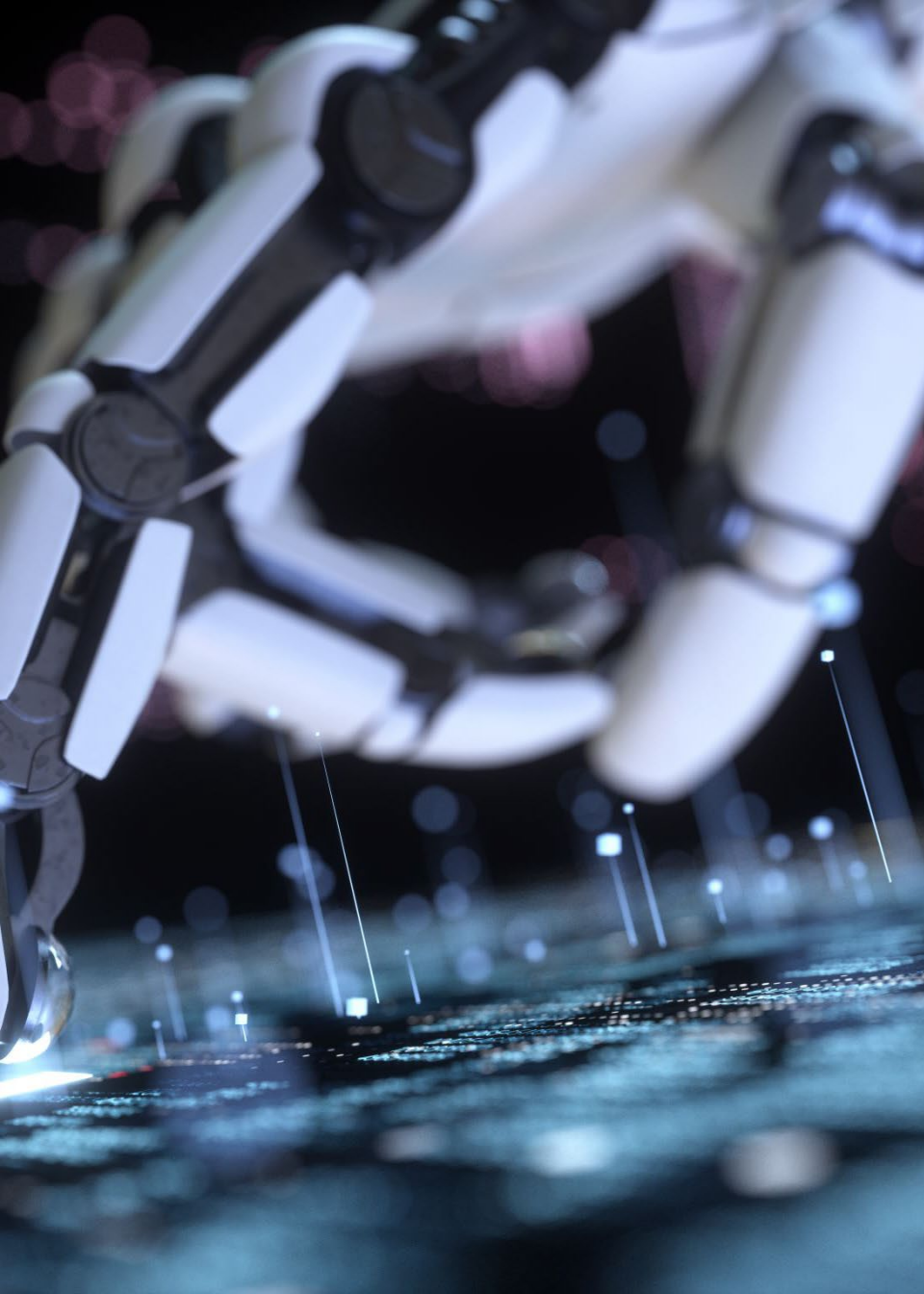
Define

Problem Statement:

Mines Action Canada needs a convincing one-minute video of a realistic VR environment of a future situation that persuades lawmakers to regulate autonomous killer robots by demonstrating ethical and technical problems with autonomous killer weapons.

Design Aspects	Importance (1-5)	G6 - Rust In Peace	JERMs Stop Killer Robots (P8)	G7-Innovation Nation
Duration of video	3	1:30 minutes	~1 minute	~1 minute
Realism	4	Enhanced graphics and effects and great models.	Cartoonish graphics and lack of effects, good models.	Graphics and effects add to realism. Good models.
Soundtrack	2	Subtle music, intended to create suspense. Voiceover and NPCs voiceovers.	No music. Radio sound.	No music, but interactive backgrounds, sounds of robots, children and of radio.
Storytelling	3	Historical context given by a narrator/survivor. Story is layered.	Radio news outlines the brief reminders showcasing the difference in lifestyles. Final statement card.	Radio news highlights the downfall of a school and how things have changed and have gotten worse.
Pg-13 / Stereotypes / Triggers	5	Minor instances of blood, graffiti and propaganda. No stereotypes.	Radio outlines some crimes. No stereotypes.	The VR environment shows blocked windows and abandoned sites. Epilepsy warning.
Cost	4	$50 - assuming it's the same as ours.	$50 - assuming it's the same as ours.	$50 - assuming it's the same as ours.
Background/Environment	3	Extensive background with multiple settings. Not situated in one place.	No background, as windows/doors are blocked. The room is a full VR environment.	The school classroom is the VR environment, and no background designs because of the barricaded windows.

Define: Benchmarking

❑Comparison of several past projects

❑Highlighted some of our most important categories and compared them to similar projects

❑Identified importance of each category

❑Gave a brief description on what each group did

Define: Design Criteria vs Target Specifications

Design Criteria:

Need	Importance (1-5)	Functional / Non-Functional / Constraint	Related design specification
Working VR environment.	4	Functional	N/A
Video that conveys the ethical problems with autonomous weaponry.	5	Non-functional	N/A
Video can convince lawmakers.	4	Non-functional	N/A
Video is emotionally appealing	4	Non-functional	N/A
Video is informative	4	Non-functional	Accuracy of information
A visually appealing environment	4	Non-functional	N/A
Realistic portrayal of a potential future situation.	4	Non-functional	N/A
Video is short	3	Constraint	Duration of video
First person view	4	Functional	N/A
The VR environment is free of bugs or glitches.	3	Functional	N/A
Video is accessible for use.	3	Functional	File format / file size
Visuals that are mindful of people with medical conditions	3	Non-functional	N/A
No graphic elements	3	Non-functional	Content rating
Video abides by copyright law	5	Constraint	N/A

Target Specifications:

Functional Requirements				
Design Specification	**Relation (=,< or >)**	**Value**	**Units**	**Verification Method**
Functioning VR Environment	=	Yes	N/A	**Test, Feedback**
User navigation	=	No	N/A	**Test, Feedback**
User ease	=	Yes	N/A	**Test, Feedback**
Highlight the robot's lack of decision-making prowess.	=	Yes	N/A	**Test, Feedback**
Simulate real-world scenarios by presenting a lifelike environment.	=	Yes	N/A	**Feedback**
Formats compatible with 360° and VR video.	=	Yes	N/A	**Test, Feedback**

Constraints				
Length	=	60	**seconds**	**Test**
Cost	≥	50	**$**	**Test**
Time	=	3	**months**	**Test**

Non-Functional Requirements				
Music	=	Yes	N/A	**Test**
Camera Orientation	=	360°	**Degrees**	**Test/Remodeling**

	Jean	Brian	Seb	Malcolm
Storyline	4	3	2	3
Setting	5	1	3	2
Sound	4	4	4	4
Themes	4	2	3	2
User Interface	2	4	3	3
Total	19	14	15	14

Ideate: Conceptual Design + Idea
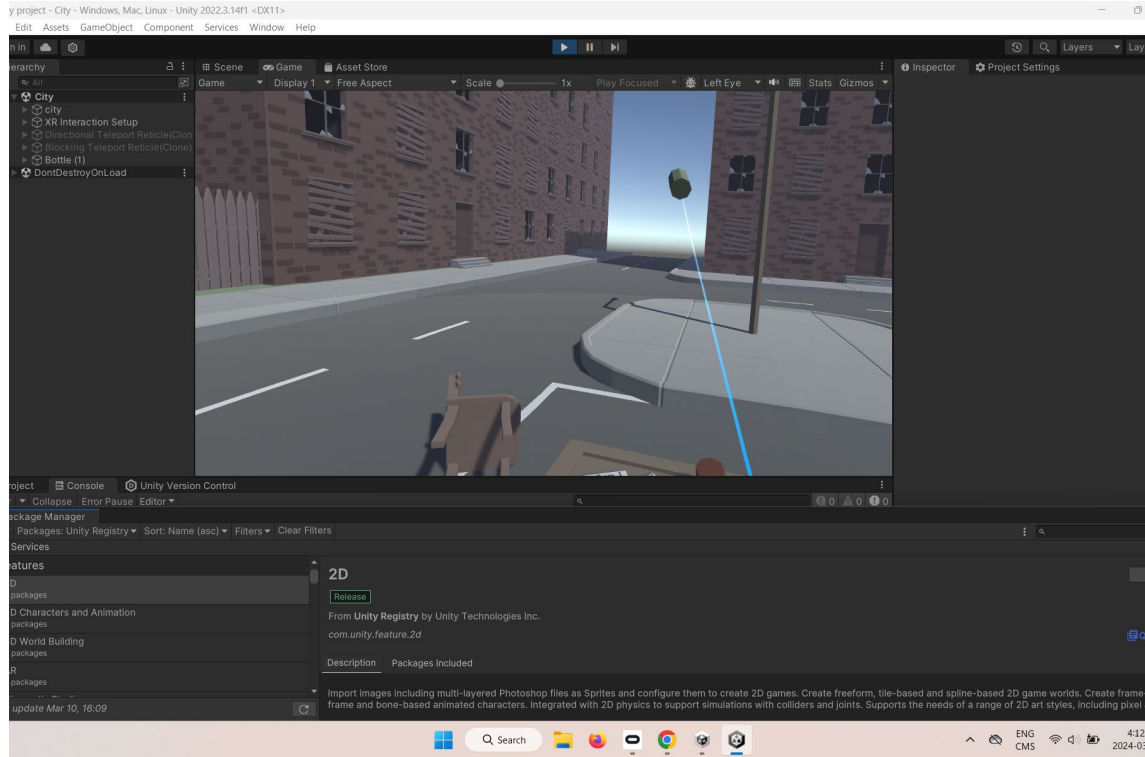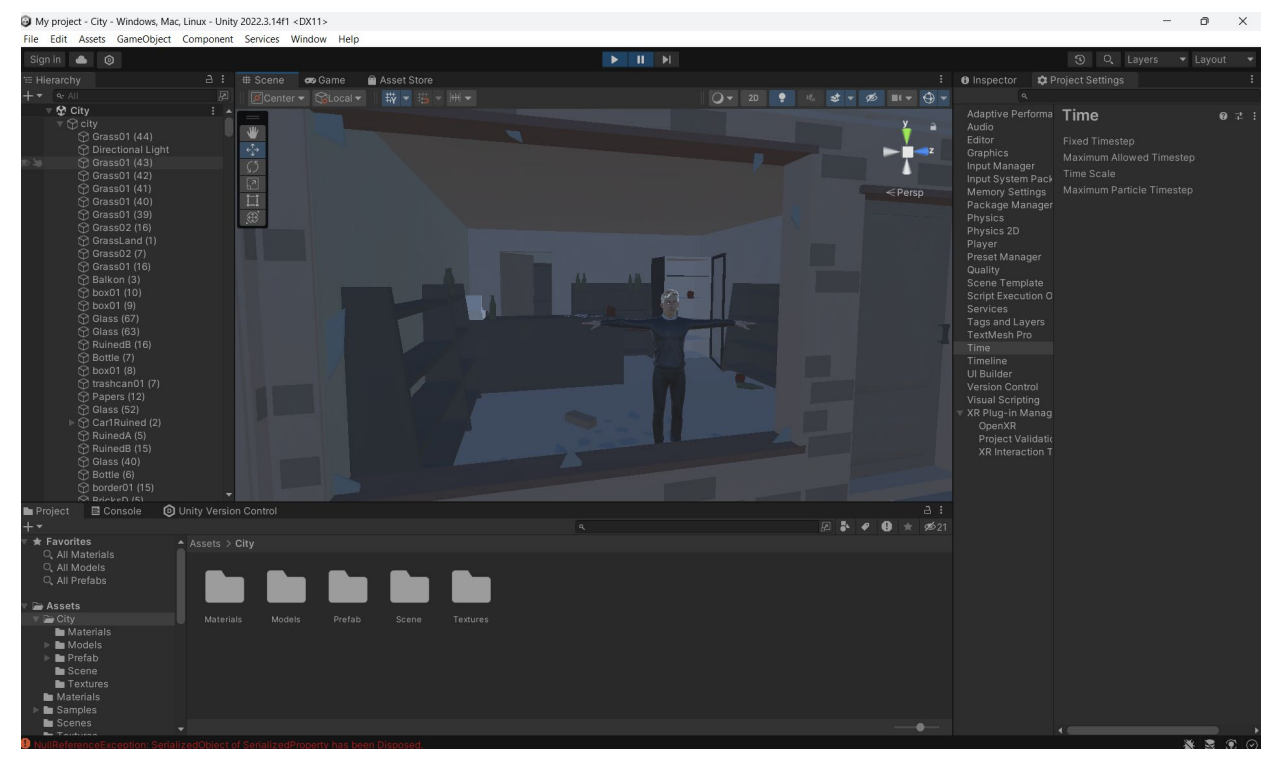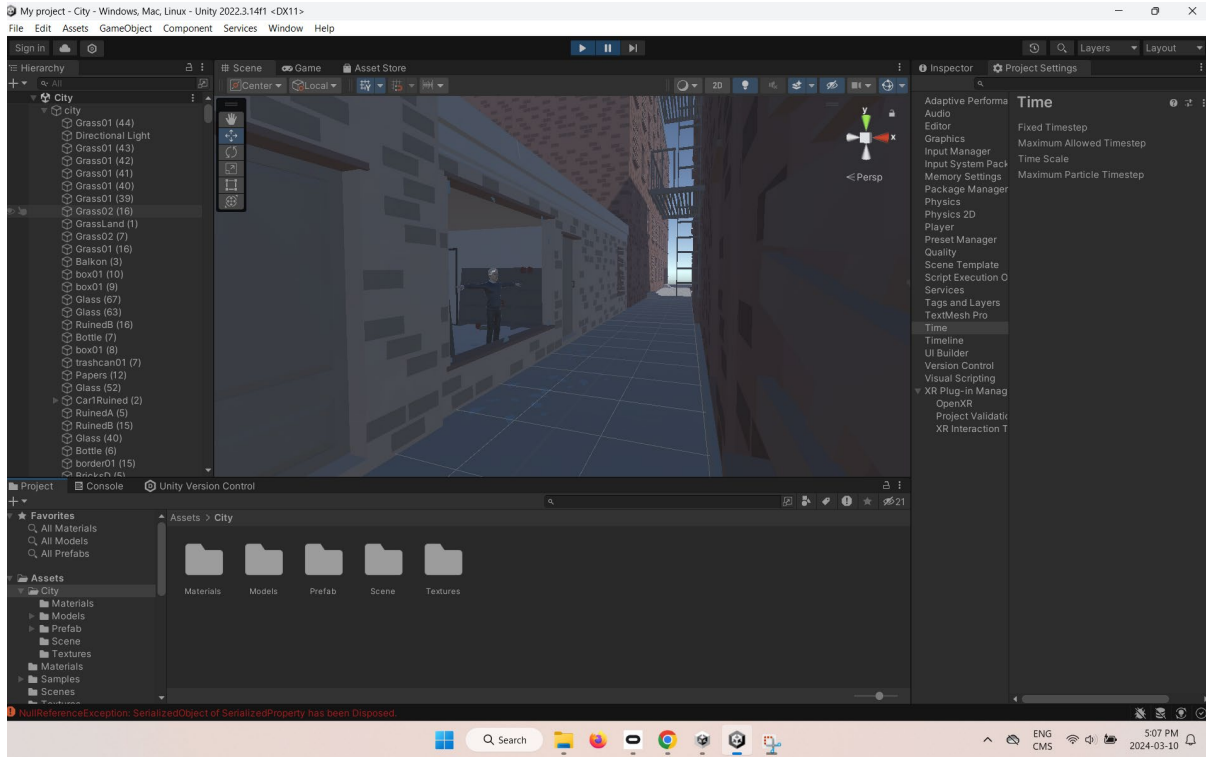
Prototype I

Prototype II
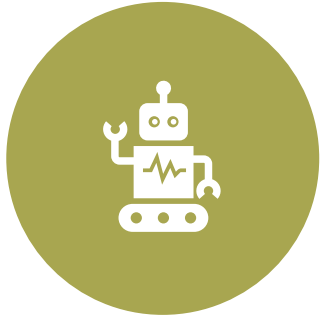
"Make it more specific to killer robots"

Our idea was that too vague and could be replicated with humans and was not specific to autonomous weapons.

"Limit it to one setting"

We initially had 2 settings, an overground room and an underground tunnel system. It was ambitious and we might not have been able to reflect our theme of killer robots well.

Client Feedback
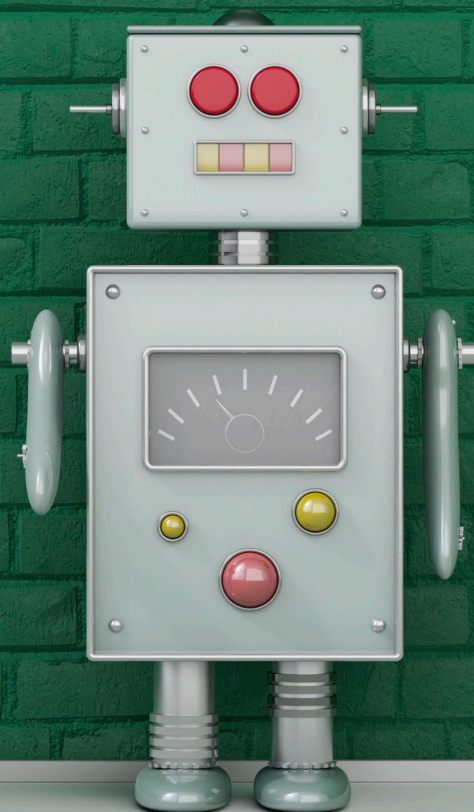
Summary: Challenges and Lessons

We needed to adjust our story, setting and themes to better align with the client needs.

1. Our script did not focus specifically on the robots as being the main issue and did not align with the new setting. We changed our script to be more conversation and theme oriented to better get our point across.

2. We initially had the setting split into 2 different parts one in a house and one underground, but now we should limit it to one. We already bought assets for the overground portion, so we had to focus on creating an environment that was completely overground.
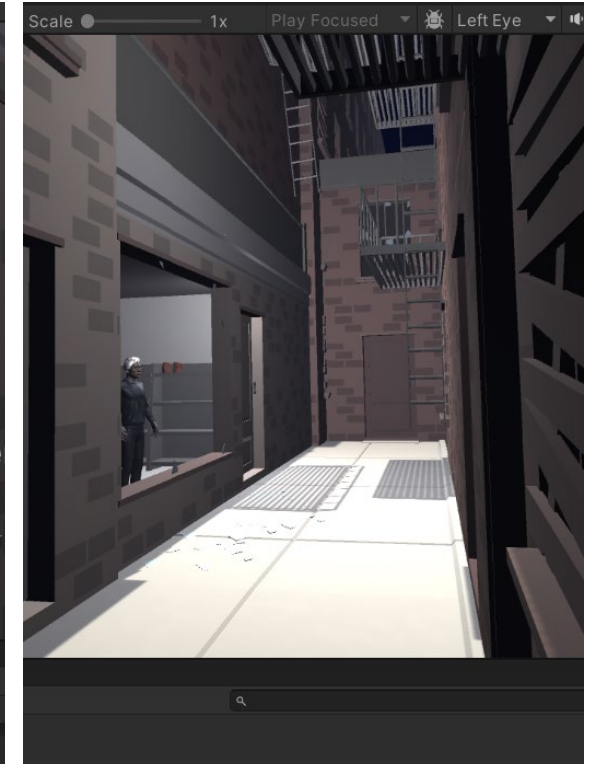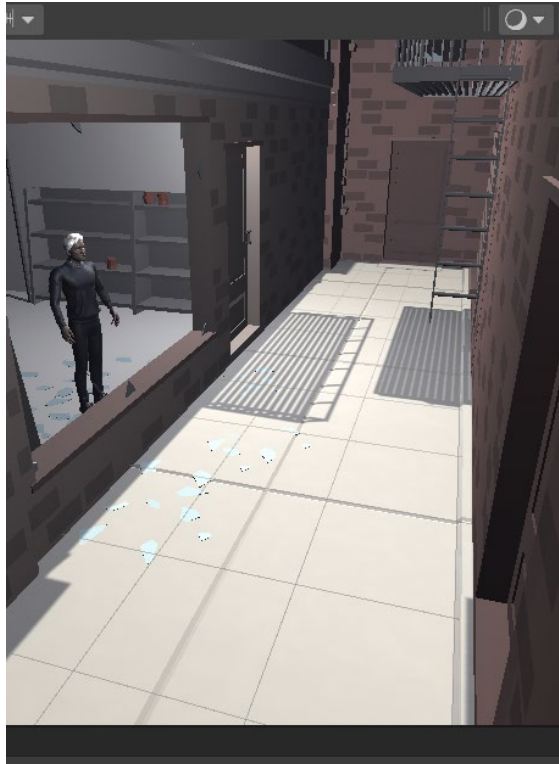
Prototype III Plans

Next Steps
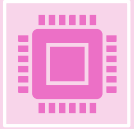
Animations: We need the models to display different and dynamic animations throughout the conversation.

VR Environment: We need to add some final touches to the VR environment like adding propaganda posters and bullet holes.

Voice Acting: We need to record our lines in the game or in post-processing.

ANY QUESTIONS OR COMMENTS?