

Aliens & Arcades Documentation

Link to my E-portfolio:

[Zephyrym's Game Emporium - Aliens & Arcades](#)

The process of creating Aliens & Arcades started on the second day of class, where I came up with the idea of a player navigating an arcade that is infested by an alien invasion. I also associated this idea with 80's guitar driven music and neon aesthetics. This became the compass that guided this project

As I read in the book "The Art Of Game Design", I took this idea and made it the essential experience upon which everything else was built. An arcade being invaded by aliens is a cool idea, and from there I sought to build it out.

Quickly, I brainstormed that the arcade could have several levels, and the prize shelf could be weapons and armor used to fight the aliens. The idea I had was that the final item would be a key to unlock the alien mothership, where the player could pursue the final boss of the game, but I determined that such an endeavor would be outside of the scope of this project.

I began coding the game in mid-November. I designed the title screen and the first room quickly, along with the first room's layout. Besides minor re-draws of the sprites, this layout remained the same throughout the process. I soon narrowed the scope of the game properly: Two main rooms and then one boss fight room.

The combat system that I used for the game was a turn-based model based off of many of the SNES games that I have been playing during the semester, such as Seventh Saga, Earthbound, and most notably Chrono Trigger. The silent protagonist idea of Chrono Trigger also carried over to my game.

The enemies were slowly but surely coded in. Ensuring that the player could damage them without allowing spam was difficult, but eventually I created a system that increased the amount of damage the longer the player waited. However, I analyzed that such a system, along with the button system I designed to handle the combat actions would be cumbersome for new players.

The solution I devised for this is having the first enemy ignore the charge-based model. The player can spam this first enemy dead, but it will not work for successive enemies. The reward that I devised was a two-currency system. This kept the mini-games in the arcade and alien combat both relevant.

The store was created shortly after. While the GUI for the store was completed in the second weekend of December, the basic system allows players to buy better armor to face tougher enemies. It was around this time that the strong aliens, the tougher enemy, was coded into the game.

The mini-games were a project I worked on when the main line of the game became cumbersome for me to work on. Many of the work sessions for this game were hours-long work sessions in my dorm, late at night, fueled by caffeine and music. The mini-games provided a detour when I was stuck on something in the main line, but still allowed me to contribute to the final product.

The final sticking point for the game was the boss fight. Balancing was the most difficult part of this boss. I wanted the player to have a decent chance at dying, but also make it possible to defeat. I also wanted to force the player to use unconventional strategies to defeat the boss. The idea that stuck was having the player fight something that wasn't the boss itself, but a conduit.

This idea was partially inspired by Chrono Trigger. In a mid-game boss fight, the boss isolated himself behind an invincible shield. The player must target a pulley system rigged throughout the boss room, which eventually forces the player out from underneath the boss, killing him.

In this case, I created an obelisk that is a conduit for the alien's power. However, I soon found that, provided the boss didn't go snooping in that part of the room, the player could just sit and spam the obelisk until it was out of health points. I then employed the same teleportation mechanics I created for the boss, forcing the player to move around the room a minimum of 10 times, chasing the obelisk while dodging the boss.

It was this detail and GUI refining that defined much of the final weekend of the project. This project used over 64 sprites and almost 50 different objects, many of these items holding at least 4 or 5 actions. The project probably holds over 1500 lines of typed code. Even with limited visual effects, it is still 80 KB as a compressed file.

The most important lesson I learned from this project is that coding takes roughly double the amount of time that I anticipate, but it is still faster than visual coding. I also learned through experience that most of the progress for a project like this happens late at night. Lastly, I learned just how valuable just explaining a problem to someone else can be, as I solved multiple bugs just by explaining them to my peers.

With that being said, this documentation is complete. It is also 11 PM, and I have been at the computer coding, with only about 2 hours of interruption for the whole day, since 11AM. It is high time that I draw this project to a close and find some well-deserved rest. Thank you for the experience. This was one of the greatest projects I have ever done, but now I am glad for it to just be over.