Going Critical MVP GDD V 2

Team

Exploding Penguin

Members:

Designers	Programmers	Artists
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Date	Change Made	By
18/11/2021	Added "Endless" to flowchart	Andrew Spinks

Core Experience

Hectic communication between players.

Genré

Party/Couch co-op

Pillars

Communication

Team Building

LogLine

Stealing a ship and keeping it is hectic and stressful.

GameLine

As a team, the players must manage the health of their ship, manage the power of the ships systems, dodge/destroy incoming asteroids and escape with this prototype ship while being chased by the ships former owner.

Engine

Unity

Platforms

PC, Xbox

Persona/target market

Social Sammy

Age: 25

Occupation: Student

Motivations

- Likes sci-fi
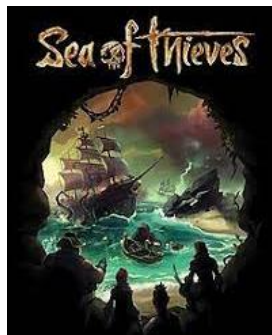- Only has time for short play sessions
- Easy to learn gameplay

Wants & Needs

- Pick-up-and-play style games
- Playing with friends

Frustrations

- Heavy focus on narrative
- Huge time sinks
- Complex gameplay

Likes

Overview

The main pillar of this game is communication, as such almost everything needs to tie back to this core pillar.

Objects

Environment

Asteroids

Use:

- Periodically bombards the player ship, every 5 seconds.*
- The direction at which the asteroid travels towards the ship is random.

Interactions:

- Can be shot down by defense system.

Impact:

- If an asteroid impacts the ship, the closest hull breach position creates/increases a hull breach station.
- If there is a ship station in that location, there is a chance that station is also damaged.

Asteroid Field

Use:

- An event visible on the radar track.
- Same as asteroids except many are spawned.

Interactions:

- Can be shot down by the defense system.

Mechanics:

- Waves
    - 2-4 waves of groups of asteroids spawn in a short amount of time.*
        - 2 seconds? *
    - Each wave would have 3-6 asteroids spawned at the same-ish time.*
- Direction, unlike normal asteroids, a direction is picked for the whole asteroid field.
    - Asteroids are then spread out across the plane to give the feeling of a field of asteroids.

Plasma Storm

Use:

- To damage systems that are in the "on" state

Mechanics:

- Every 0.5 seconds a lightning strike hits an "on" station of the ship.*

- When a plasma storm occurs any stations with an "on" state
  - At this time those are:
    - Reactor
    - Engines
  - Suffers multiple damages instances and turn off.
- Does not cause hull damage.
- The "on" state stations can avoid damage by being turned off.

Chase Ship

Use:

- To launch missiles at the player ship from the rear.
- Like the other events, stays as long as the players remain in that section of the event timeline.

Mechanics:

- Fires ballistic missile "Asteroids" at the player ship.
- A hull of the other ship appears behind the players' ship.

Ship

Oxygen/Health

- The health of the ship is the health of its crew IE: the overall oxygen level of the ship.
- The oxygen calculation occurs every second, tallying up the oxygen generators and the oxygen drainers. The given total will then move the "Health" bar up or down.
- The health cannot exceed 100% and likewise 0%.
- If health is at 0% the game is over.

Oxygen drainers:

- Passive Decrement: 1%.*
  - No ship is made air tight, and slowly leaks air each second.
- Hull Breaches: 5%, 10%, 15%, 20%, 25%, etc*
  - A hull breach starts at a 5% drain.*
    - Each time it gets bigger, it adds another 5% drain.*

Oxygen Generators:

- Reactor: Regenerates 5%*
  - Only occurs while the reactor is on.

Stations

The following are the base stations that all ships should have.
All stations can be damaged. This damage is occurred from impacts/plasma storm.

Station damage can be accumulative, multiple damage instances just increase the time it takes to repair said station.

Reactor

Uses:

- Produces Diesel for the engines to function.
  - A Reactor will create 1-2 jerry can of diesel once every 4 seconds* (depending on the num of players)
    - This can only happen if the reactor is in the "on" state.
- Replenishes the oxygen/health of the ship
  - The reactor will passively regenerate 5% of the ship oxygen per second.*
    - This can only happen if the reactor is in the "on" state.

Switching States:

1. In order to turn the reactor on and off, two players must interact with the reactor by pressing the 'A' key.
   - "interaction" points for the reactor should be placed in a logical manner, eg: on either side
     - Better still just make it modular for us designers to modify if needed.
2. Both players must then press the 'A' key within moments of each other to make the reactor switch states.
   - Start with a 0.25f margin of error.*
- The reactor will switch to the "Off" state if it takes damage.
- The reactor cannot be turned on if it has any damage.
  - The damage must be repaired first before the players can interact to turn the reactor on.

States:

- On
  - Resources
    - Replenishes ship oxygen/health
    - Produces Diesel for the engines.
  - Events
    - Will be damaged if caught in the plasma storm event.
- Off
  - Resources
    - Does not generate resources while off.
  - Events
    - Is not affected by the plasma storm event.

Damaged:

- Turns off
- Must be repaired before it can be turned on
- Does not produce it's output resources.

Engine
Uses:

- To keep the ship moving on the track. If they are not fueled, then no progress is made.

Fuel:

- The engine runs on diesel fuel produced by the reactor.
- The engine can hold 3 jerry cans worth of fuel at any 1 time.*
- It takes roughly 1 second to empty a jerry can into an engine.*
- An engine will use approximately 1 jerry can of fuel per 10 seconds.*

Speed Decay:

- Each engine adds speed to the movement of the track.
- When an engine is turned off, its additional speed is slowly decayed from the speed of the track.

States:

- Off
    - Does not function or consume fuel when off.

Damaged:

- Engine turns off

Sensor
Use:

- To show the upcoming event information to the players.
- To show the current position of the players' rival on the track.

Interact:

- To activate the sensors a player must press the 'A' key near the station.

Mechanic:

- A pulse goes out from the ship icon on the map.
- As the pulse intersects track portions
    - Graphics about that segment rapidly alphas in
    - Stays for 0.5 seconds.*
    - Then fades out over another 0.5 seconds.*

Damaged:

- A damaged sensor cannot be interacted with until repaired.

Defense System
Use:

- To shoot down asteroids on its section of the ship.
    - Within a radius of the station.
- Manually targeted by the player.
- Must be fueled in order to be used.

Toggle:

- A player must interact by pressing the 'A' key to enter targeting mode.

Shooting Mode:

- The Intention when an asteroid symbol appears the players have roughly 3 seconds* to reach the defense system and interact with it, aiming the weapon and firing. A player should be able to shoot down up to two asteroids in this time. ******
- Fuel, the defense system must be fueled up in order to fire projectiles.
    - A defense system can fire 5 shots* before needing to be refuled.*
- It takes at this time 1 shot to destroy an asteroid.*

Damaged:

- Can be fueled up while damaged.
- Anyone currently operating the system is shunted out of it.
- Cannot be used until repaired.

Hull Breaches
Use:

- To drain the ship of oxygen/health.
- A breach drains the ship at 1% per second.*
    - The next drains 3%*
        - Each size category after the second adds another 2% drain.*

Size:

- Hull breaches come in different sizes. When an impact first occurs, it creates a hull breach at the closest breach point.
    - If the breach point already has a breach, the breach increases to the next level.

Repair:

- In order to fix a breach, a player must go to the breach point and hold the 'A' Key to seal the breach.*
    - A breach takes 1 second to seal. Each size after the first adds an additional second to seal.*

Other Mechanics
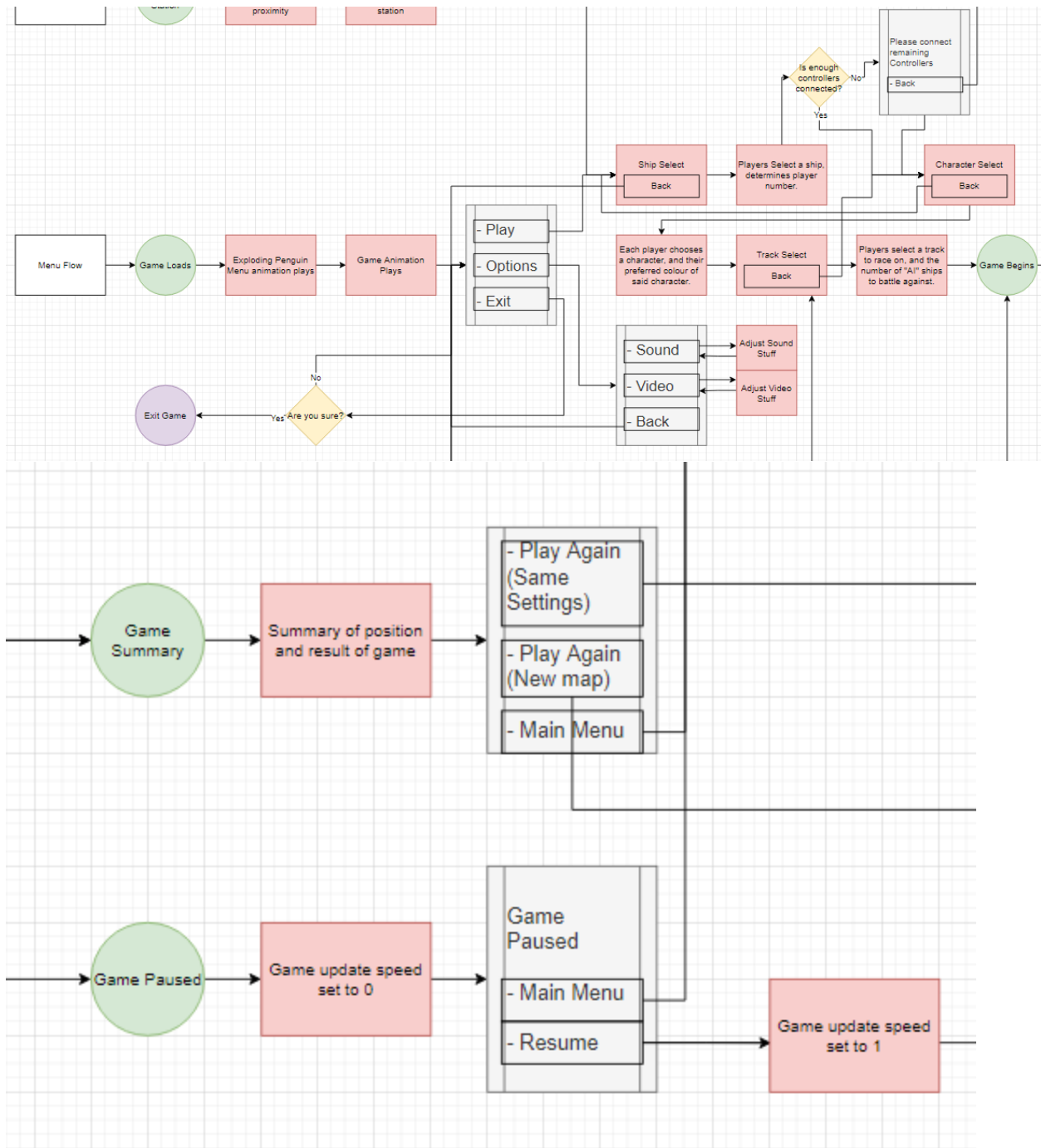 * = Subject to change.

Narrative
You play as a member of a band of thieves.

Having successfully stolen an experimental space craft, which contains the new diesel synthesizer reactor, you must now maintain the ships systems and escape the various perils to keep your bounty.
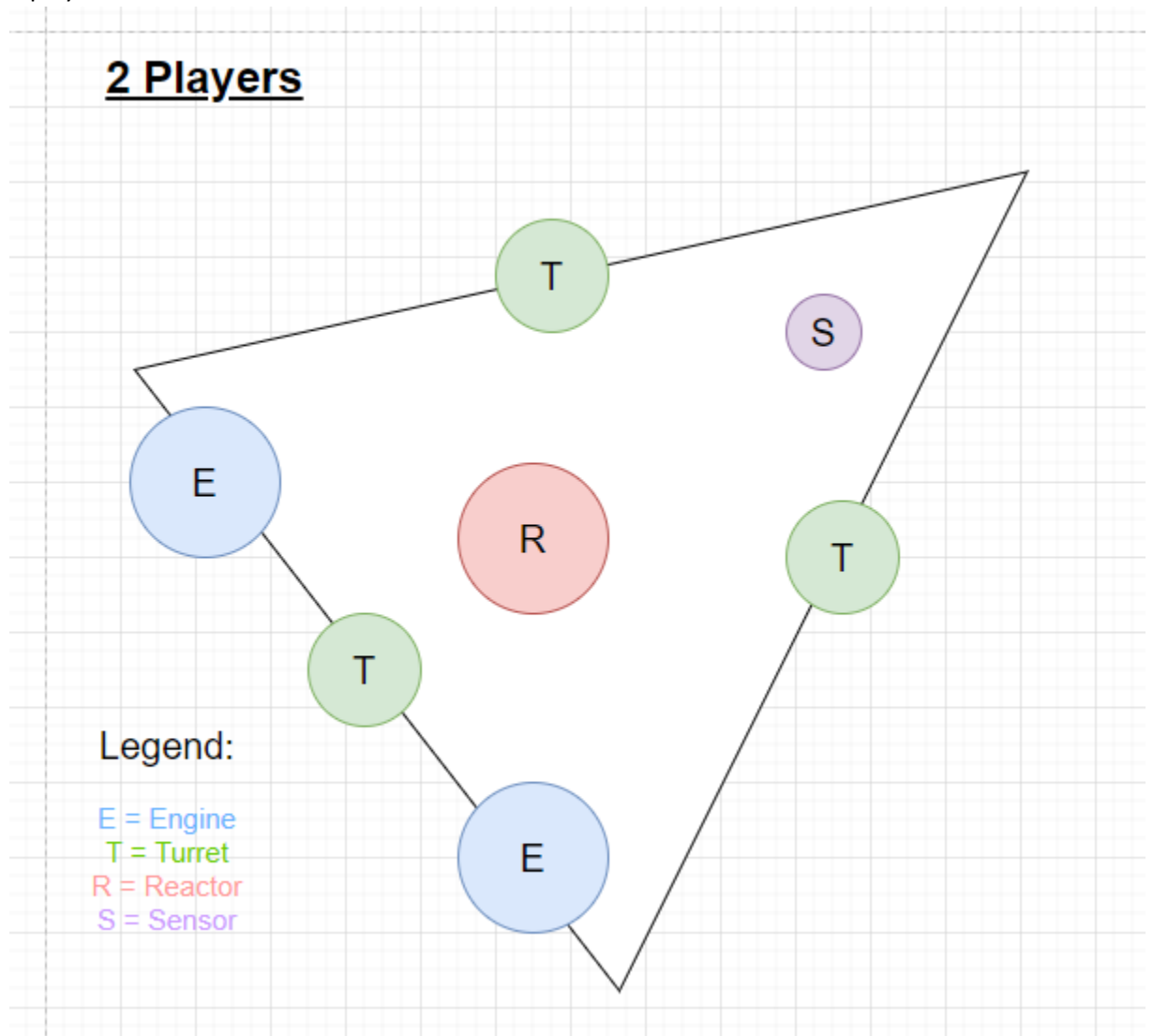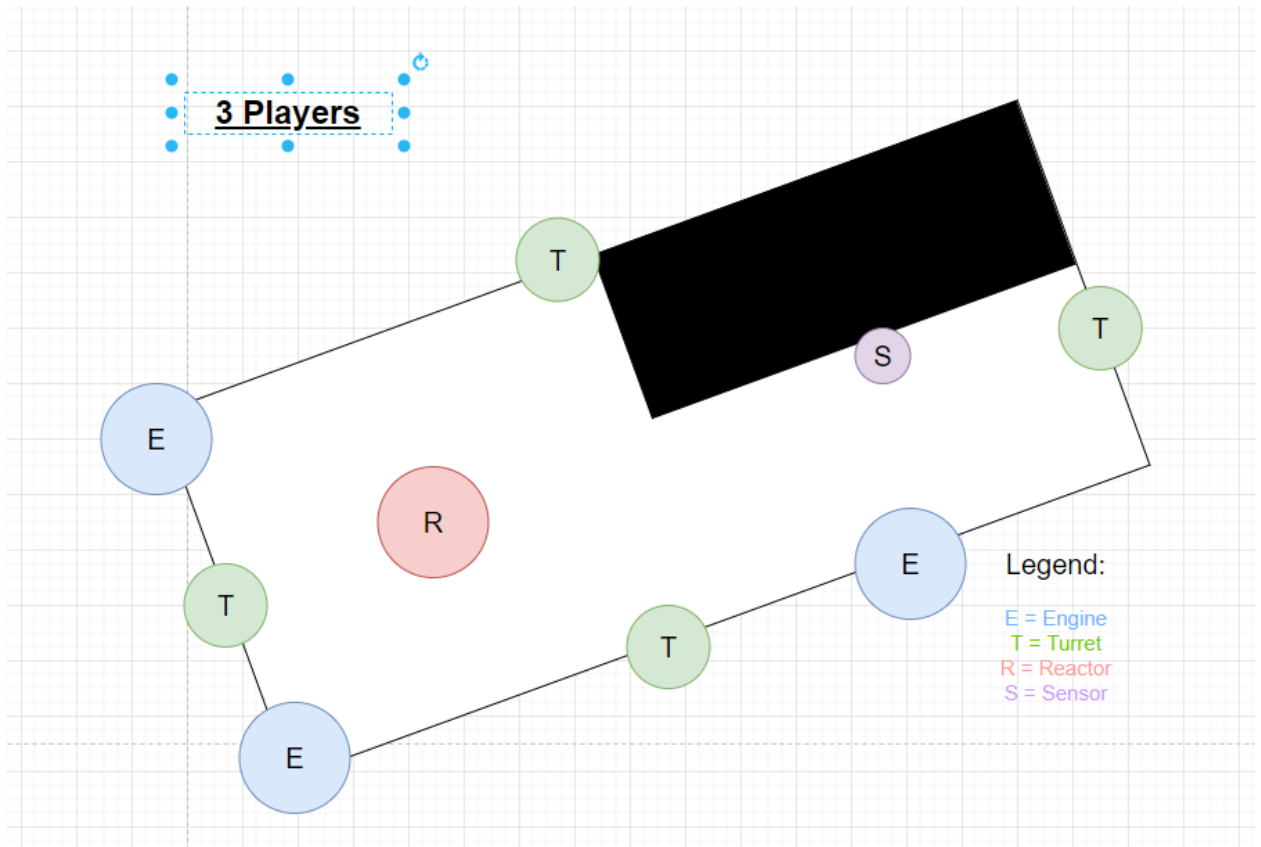
Controller Layout

Player Movement

Menu Back Key

Menu Navigation

Select, Action Key

Pause, Add Player

Menu flowchart

station	proximity	station

Is enough controllers connected? →No→ Please connect remaining Controllers
- Back

Yes

Ship Select	Players Select a ship, determines player number.	Character Select
Back		Back

Menu Flow	→	Game Loads	→	Exploding Penguin Menu animation plays	→	Game Animation Plays	→

- Play
- Options
- Exit

Each player chooses a character, and their preferred colour of said character.	Track Select	Players select a track to race on, and the number of "AI" ships to battle against.	Game Begins
	Back		

- Sound → Adjust Sound Stuff
- Video → Adjust Video Stuff
- Back

No

Exit Game ← Yes — Are you sure? ←

Game Summary	→	Summary of position and result of game	→

- Play Again (Same Settings)
- Play Again (New map)
- Main Menu

Game Paused	→	Game update speed set to 0	→

Game Paused
- Main Menu
- Resume → Game update speed set to 1

Characters

Human

Cat

Dog

Ship Layouts

- 2 players

2 Players

Legend:

E = Engine
T = Turret
R = Reactor
S = Sensor

- 3 players

3 Players

T

S

T

E

R

E

T

T

Legend:

E = Engine
T = Turret
R = Reactor
S = Sensor

- 4 players

4 Players

T

S

E

T

E

E

R

T

E

T

E

Legend:

E = Engine
T = Turret
R = Reactor
S = Sensor

User-Flow