

# GNG 1103 Project Deliverable D: Conceptual Design

Group 7

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## **Abstract**

In order to create the best solution for our client, we developed subsystems that we considered important in our designs. For each of those subsystems, every group member created their own conceptual designs which were then consolidated and refined into three formal designs. By comparing and updating these 3 designs, we created one final functional solution.

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# Introduction

Each team member crafted conceptual designs for designated subsystems, encompassing storyline, setting, sound, themes, and user interface elements. Employing predefined design criteria and technical benchmarks from the previous deliverable, we used a decision matrix to assess and rank our respective designs. We then comprised the most promising components from each design into three formal iterations, which served as the foundation for constructing our final design.

## Subsystem 1 - Storyline

### Idea 1: Brian

While discovering that there is a lack of food in the underground bunker, we follow a person who's been relatively sheltered navigating his way to the food amidst the robots. He would be using tunnels, netted alleyways, people's houses that were used as means of getting to places. He would be putting on disguises and using decoys to get there. At the end he realizes the hopelessness of the situation.

### Idea 2: Sebastian

- Shows an example of a regular human's day when living under these conditions, showing what he does to work, what he eats, what routines he has to stick to, etc.

### Idea 3: Malcolm

A person will be walking around a small residential neighborhood that has been under noticeable war torn conditions as the place has been abandoned. The person will be walking by signs and posters promoting a vest that causes the robots censoring system to not work properly. There are also posters about staying inside and some military propaganda. There will also be sounds like sirens in the distance and bullets.

### Idea 4: Jean-Louis

A civilian in charge of monitoring the makeshift security systems in the labyrinth of tunnels detects the alarm being triggered in a specific tunnel. He rushes to alert the rest of the civilians as he bemoans that the robots would mistake a civilian shelter for a military target. Sounds such

as explosions suggest that the threat is imminent. Panic ensues and the fate of the people is left unknown.

## Comparison

	Pros	Cons	Score
Jean	Shows the rise of the robots, demonstrating the panic and fear perfectly.	Does not show the life under their control, does not demonstrate hopelessness, just shock and fear. No long term effects shown.	4
Sebastian	Good Way to show average lives, shows what everyday life would be like as the new norm	Lack of detail in this idea, not enough explanation. Does not demonstrate the themes effectively	2
Brian	Shows good adaptation, showing how citizens adapt to these robots.	Does not emphasize the panic of these robots enough.	3
Malcolm	Good detail, world-building and adaptation.	Lack of panic and feel of threat, does not emphasize the threat and danger that these robots pose.	3

## Decision Matrix

	Realism	Creativity
Jean	4	5
Sebastian	3	1
Brian	5	3
Malcolm	4	3

Most points for storyline: Jean

## Subsystem 2 - Setting

### Idea 1: Brian

The setting will be a relatively populated city, and will be specifically consisting of tunnels, houses, alleyways and finally the stores/food places. Less setting changes might be implemented if needed.

### Idea 2: Sebastian

- Human's have developed ways to not be seen by the robots, face coverings, body temperature regulators to prevent being caught by thermal sensors on the robots.
- Underground, mainly use tunnels to move around
- Near future

### Idea 3: Malcolm

The setting will be a residential neighborhood that has been noticeably damaged and abandoned. This way it relates to the average person to a sense that families used to live there but have been forced to leave due to the robots. This can be shown as present day to near future.

### Idea 4: Jean-Louis

An underground civilian shelter or refuge is one possible choice for a setting. The main problem with urban warfare currently is that it poses a drastically increased risk to soldiers while also putting civilians at high risk. Use of autonomous weapons could tempt armies to engage more regularly in urban fighting which could lead to civilians taking shelter underground. An underground environment would contain living quarters and security systems. There would be an extensive labyrinth of tunnels that connect to the surface at several points.

## Comparison

	Pros	Cons	Score
Brian	Large, and expansive	Does not mention	1

		robots at all. No threat or danger, ordinary city with tunnels.	
Sebastian	Focus on adaptation, showing how humans adjusted their way of life.	Does not effectively show the damages done by the robots.	3
Jean	Extremely detailed, well thought out setting. Emphasizes all the themes very well.	Extremely ambitious, large scale and hard to execute properly.	5
Malcolm	Shows the damage done by the robots.	Does not specify what the problem is, does not show the themes well.	2

## Decision Matrix

	Relate to User	Creativity
Jean	3	3
Sebastian	3	2
Brian	3	3
Malcolm	4	3

Most points for user setting: Malcolm

## Subsystem 3 - Sound

### Idea 1: Brian

There would be NPCs, at the start indicating the lack of supplies in the shelter. The sound of patrol and the odd gunshots would be in the background. If possible we would add ambience noises such as footsteps, people talking. There would also be very light suspenseful music. There would also be the voiceover of the person we would be following.



## Idea 2: Sebastian

- Voice-over describing events
- Haunting, chilling music (atonal?)
- Add suspense
- Silence in the city, afraid of being heard

## Idea 3: Malcolm

- Sirens in the background
- Hearing of gunshots, explosions
- Could be distorted music in the background to set the tone of a abandoned place
- A sense that the user is all alone like he's the last human

## Idea 4: Jean-Louis

- Voice-over for whatever a character says.
- If the situation is an active war zone, then distant gunshots and explosions could work.
- If the setting is underground tunnels, then tremors from explosions and a lack of carrying sound could add a suspenseful atmosphere.
- Music could be implemented to emphasize either a dramatic or solemn tone.

## Comparison

	Pros	Cons	Score
Brian	Good explanation.	Should give examples to specific music.	N/A
Sebastian	Good explanation.	Should give examples to specific music.	N/A
Jean	Good explanation.	Should give examples to specific music.	N/A
Malcolm	Good explanation.	Should give examples to specific music.	N/A

## Decision Matrix

	Appropriate	Creativity
Jean	4	3
Sebastian	4	3
Brian	4	3
Malcolm	4	3

Most points for sound: Jean, Sebastian, Brian, Malcolm

## Subsystem 4 - Themes

### Idea 1: Brian

The main theme would be the shift in society and how that has impacted day-to-day life. People would be less enthusiastic and there would be no reason to hope for another day as things seem unchangeable. The person we are following is someone who has not seen the robots and near the end of the video we would highlight his sudden shift in nature indicating how he went from very hopeful to not hopeful at all.

### Idea 2: Sebastian

- Hopelessness
- Adaption
- Changed way of life
- Constant fear and stress
- Resources concentrated in protection from the robots, little care for anything else. No money is put into food, water, cleaning the city, public services, etc.

### Idea 3: Malcolm

A good theme to be used is loneliness. Having the setting in a residential neighborhood is a place people think of when family and togetherness comes up but when the user is walking past the abandoned houses make you seem like no one is near you and you are all alone. Fear could also be a theme due to the sounds of war in the distance and the sense of loneliness does scare a lot of people.

## Idea 4: Jean-Louis

- Fear and desperation would help bring attention to the human struggle that would be born out of the use of autonomous weaponry. This theme would focus less on rational debate regarding this technology and instead focus on the more emotional aspect.
- A sense of dread and foreboding could be created that highlights the fear people would have. When the thing that might kill them is not even a rational being merely a computer, no trust can be placed in the morality of the choices it will make.

## Comparison

	Pros	Cons
Brian	Highlights the change the society has on a person. Shows the hopelessness and the secrecy of this new society.	Relying a lot on the voiceovers and without much showing of the robots it might not highlight the dangers.
Sebastien	Highlights some of the themes.	Doesn't mention how these themes are implemented into the story.
Malcolm	Isolation and loneliness are good themes that might make people relate more.	It will be difficult to display the isolation in terms of setting while also showing that robots are the cause of this. It lacks the direct connection to robots.
Jean-Louis	Creating an emotional video will be more effective in delivering our overall message.	The video will be focusing on mass fear which will be difficult to implement, and might be hard to express to the client.

## Decision Matrix

	Applicability	Usefulness
Jean	5	4
Sebastian	4	4
Brian	4	3

Malcolm	5	2
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Most points for themes: Jean
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## Subsystem 5 - User Interface

### Idea 1: Brian

This VR environment would be a first person environment with primarily static movements. There will be little interaction with NPCs, and will almost play like a first person shooter, but without the gun.

### Idea 2: Sebastian

- Third Person View
- Smooth, walking movement
- Pause Menu
- Door opening and closing.

### Idea 3: Malcolm

The user will be in a first person view with the ability to walk in a straight line and look left, right, and straight. This gives a more immersive experience to the user.

### Idea 4: Jean-Louis

The user will have less freedom in terms of both gameplay and interaction. Instead they will be locked into a specific storyline with scripted events. This idea for user interface will aim to place the focus on the storytelling and not the level of interaction.

## Comparison

	Pros	Cons
Brian	Highlights the lack of dynamic movements and addresses the use of NPCs for the story.	Little to no explanation about camera angles.

Sebastian	Would provide detailed, effective experience with room for creativity.	Extremely hard to execute, not realistic.
Malcolm	Simple to work and make, less chance of further problems	No 360 degree, doesn't give the user full immersive experience as no full free movement
Jean	If implemented correctly, it has the potential to enhance storytelling.	Much harder to implement, and limits player freedom.

## Decision Matrix

	Realism	Ease of making
Jean	2	2
Sebastian	2	4
Brian	3	4
Malcolm	3	2

Most points for user interface: Brian

## Conclusion

This report shows the process we used to decide the options we created for the storyline, setting, sound, theme, and user interface. It was done by doing a comparison of pros and cons, as well as doing a decision matrix to decide which of our ideas worked the best. Overall we chose the storyline made by Jean, the setting made by Malcolm, the sound by everyone due to being similar, the themes of Jean, and the user interface made by Brian. These decisions were made by discussions with the group as well as the design criteria.