

## RPG – 42 Report

By Jacob Marsh for Aim-Gosh-Mackarelli-s-Minions

Aka

### Project Saved

For this project, I had the opportunity to serve as the Project Manager and in my head, it made a lot of sense logically, to first start towards building this game by laying a decent foundation. I sought to accomplish this by deciding that we should first focus on the direction that our story would go, which would also dictate the type of game we wanted to make. After some deliberations, we decided upon Sci-Fi for the theme, and after that I thought it would be good to immediately start on the world-building aspects of the game, namely the story and music.

Brandon Beene was the Storyteller, and he drew upon various influences to create our sci-fi world. One of the core components outlined was that the game had to incorporate some aspects of “Freedom” into the theme, so he decided to have that be represented via our character piecing together their memory, and the events that occurred before, as the game progresses, thus giving them a crucial choice on what to do at the end of the game once all the pieces of the puzzle have been put into place.

Our Story takes place aboard The Arcius, a derelict ship marooned in space above a burning star. The Hero wakes up with the words “...You are free. Now free us from our everlasting dreams. You are like us...” as what echoes through their mind. The player then meets up with an A.I named K.O.R.I who helps them on their journey through the ship as they fight the Kemons, who

are an alien race that ended up scorching the Earth during a series of wars against the resistance known as the GNP or Global Nations Protection Unit.

As we settled on this theme, I wanted Gunner to create some music that would fit a sort of eerie type of vibe in an 8-bit style for the game to aid in the retro feel that was also a part of what we were going for. He accomplished this by making the music on BeepBox.co and implementing it into the game via BRIDGES.

Our UI was designed by Joshua, who was the designated Curselord, and took it upon himself to learn and build it in Dear ImGui, since we came to an agreement that using Dear ImGui was the direction we wanted to take instead of going the NCURSES route. This was decided due to a rocky start with NCURSES and although we had made some progress, it seemed more viable to start over in Dear ImGui instead. He also created the world map and player sprites for the game, as well as implementing a way to move around in the world.

Angel had the role of Socketroth and was tasked with doing the networking for the game, as well as coding a server that would allow for the potential ability to have multiplayer in this game. We wanted it to be at most a two-player experience where both players' inputs would be read into the server and displayed in real time to each other.

Isael was the Thread Lord for the project and was tasked with handling the threading/multi-threading for our game. The biggest thing he tackled was handling the interactions that would occur in the game world, such as if one player tried to do an action on the other players' turn or interact with an object that the other player is already interacting with.

Juvraj was our Taste Tester and was responsible for testing the code of our various members by writing the test cases using Google Test or GTest. This was one of the more time-consuming

parts as it relied primarily on having the finished code of the other members' parts available in order to create test cases that might actually function properly. He explained that in order to do well in this, he had to look at the scenarios for the game very comprehensively in order to come up with tests that would cover all the potential points of error or breakage in the code, as well as the more basic components as well, such as the individual characters.

Lastly, I as the Project Manager was tasked with overseeing the group and making sure they stayed on track, as well as sending daily reports of progress to the professor, and creating a Readme file, which I did using <https://stackedit.io>. My final charge was to write this essay, as well as provide any support that was needed by my various groupmates throughout the project life. Overall, I think that we did well for the setbacks we had suffered, such as not starting with a full group, due to having two ghost members, then one of our members relayed to me that they wished to leave the group as they had a personal issue come up and would not have been able to contribute their full effort to the project. We bounced a lot of ideas around and did our best to communicate various schedules and availabilities so that we all knew where each of us were in the project at any point. I think that we did well and it was a great opportunity to work with this group to tackle this assignment.