

# Project Deliverable F

Prototype I and Customer Feedback

GNG 1103 – Engineering Design

Group 13: Reeve Schweiger, Dev Mistry

Due : Sunday, March 3<sup>rd</sup>, 2024

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## Introduction:

The goal of this deliverable is to construct our first prototype based on our chosen idea. By presenting our first prototype we are able to receive feedback from the client on our VR environment and make sure we are on the right track for their needs. Furthermore, the first prototype allows better understand of how the assets and components of our design will be implemented in our VR environment. For this deliverable, we have the prototype objectives, analysis of critical components, photos of our prototype, the clients feedback from the previous meeting, target specifications and a prototyping test plan.

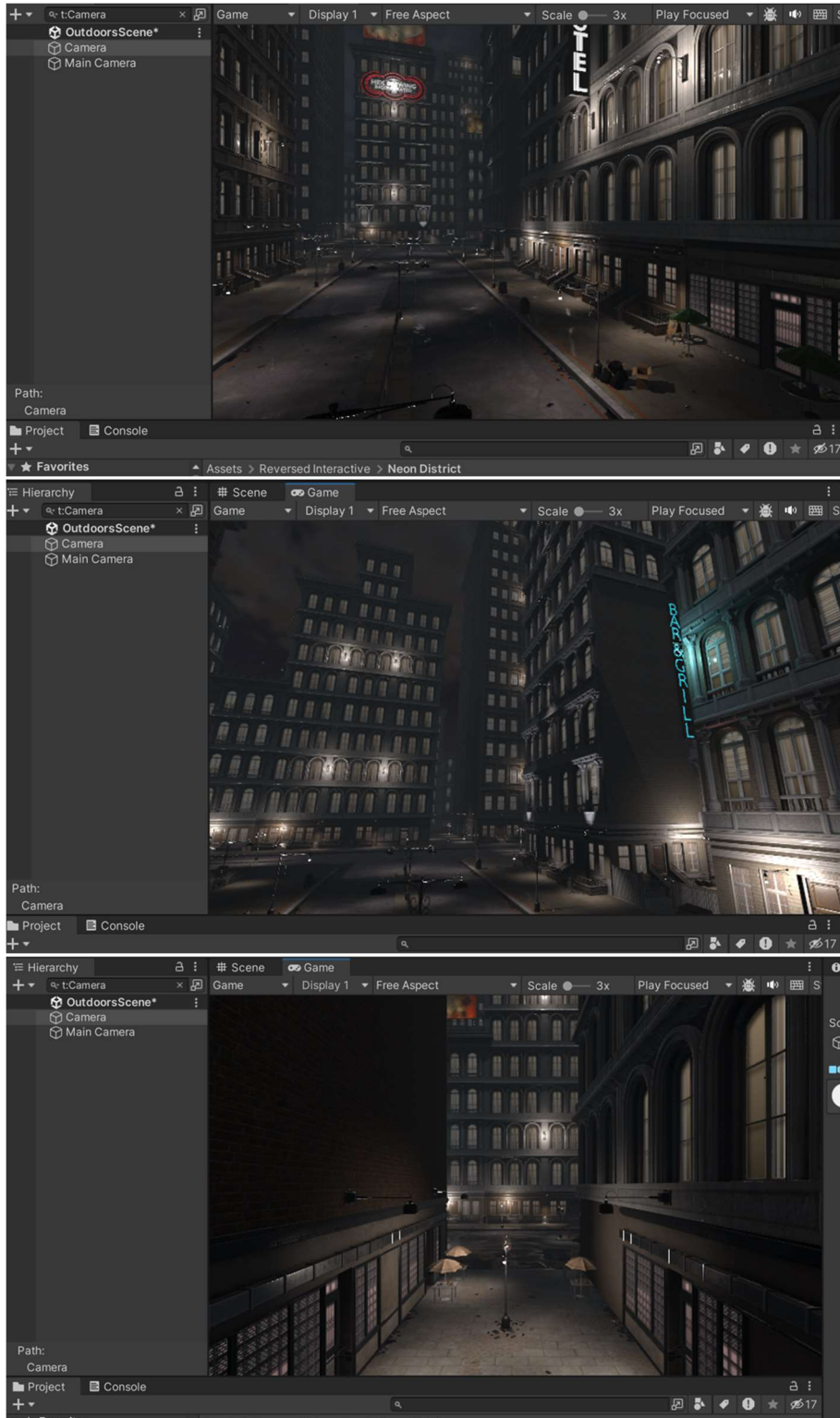
## Prototype objectives:

- Access and purchase unity assets from the unity store
- Upload the purchased assets to the unity environment, and test that all assets are functioning properly
- Ensure all team members are able to access the shared Unity environment and are able to edit the environment.
- Assign tasks to each team members based on their abilities

## Analysis of critical components:

Critical component	Purpose
Tarps/nets	Important asset in the environment to exaggerate how the civilians have had to adjust their environment in order to stay unseen by the autonomous weapons.
Upturn cars	Contributes to the aesthetic of an overrun environment by the autonomous weapons. Displays how the civilians have adjusted in their environment.
Buildings/ basic landscape	Shows the general layout of the environment and allows insight to the client of what type of aesthetic we are trying to implement to effectively display the clients' main concerns.
Camera set up	Gives the capability of the seeing the playable area which will be displayed to the user.  Shows the players which parts of the environment will be used during the video.

# Prototype: (pictures by Dev)



## Bill Of Materials:

	<a href="https://unity.com/success-plans/integrated-success?utm_source=google&amp;utm_medium=cpc&amp;utm_campaign=cc_abm_iss_amer_amer-t1_en_aw_sem-gg_acq_br-pr_2023-05_cc-abm-amer-t1-br_cc3022_ev-br_id:71700000112699686&amp;utm_content=cc_abm_iss_amer_pu_sem_gg_ev-br_pros_x_npd_cpc_kw_sd_all_x_x_courses_id:58700008486337662&amp;utm_term=unity%20tutorial%20course&amp;&amp;&amp;&amp;gad=1&amp;gclid=CjwKCAjwv-2pBhB-EiwAtsQZFPmY5PCIGBarWeAnmJLqRQl6JwCFGMSb6idsw5rJdAnW1vWTG_vkxoCMUM">https://unity.com/success-plans/integrated-success?utm_source=google&amp;utm_medium=cpc&amp;utm_campaign=cc_abm_iss_amer_amer-t1_en_aw_sem-gg_acq_br-pr_2023-05_cc-abm-amer-t1-br_cc3022_ev-br_id:71700000112699686&amp;utm_content=cc_abm_iss_amer_pu_sem_gg_ev-br_pros_x_npd_cpc_kw_sd_all_x_x_courses_id:58700008486337662&amp;utm_term=unity%20tutorial%20course&amp;&amp;&amp;&amp;gad=1&amp;gclid=CjwKCAjwv-2pBhB-EiwAtsQZFPmY5PCIGBarWeAnmJLqRQl6JwCFGMSb6idsw5rJdAnW1vWTG_vkxoCMUM</a>	\$0.0	
1	Unity Software	QAvD_BwE&gclsrc=aw.ds	0
			\$0.0
2	VR Headset	Provided	0
	Neon District	<a href="https://assetstore.unity.com/packages/3d/environments/urban/newgen-neon-district-276031">https://assetstore.unity.com/packages/3d/environments/urban/newgen-neon-district-</a>	\$30.
3	Enviornment	<a href="https://assetstore.unity.com/packages/3d/environments/urban/newgen-neon-district-276031">276031</a>	00
	Single Entity		\$5.0
4	Robot	<a href="https://assetstore.unity.com/packages/3d/props/weapons/acs-114947">https://assetstore.unity.com/packages/3d/props/weapons/acs-114947</a>	0
			\$0.0
5	Lighting	<a href="https://github.com/SlightlyMad/VolumetricLights/">https://github.com/SlightlyMad/VolumetricLights/</a>	0
			\$5.0
6	Destroyed Car	<a href="https://assetstore.unity.com/packages/3d/vehicles/destroyed-car-139331">https://assetstore.unity.com/packages/3d/vehicles/destroyed-car-139331</a>	0
			\$50.
	Total Cost		00
	Total Parts		8

## Client Feedback:

Based on last client meeting out feedback includes:

- Downsizing the playable area of our environment, in order to simplify the workload and putting more time into the narrative of the environment
- Present the environment less like a video game and restrict the ability for the player to choose their moveability and action in the environment.
- Implement the storyline to what happened to the autonomous weapons that led the state of the environment. Make sure the player understands that the risks of the autonomous weapons have come true and the environment have adjusted.

## Prototyping Test Plan:

Test 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)
1.	Determine if interactions of the player are functional	Add different interactable unity assists and test whether the player is able to pick up and interact with the object.	The results will be recorded as a success or failure depending on whether the player is able to interact with the object.	Due: March 10 <sup>th</sup> , 2024 Test should take approximately 20-30 minutes Done by: Benjamin
2	Determine if additional environment assets are functional	Add audios/background sounds in in Unity and test whether they are functional	Results will be recorded as a success or failure depending on whether the	Due: March 10 <sup>th</sup> , 2024 Test should take approximately 10-15 minutes

		within the environment.	audio is functional.	Done by: Dev
3	Test the movability of the player (whether the character is able to move around in any direction)	Within the game mode of unity, test whether the keys associated with movement are functional.	Results will be recorded as a success or failure depending on whether the character is able to move around the playable area.	Due: March 10 <sup>th</sup> , 2024 Test should take approximately 20-30 minutes.  Done by : Keval
4	Determine If all Unity assets are functional within the environment.	Make sure all additional assets such as, the prop cars, nets etc are compatible within the environment.	Results will be recorded as a success or failure depending on whether any defects found were found regarding the props. If the test is a failure more compatible props will be exchanged within the environment.	Due: March 10 <sup>th</sup> , 2024 Test should take approximately 24-35 minutes.  Done by : Reeve
5	Determine if all the code are functional within the environment	Make sure all assets including props audio and player movability are functional in the gameplay function of Unity.	Results will be recorded as a success or failure depending on if all assets, and functions within	Due: March 24 <sup>th</sup> , 20224  Test should take approximately 30 minutes – 1 hour.

			Unity are functional.	Done by Benhamin
7	Testing the emotional response from the client.	Present environment to a group of peers and observe emotional responses	Results will be the observation of the group of peers while in being in the virtual reality. Notes will be the emotions each person evoked. Test will be recorded as success if appropriate emotions were displayed by the group of peers.	Due: March 24 <sup>th</sup> , 2024  Test should take approximately 10-15 minutes  Done by : Reeve
8	Reducing risk and uncertainty of the environment (user testability)	Gather a group of peers to test the functionality of the virtual environment (whether the environment is easy to use)	Results will be notes taken from the group of peers based on their feedback and observed behaviors of the group of peers. Test will be a success if the group of peers are able to easily navigate the environment.	Due: March 24 <sup>th</sup> , 2024  Test should take approximately 10-15 minutes  Done by: Dev



## Conclusion:

Based on the client's feedback to simplify the playable area of our chosen design virtual environment we have modified the environment to start and remain in the one location shown in the prototype photos. Our initial design has been slightly modified based on the list of client feedback from the preliminary meeting. By creating a prototype test plan our group is able to implement specific feature deadlines to ensure that the completion of the project is achieved. We have also documented the analysis of critical components of the design and their importance regarding our vision of the project.