



Space Force Official

A project by:

Evan Boardway

Ryan Kinahan

Abbey Diller

Max Foreback

and Wyatt Davis



SPACE PIRATES

Space Pirates is a game about... well, Space Pirates. You are a disgraced former pilot for NASA who was banished from Earth for crimes you (probably) didn't commit. As a new pirate with a hefty vendetta, you need to collect resources, beef up your ship, and gather an arsenal of cool laser guns in order to take revenge against NASA. You may as well take down the whole earth while you're at it.

Go big or go home... and you can't go home, so...



Brief Recap

September 23 - October 30

- ❖ Created a **Main Scene (Title Scene)**, **System Scene**, and **Earth Scene**
- ❖ Moving ship sprite
- ❖ Navigator that allows player to select system
- ❖ Systems of randomly generated planets
- ❖ Randomly generated resources for each planet, collected by flying into the planet
- ❖ Player stats and resources that remain constant between systems
- ❖ Basic trade functionality (resources → coin, coin → fuel)
- ❖ Enemy ships

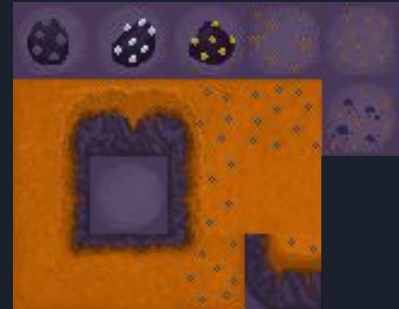
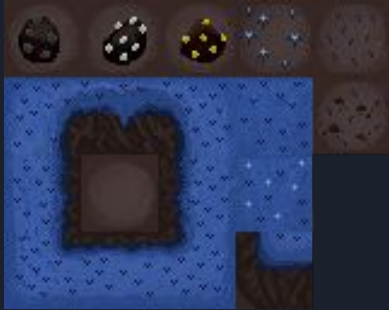


Timing

- ❖ Did our schedule go exactly according to plan?
 - ...No
- ❖ Did we accomplish all we'd hoped to accomplish by the end of the semester?
 - Yes!
- ❖ Planned to have a steady work flow immediately after the midterm
 - We'd hoped to get everything done by late November with some room to work with
- ❖ We worked more periodically throughout November and early December
 - We ended up finishing everything up in the last couple of weeks
- ❖ Work pace went according to schedule
 - Everyone worked at the expected pace
 - The days everything was completed just don't line up with our Gantt Chart

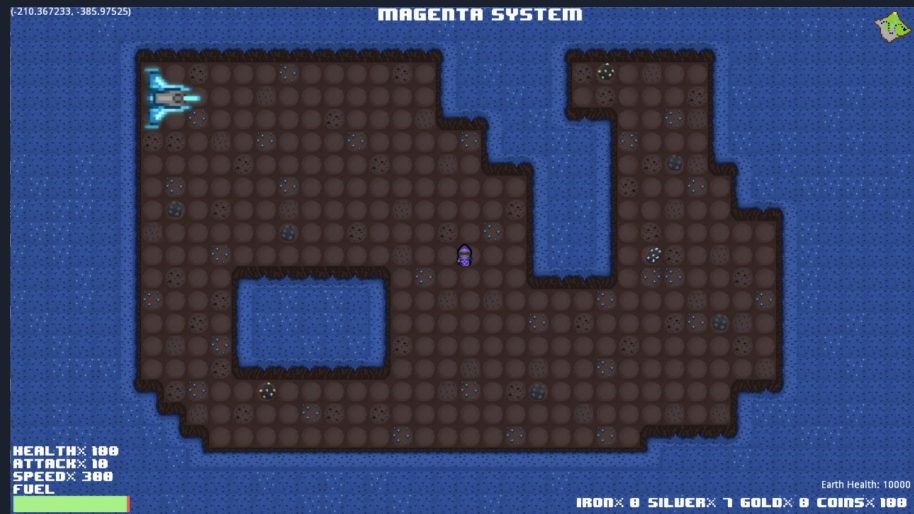
What we've done since the Midterm (1)

- ❖ Tileset maps and ore sprites for planets were drawn



What we've done since the Midterm (2)

- ❖ Player can enter a map, which is randomly chosen when a planet is touched
 - Player sprite can move around on planet maps
 - Now the player interacts with ore to collect a randomly generated amount of that resource
 - Interact with ship to return to the system - there is a cooldown so the player can't go back to the same planet over and over again





What we've done since the Midterm (3)

❖ Ship upgrades

- Purchased from trade stations using coin
- 3 upgrades per player stat (speed, attack, and health)
- Increase player stats by a set amount
- Price increases with each upgrade

❖ Crewmates

- Purchased from trade stations using coin
- Randomly generated crewmates (9 per system trade station)
 - Generated every time the system is loaded
- Crewmates apply modifiers to certain player stats (determined by their job)
 - **Booster Engineer:** Multiplies speed
 - **Weapons Expert:** Multiplies Attack
 - **Hull Specialist:** Multiplies Health
- Stat multiplier randomly generated
 - Price determined by stat multiplier
- First and last names of crewmates also randomly generated from lists of options

❖ Repairs

- Purchased from trade station using coin
- Fully restores player's health stat
- Price is determined based on how much damage the player has taken



What we've done since the Midterm (4)

❖ Player lasers

- Right-click to shoot (1 click = 1 “laser”)
- Explode after they reach a certain range or after they make contact with something
- Deal a certain amount of damage to enemy based on attack stat

❖ Enemy lasers

- Automatically shoots player ship when they enter their attack range
- Shoot player in incrementally after they enter their attack range
- Enemy lasers do a static amount of damage, but they outnumber the player
- Enemies cannot shoot in trade stations, making them safe spaces

❖ Lose conditions

- If the player's fuel runs out, they game over
- If the player's health runs out, they game over

❖ Win condition

- If the player destroys the earth, they win



Minor Additions

❖ Music and Sound Effects

- Music plays and loops throughout the game
- Sound effects for the player's lasers
- Sound effects for ship moving
- Mute button for the music

❖ Animations

- Animated movements for planet player sprite
- Animations for lasers
- Animations for flames at the tail of the ship

❖ Enemy health bar

❖ Instruction Scene

- Introduces player to the game's controls
- Immediately follows the story intro scene

❖ Final Polishing Points

- Making the Earth look better

❖ Final Balancing Points

- Making the game reasonably difficult
 - Not too easy
 - Not too hard
- Balancing prices



Testing Strategy

- ❖ We are planning on breaking our project down into basic components consisting of planets, trade stations, enemies, and the player ship.
- ❖ After that, we are planning on testing the basic components of each class to make sure they worked as intended (Unit testing).
- ❖ Then we will test interactions between two different components (Integration testing),
 - ...such as making sure players can land on planets and interact with trade stations.
 - We're also planning on testing to make sure players could participate in combat, first within the player class by testing projectiles, testing the projectile's interaction with other objects and finally making sure the projectiles do damage to the Earth and CPU ships.
- ❖ The finale should come by bringing them all together, combining multiple interactions into bigger, more complex components of the game (System testing)
 - ...such as making sure players can travel to different systems and interact with any planets and trade stations, and enemies within each.

Demo Time!

