

Deliverable C-Design Criteria and Target Specifications GNG 1103

– Engineering Design Faculty of Engineering –

Design Criteria

Needs	Design Criteria	Functional/nonfunctional	Priority
Visually appealing	<ul style="list-style-type: none"> - Demonstrates the purpose of this project. 	Non-functional: directs a suspenseful message towards the user that helps understand the impacts of autonomous weapons.	2
Must be accessible to a large audience	<ul style="list-style-type: none"> - Avoid violent/triggering content. - Friendly to use. - Health awareness 	Functional: Must appeal to all audiences should not raise health concerns and is able to raise awareness about sensitive topics.	3
Must have a message	<ul style="list-style-type: none"> - Showcase project theme: (insert theme) - Empathetic and emotional (Add creative and efficient aspects like audio and sound, storyline design, relatable setting etc. 	<p>Functional: Has purpose to the viewer displays moral dilemmas, safety concerns and provides insight. Additionally, the theme can be portrayed using features like audio, storyline, graphics, and more., which are functional need emotional display must be included with</p> <p>Non-Functional: It should create an emotional impact on the viewer Has purpose to the viewer displays moral dilemmas, safety concerns and provides insight.</p>	5
Length and size	<ul style="list-style-type: none"> - Must be under 1 minute. - Limited to 4 scenes 	Functional: The VR walkthrough must be under 1 minute and should have limited scenes for time management purposes. By creating a short and compact story line we can get the message across in a short time frame.	2
Realistic and informative	<ul style="list-style-type: none"> - Must be true to societal behaviours. - Must be accurate when representing opinions and facts regarding autonomous weapons 	Functional: The walkthrough must include realistic aspects about societal opinions and differing opinions regarding this weaponry like, posters and physical objects that can be added. Additionally, these facts and opinions must be accurate to how they impact people in real life.	3
Targeted towards government official.	<ul style="list-style-type: none"> - Realistic and believable. - Instigate emotion with graphic, story. 	Non-Functional: it should address our target audience but also be suitable for any viewers. The final production of the project should include different aspects to drive emotion.	3

Benchmarking

Specification	Importance	Benchmark 1	Benchmark 2	Benchmark 3
Link		https://makerepo.com/tharsh02/1847.g6-rust-in-peace	https://youtu.be/mUosdCQsMkM?si=G8K_LNAL_K_mVQuhY	https://youtu.be/G7_YvGDh9Uc?si=FX9-a4bDrjySiLFY
Length	2	3	1	1
Accessible	3	5	5	5
Has a Message	5	4	4	5
Informative	3	4	5	5
Visually Appealing	2	5	2	3
Realistic	3	2	5	5
Non-graphic	4	2	4	1
Total		77	87	82

Ideal Target Specifications

Dimensions: things you have audio over: audio, resolution, emotional impact, graphic levels

Include number of scenes and general layout of how we want to layout our scenes.

Design specification	Value	Units	Description
Video length	60 ± 15	Seconds	- 1 full minute of VR walkthrough
Audio	45 ± 15	Seconds	- 45 seconds
Visuals	50 ± 10	Seconds	- 50 seconds of scenery remaining can be an introduction or conclusion
Field of view	360° (stereoscopic)	Degrees	- 360 degrees of view and 3D visuals
Number of Scenes	4 ± 1	Scenes	- Don't want to over complicate it. Use minimal scenes
Camera movement	First person POV	Visual style	- Method of delivering the video will be in a first-person view
File size	1	GB	- File size will be one GB
Cost	50	Dollars	- Visual backgrounds can be purchased for this project
Visual type	Video		- YouTube compatible

Client Needs

The client meeting played a pivotal role in shaping the design criteria and specifications for the VR experience. The insights gained provided a profound understanding of the client's needs and preferences, steering the team towards key considerations. Notably, the emphasis on simplicity and avoidance of overcomplications has become a guiding principle, prompting the team to prioritize a straightforward design approach over intricate details. Additionally, the client's concerns regarding violence and graphical content limitations will be integrated into the design criteria, creating a conscious effort to convey the message without resorting to explicit or disturbing visuals. The client's awareness of potential users with sensory issues has heightened the team's commitment to inclusivity, ensuring the VR content is considerate and accessible to a wide audience. Furthermore, the client's explicit desire for an emotional and storytelling-driven design has become a central focus, recognizing the importance of crafting a narrative that resonates emotionally to effectively convey the societal impact of autonomous weapons. Lastly, the client's target audience considerations, specifically government officials with no prior knowledge of autonomous weapons, have influenced the criteria to prioritize clarity, ensuring the VR experience is easily understood by individuals without background knowledge on the topic.