

## **Project 2 Proposal**

My project will be somewhat based off of the old “space invaders” games, with similar mechanics and overarching ideas but remaining original by using a different concept. Instead of the player being a spaceship that has to destroy other ships that are attacking, my idea is to have something based off of the *Sonic the Hedgehog* games. By that, I mean that I’m thinking of having the player play as Sonic himself and he’s fighting off Dr. Eggman and his army.

My parents wanted me to do something that was similar to *Space Invaders* but I wanted to add my own spin on it. My brother and I used to play the *Sonic* games all the time when we were growing up, my imaginary friends were all of the characters from the games and show until I was way too old to still be having imaginary friends. I thought it could be cool to combine something my parents wanted to see with something that also means something to my brother and I.

Ideally, I would like to have three levels of the game and a win / lose function. Each level will slowly progress in difficulty, only having to fight a small number of enemies in level one but the number of enemies gets larger as the player progresses through the game. The first level would have 6 enemies, the second would have 10, and the last would be a “boss fight” type of level with a couple of the previous enemy bots there just to add a further challenge.

I’m hoping to add sound to the game, at least some sort of background music, though I would love to have sound effects for the shooting. This may present challenges as I am not too confident with sound and have not really experimented with it very much. I’m sure the challenges will be somewhat simple enough to overcome with all of the information given in class but I am also certain that it will get very frustrating.

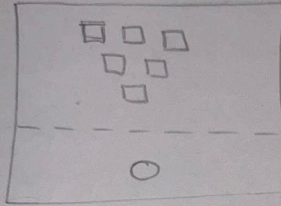
While creating my prototype, I was already running into some issues with the shooting aspect of the game which I managed to get working with the help of Pippin and Mathilde. A lot of the issues I will have, I am almost certain will be because of simple troubleshooting or silly mistakes such as putting a comma instead of a full stop, or forgetting to add my classes to the html folder (which has already happened more times than I am willing to admit). The most important thing for me is going to be just checking over everything and making sure I don't make silly mistakes like those.

The player will control Sonic with the WASD keys, although I am considering switching it to the arrow keys but I am not yet certain, and will shoot the bullets using the spacebar. I also thought about using the mouse to control the user but I know that I, personally, prefer to use my keyboard when playing games, I find it more comfortable and natural than using my mouse. The player is restricted to only the bottom third of the screen in order to make the game slightly more interesting than simply having a "free roaming" player. I'm still not entirely sure how I'm going to get the enemies to work, I have a rough idea based on the code I used to make my "Age of Aquariums" game so I can have a look at the code I used there and see how I can implement bits and pieces into this project.

Below are some super rough sketches that show the basic layout of what the game will look like, using circles and squares to represent the player and enemies. The background of each level will be one of the zones from the actual Sonic games to give the player a more immersive experience.

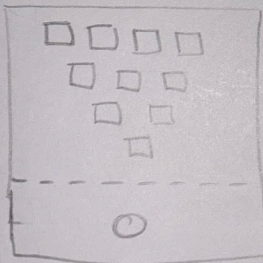
## Sonic invaders

level one:



- = player
- = enemies
- Player cannot go above the dotted line.
- the background would be from a sonic game.

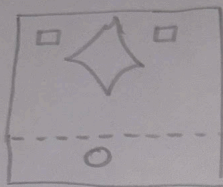
level two:



- = player
- = enemies
- Player cannot go above the dotted line.
- the background would be from a sonic game.

!MORE ENEMIES ON THIS LEVEL!

level three:



- = player
- = enemies
- ◇ = final boss
- player cannot go above the dotted line
- background will be from a sonic game
- final boss is harder to beat than regular enemies.