

Repository Link:

<https://github.com/BrandonMCoffey/4368-Tank-Game>

Controls:

W – Move North (Upwards)

A – Move West (Left)

S – Move South (Downwards)

D – Move East (Right)

Space – Shoot

LMB – Shoot

Mouse Cursor – Aim

Backspace – Reset Level

Escape – Pause (Allows user to Exit Game)

Innovation:

Cutscenes – Boss build up and revealing

State Machine for the Boss AI

Two object pooling systems – Sfx and Bullets

Observer pattern on Scriptable Objects to completely dereference State / UI and Game

Notes:

Whew that was a lot of work and started to get really complex putting it all together, but I think it turned out well and was fun to play. The battle got hectic, which was something I wanted, but stayed for the most part readable and fair.

As for issues that I faced, the cutscenes were a messy script that access just about everything in the scene and call individual functions on other objects, and I'm not sure how to better deal with that.

Also, debugging the Boss AI was difficult, and there are still a few issues that I'm leaving unresolved, but I enjoy the state pattern and will learn it better for next time.