

Period 2

Matthew Tam

Arcade style top-down shooter("Shoot em up")

"A "shoot 'em up" is a game in which the protagonist combats a large number of enemies by shooting at them while dodging their fire." [\[The Wiki\]](#)

Current functionalities:

Player movement, bullet movement and firing

- Player can move via the keypressed method, using the up/down/left/right arrow keys
- Because the keypressed method has been implemented in such a way that the player will continuously move in the last pressed direction, the SHIFT key has been added to stop the player from moving
- Bullets fired automatically and move straight forward

Basic enemy entity

- A basic entity that acts similar to the player character, but only moves in a preset direction, down the screen

An enemy with multiple bullet directions

- The basic enemy, but the bullets move in 4 different directions

Collision check

- The player colliding with enemy projectiles will trigger the "playerIsHit" method, reducing hitpoints, as can be seen on the hitpoint display on the top left
- Enemies colliding with player projectiles, with the exception of bosses, will take damage and disappear when out of durability

An elite enemy

- An enemy entity that has homing projectiles and a laser
- The homing projectile has a stepCount limit, and cannot stay on the screen for too long
- The laser is implemented in such a way that the player will rarely take damage from it, as allowing the laser to collide with the player on screen for any significant amount of frames will usually result in an instant death

Power-ups

- Modifications to the player status
- The speed-up power-up increases the rate at which the player can move
- The timeSlow power-up essentially stops enemy movement and firing, however, it also prevents enemies from being deleted until the duration is over

A boss

- An entity that exists only to launch its attack patterns at the player
- The Big Crab is the only implemented boss
- The bar above the boss will decrease with time, rather than hits
- The boss has 3 attack patterns
 - A randomized "bullet"(the same as the ones from basic enemies) spray from the "claws"
 - A laser from between the feelers

- A barrage of missiles(the same as the elite enemy's) from the right side

A hitpoint display in the top left corner

A gameover screen(with recorded framecount)

Note: The bossfight can start immediately upon pressing the CONTROL key