

Project Schedule and Cost

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GNG 1103 Project: “Killer Robots”

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1. Introduction

This document is dedicated to creating a timeline for our project tasks to guarantee that our team delivers all three necessary prototypes on time. Additionally, we will discuss projected expenses and the essential project elements. This will encompass a comprehensive design sketch of our selected idea, an equipment inventory, potential project challenges, and an overview of our prototype testing strategy.

2. Detailed design

After receiving feedback from the client meeting, we took our ideas from our chosen conceptual design and combined these into a single idea. Our simulation will take place in a typical city that has adapted to killer robots which have had problems with their facial recognition software that falsely identifies citizens. The user will walk through the city in a first person point of view and look around to see all of the ways daily life has changed. For example, masks and sunglasses will be worn all around and fog machines will be in use to block the robots' cameras.

Note: Art shown in appendix.

3. Project Plan and Schedule

Number	Task	Dependencies	Owner	Duration	Due Date
1	Deliverable E: Project Plan and Cost	Deliverable D	Everyone	7 days	29/10/2023
2	Build Prototype 1	1	Everyone	6 days	3/11/2023
3	Gather Feedback	2	Everyone	2 days	5/11/2023
4	Deliverable F: Prototype 1 and Customer Feedback	2 & 3	Everyone	7 days	5/11/2023
5	Iterative Prototyping and Prototype 2	3	Everyone	6 days	10/11/2023
6	Customer Feedback for Prototype 2	5	Everyone	2 days	12/11/2023
7	Deliverable G: Prototype 2 and Customer feedback	5 & 6	Everyone	7 days	12/11/2023
8	Iterative Prototyping and Prototype 3	6 & 7	Everyone	8 days	19/11/2023

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9	Customer Feedback for Prototype 3	8	Everyone	2 days	21/11/2023
10	Deliverable H: Prototypes 3 and customer Feedback	8 & 9	Everyone	14 days	26/11/2023
11	Deliverable I: Design Day Presentation Materials	10	Everyone	3 days	29/11/2023
12	Design Day	11	Everyone	Milestone	30/11/2023
13	Deliverable J: Project Presentations	12	Everyone	4 days	TBD
14	Deliverable K: User and Product Manual	13	Everyone	7 days	10/12/2023

4. BOM

Including ones 0\$

Part #	Part name	Description	Quantity	Cost	Extended cost
1	Computers	Provided by team members and the university	5	\$0	\$0
2	Unity software	3D game design engine. Personal license version is used	5	\$0	\$0
3	Oculus Quest VR set	VR set that is provided by the university in the makerLab	1	\$0	\$0
Total					\$0

Note: The bill of the materials is not fixed and might slightly vary in the course of the development.

5. List of equipment

Item name	Description	Type	Prototype #	Source
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Oculus Quest VR set	VR set to test the program/prototype	Equipment	1,2,3	MakerLab
Testing Area	Space needed to test the VR simulation	Test Environment	1,2,3	MakerLab
Test Computers	Powerful computers to test simulation on	Equipment	1,2,3	MakerLab

6. Project risks

In this section, we will outline potential challenges that may arise during the product development process. For each challenge, we will outline backup plans to address them. To differentiate these challenges, we will classify them based on their significance and how they may affect our design's progress.

Risks	Impact (1-5) low to high	Importance (1-5)	Probability of Occurrence (1-5)	Solution
Unrealistic timelines	5	5	3	<ul style="list-style-type: none"> - Every weekly meeting, refine timeline and adjust accordingly - Do check-ins on other group members and reassign tasks if needed
Inadequate Planning	3	5	2	<ul style="list-style-type: none"> - Take notes during client meeting and set goals - Review rubrics, past examples, and compare with product benchmarks
Lack of Client/User Feedback	3	3	5	<ul style="list-style-type: none"> - Do check ins with client and make adjustments accordingly - Test product on probable potential users, fellow peers, etc
Lack of Product Refinement (Product quality)	4	3	3	<ul style="list-style-type: none"> - Do product and quality refinement every week as a group - Review previous works and improve upon their quality with

				new acquired skills (e.g As we get better at unity, go back to things we designed first and make them better)
Technical Difficulties with Unity	3	4	4	<ul style="list-style-type: none"> - Ask the TA and PM for assistance when we encounter a hurdle - Use online resources to find solutions to problems

7. Clients feedback on conceptual design

The client acknowledged the design's strong suit in its simplicity and liked the idea of the main story but pointed out the need for a lot more detail. Their specific advice was to pick one specific detailed story to focus on building while continuing to simplify anything we come up with during the process as much as possible.

8. Feasibility verification

Due to its software-centric nature, this project is highly plausible in terms of viability. The success of the project primarily depends on the software capabilities at our disposal and our ability as students to maximize use within our time constraints, as the majority of the tools and physical equipment required for development are readily provided by the university.

9. Stopping Criteria

The stopping criteria for our prototype were established by considering the potential for further improvement within the available time frame. Our team is committed to enhancing functionality and attention to detail while also taking into account the time constraints. This approach ensures that we produce a user-friendly, emotionally compelling, and immersive experience. Our ultimate objective is appealing to the audience and convenience them to ban autonomous killer robots.

10. 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)
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	Determine user comprehension of scene	<ul style="list-style-type: none"> - Comprehensive Prototype - Measure if the user can understand what is happening in the simulation 	<ul style="list-style-type: none"> - Gather user feedback at the end with a survey - Ask users to identify any parts that confused them or that they didn't understand 	Starts with the development of prototype 1 up until the end of the development of the final product
	Determine if simulation is realistic	<ul style="list-style-type: none"> - Comprehensive Prototype - Measure how realistic the simulation is to the user 	<ul style="list-style-type: none"> - Gather user feedback at the end with a survey - Ask users to identify which parts were not realistic enough 	Starts with the development of prototype 1 up until the end of the development of the final product
	Determine emotional impact	<ul style="list-style-type: none"> - Focused Prototype - Measure the emotional impact of the simulation on the user 	<ul style="list-style-type: none"> - Gather user feedback at the end with a survey - Ask user what emotions they felt and specifically what made them feel that way 	Starts with the development of prototype 1 up until the end of the development of the final product
	Determine if problems with robots are easily identifiable	<ul style="list-style-type: none"> - Focused Prototype - Measure if the core message of the simulation has gotten across to the user 	<ul style="list-style-type: none"> - Gather user feedback at the end with a survey - Ask user how their opinions on killer robots changed from out simulation and what specifically made them come to that conclusion 	Starts with the development of prototype 1 up until the end of the development of the final product

11. Conclusion

In summary, this report provides a comprehensive view of our project, encompassing its timeline, requirements, cost estimates for materials, equipment lists for prototype creation and testing, and a testing outline. We've also highlighted potential risks and presented solutions to address them. Please bear in mind that certain aspects, such as the project plan and bill of materials, are subject to minor adjustments as production progresses.

12. Appendix: (concept designs)



