For my CART 263 final, I am proposing a continuation of a hypertext narrative I designed last year for a separate class by creating a narrative based game as its new chapter. By continuing development of the P5 library, along with P5.play and P5.sound, it is my goal to build a modular engine that would be reusable by anyone with access to the .js files. If all is successful, the engine will have the following technical features:

- Queueable text for dialog boxes from external .txt files.
- Keyframe animation system.
- Inertia based movement controls.
- Enemy pathing systems.
- A fog of war effect optimized to use as little resource as possible.
- A small collision detection library for different shapes.
- A state machine for scenes.
- And if I have time, documentation on how to reuse the engine.

The largest technical challenge of this project will be keeping everything clean and orderly to make the engine usable to others. I have already begun planning out the workflow and it's my hope that by critically looking at my development time project 2 last year, I will be able to accomplish all of this on time.

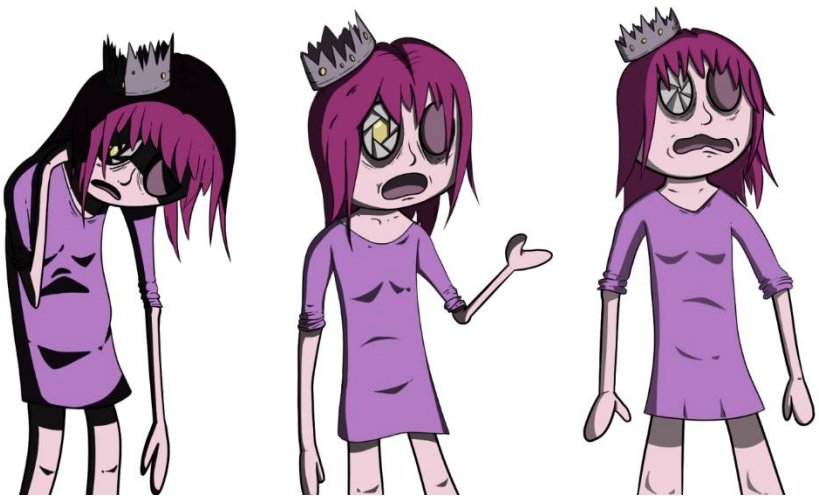
As for the non-technical elements of the project, its narrative structure will be a blend of fantasy, horror, and humour as I explore the journey of transition in the most absurdist way possible. Rather than get into the details about what the story will look like, I would encourage you to give a quick read through of the first 2 chapters at www.palemaskpress.com as that will do a better job explaining where things are going. I acknowledge this is an ambitious project and I'm still not completely convinced I can pull off everything as cleanly as I hope, but I am confident I can have the full project done. Planning for this started at the beginning of semester and little by little I have been building all the non-technical resources so that will not be a bottleneck during development. Be it the technical portion, the audio/visual elements,

or the scripted narrative, this project was intentionally built to push my comfort levels and regardless of anything else, I can genuinely say I am excited to see how it will turn out.

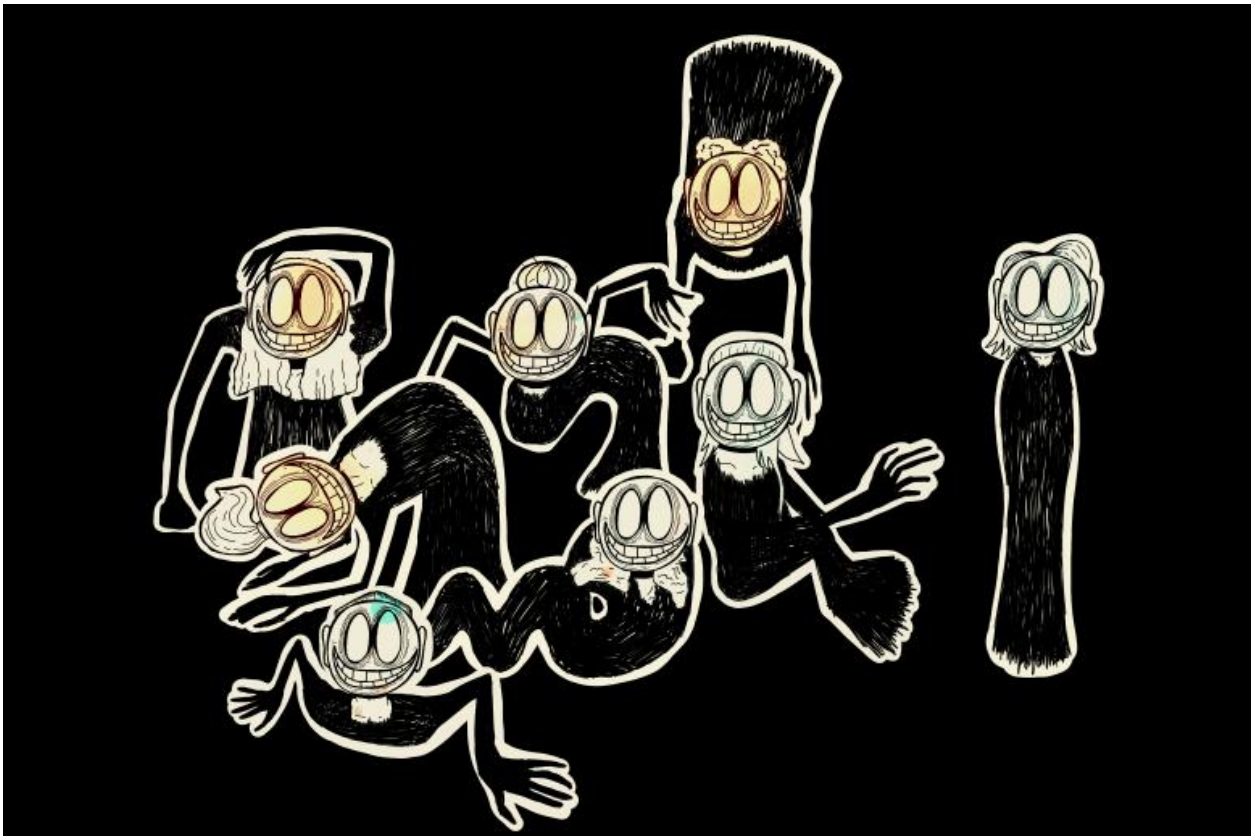
Assets and Mock-Ups


GOOD LUCK
UR GONNA NEED IT

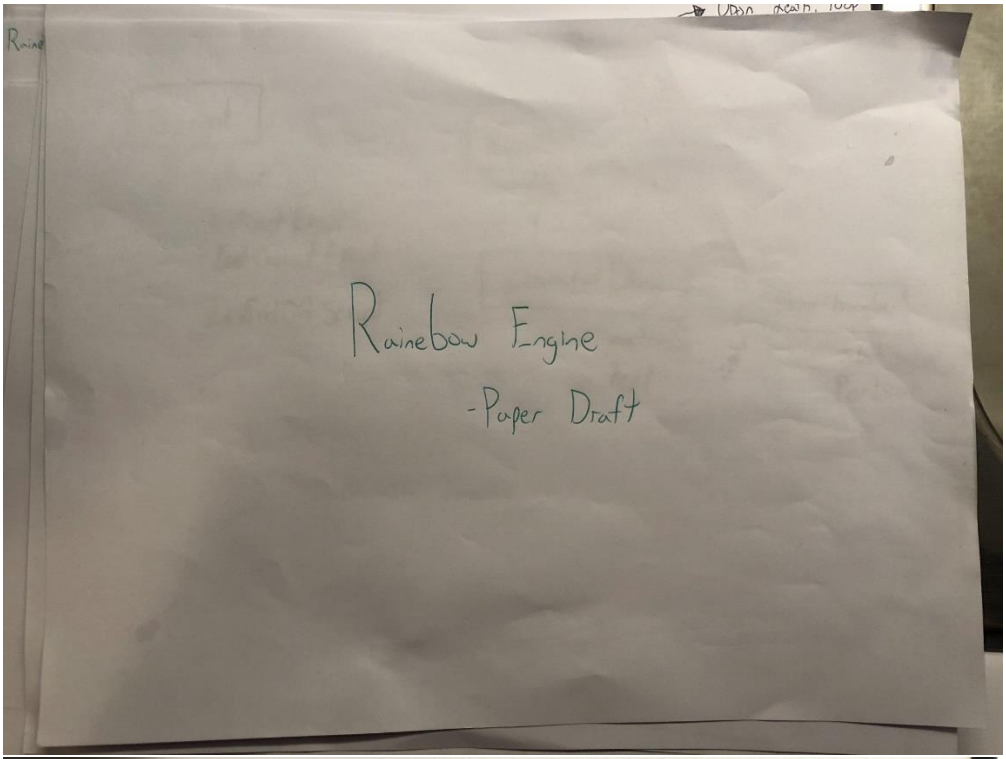

ZEN
NOODLES

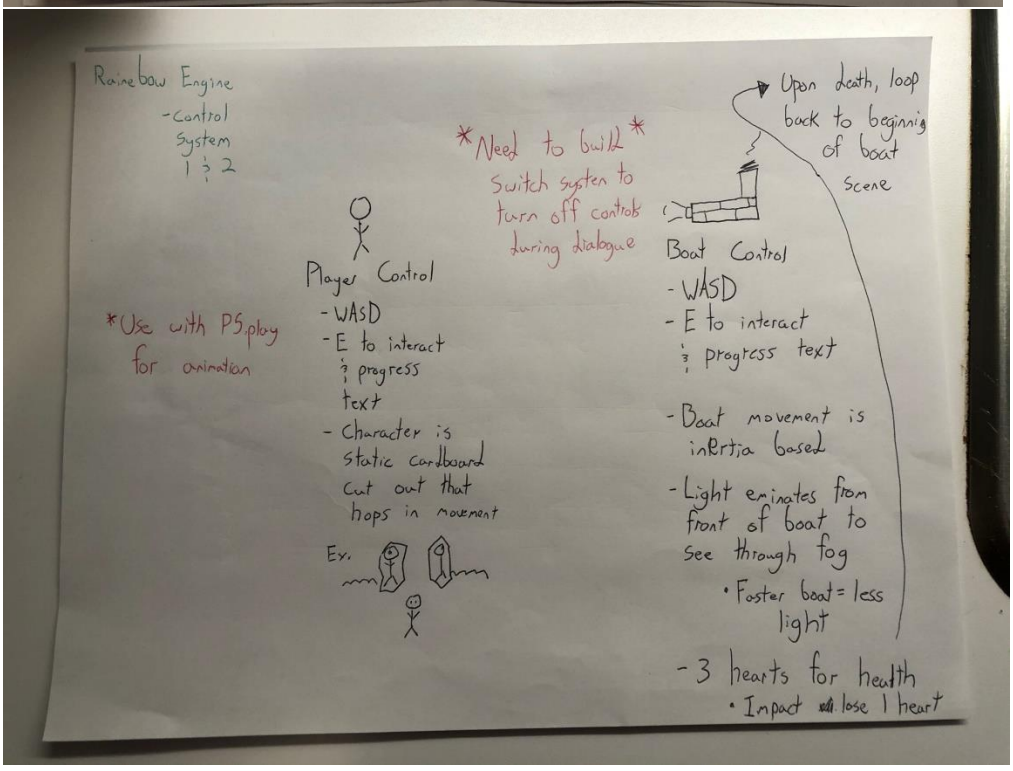


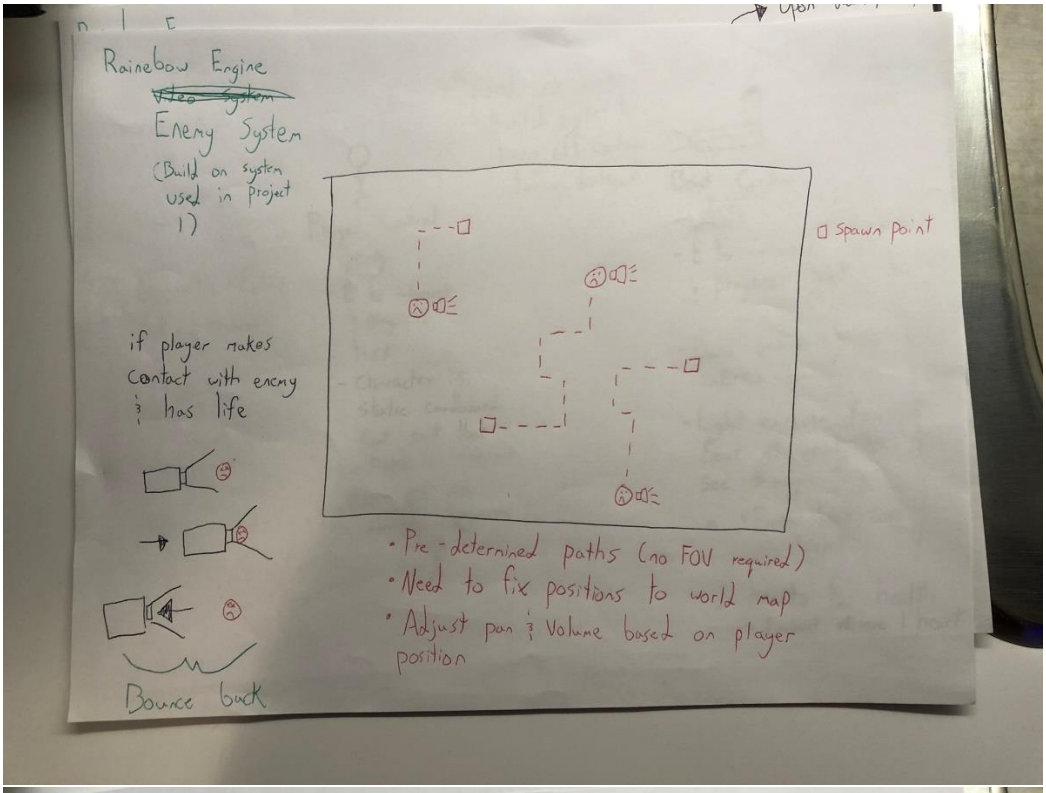

IN PROGRESS KEY ART:CHLOE

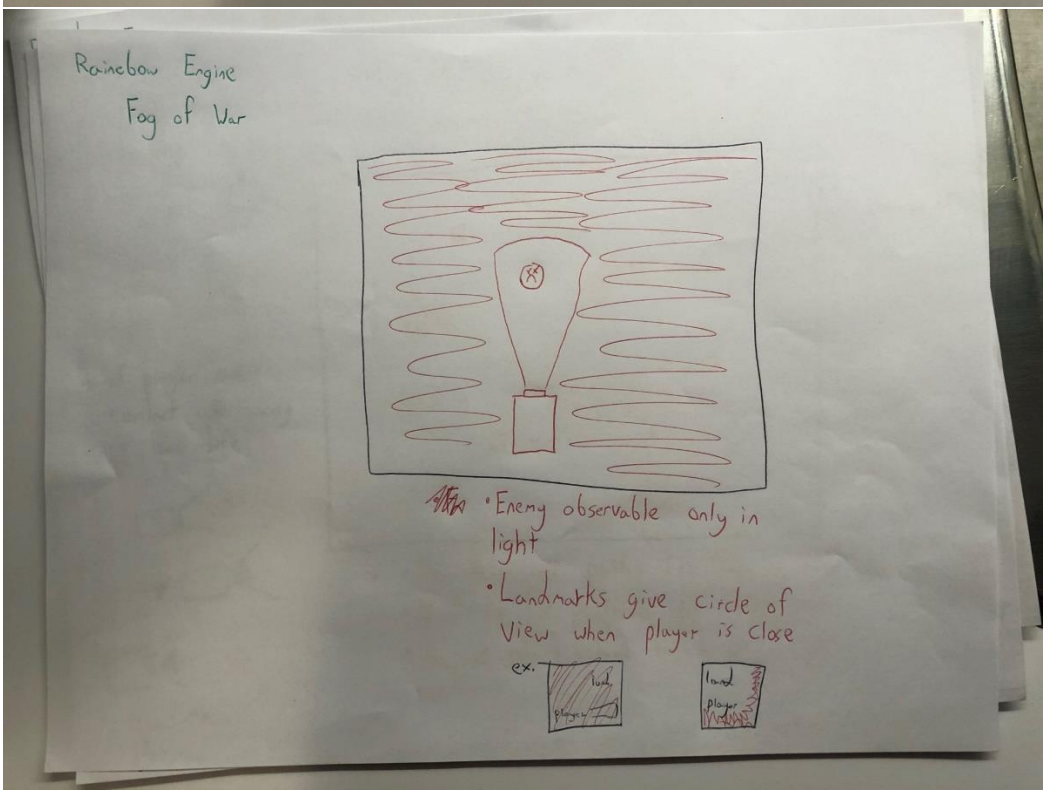


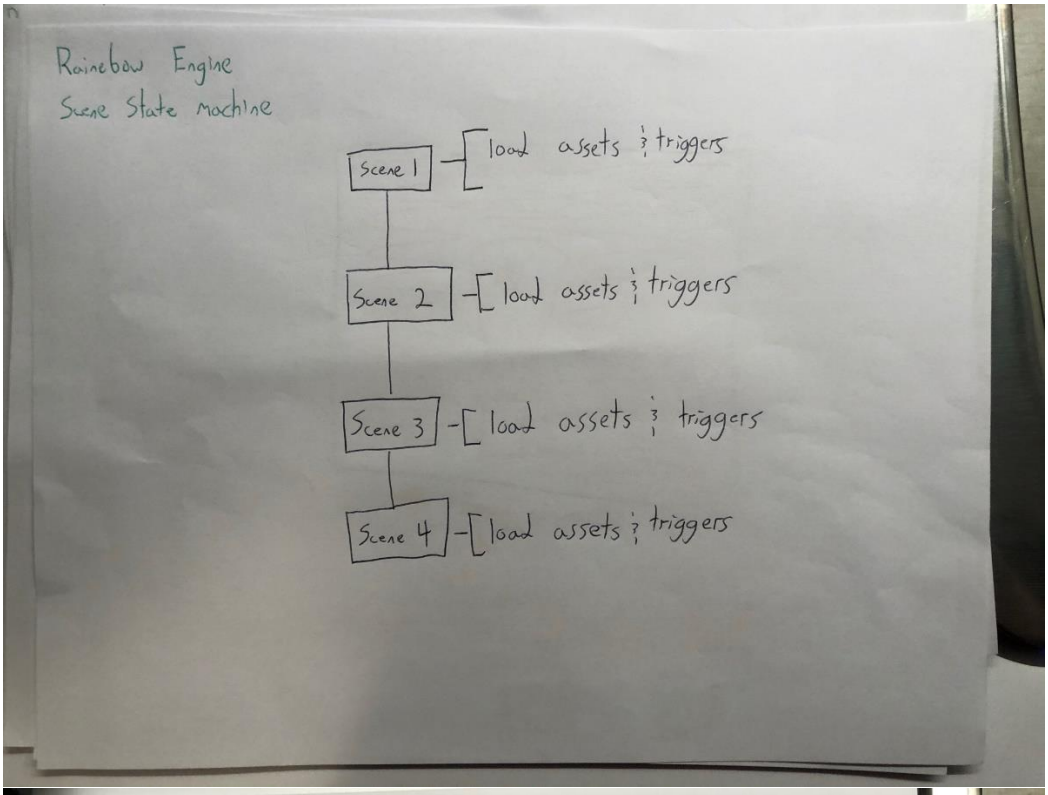
Technical Papers

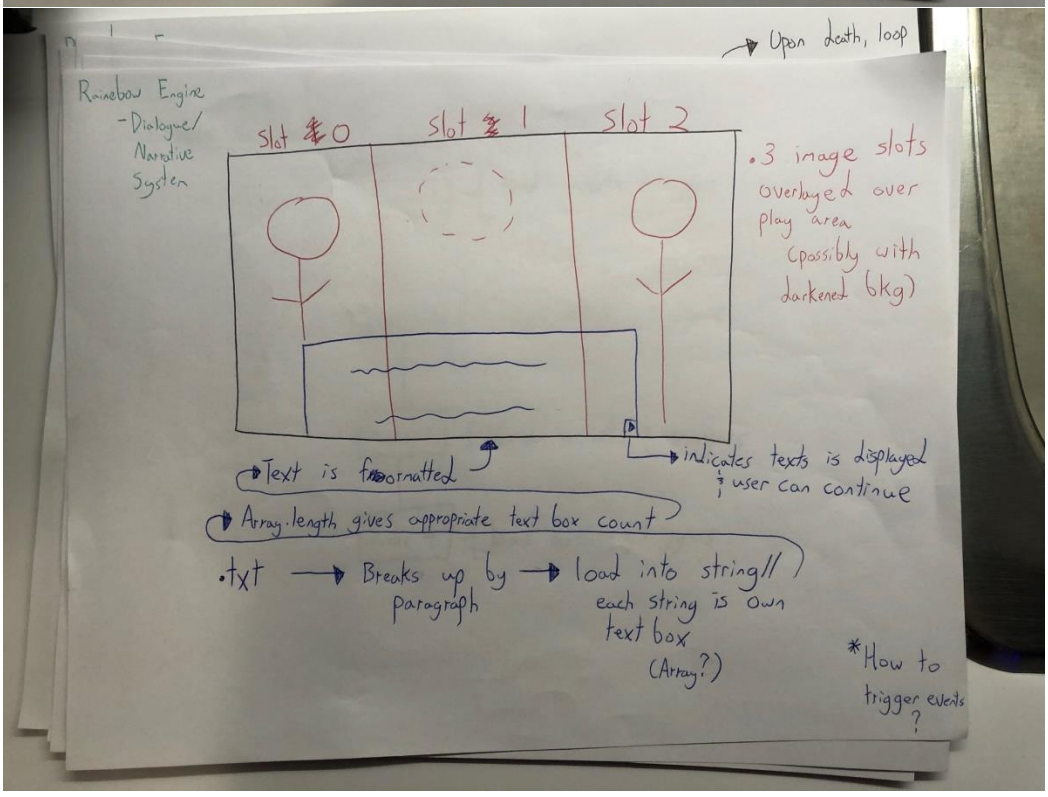

Rainebow Engine
-Paper Draft

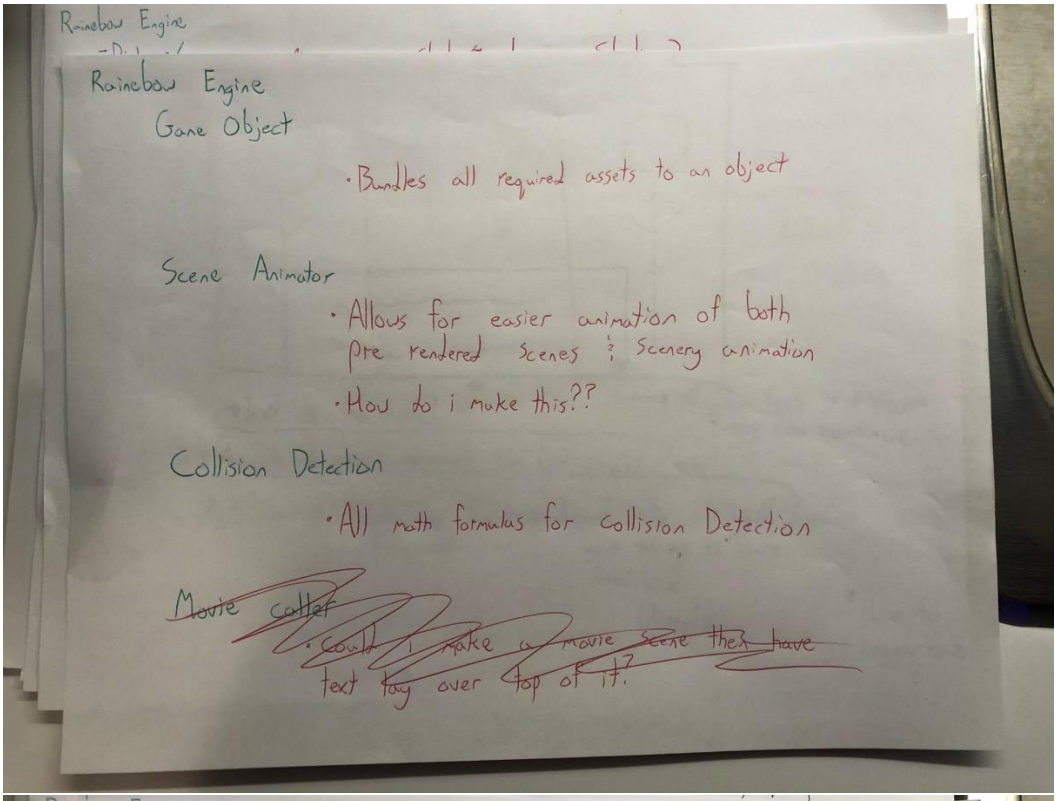

Rainebow Engine
-Control System 1 & 2
Need to build Switch system to turn off controls during dialogue
Upon death, loop back to beginning of boat scene
Player Control
- WASD
- E to interact & progress text
- Character is static cardboard cut out that hops in movement
Ex.
*Use with PS play for animation
Boat Control
- WASD
- E to interact & progress text
- Boat movement is inertia based
- Light emates from front of boat to see through fog
• Faster boat = less light
- 3 hearts for health
• Impact will lose 1 heart

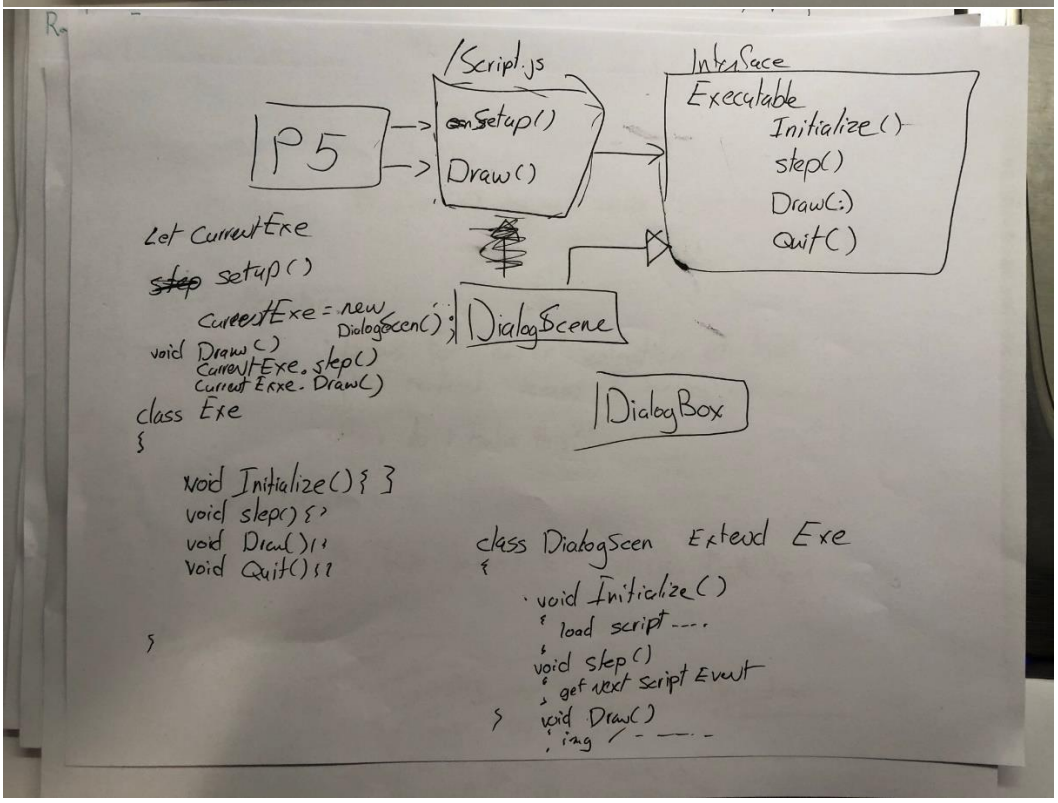

Rainbow Engine
~~Video System~~
Enemy System
(Build on system used in project 1)
if player makes contact with enemy & has life
Bounce back
Spawn point
• Pre-determined paths (no FOV required)
• Need to fix positions to world map
• Adjust pan & Volume based on player position

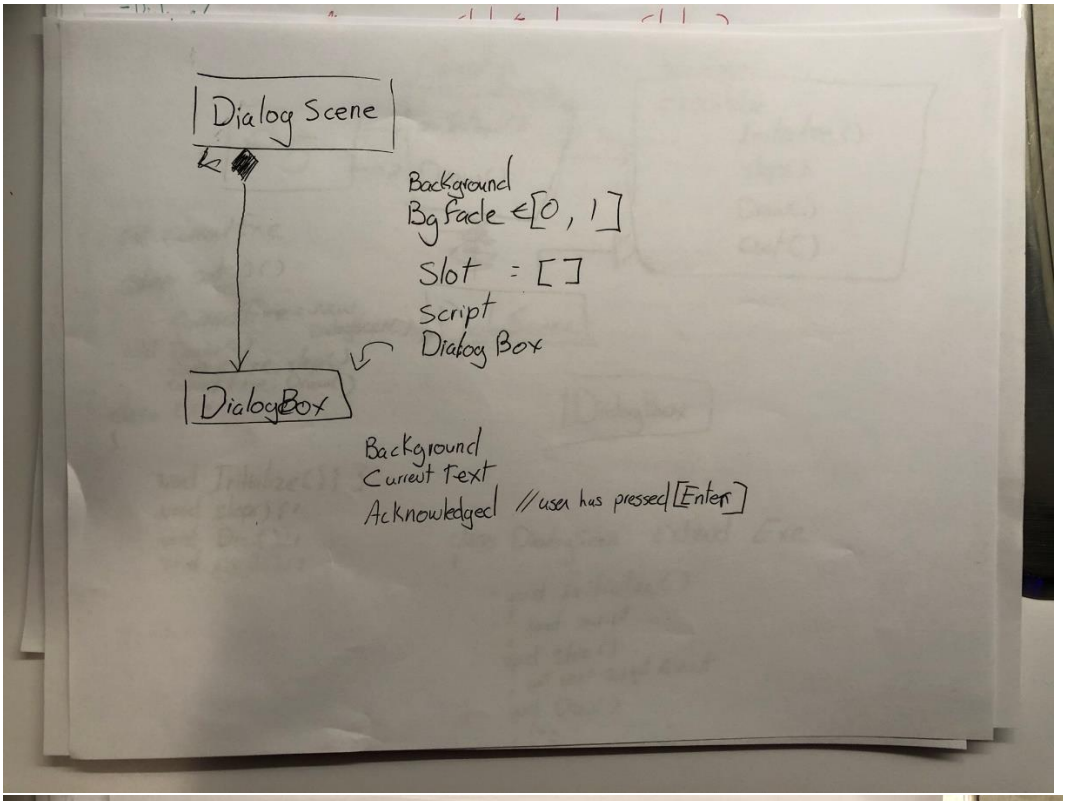

Rainbow Engine
Fog of War
• Enemy observable only in light
• Landmarks give circle of view when player is close
ex.

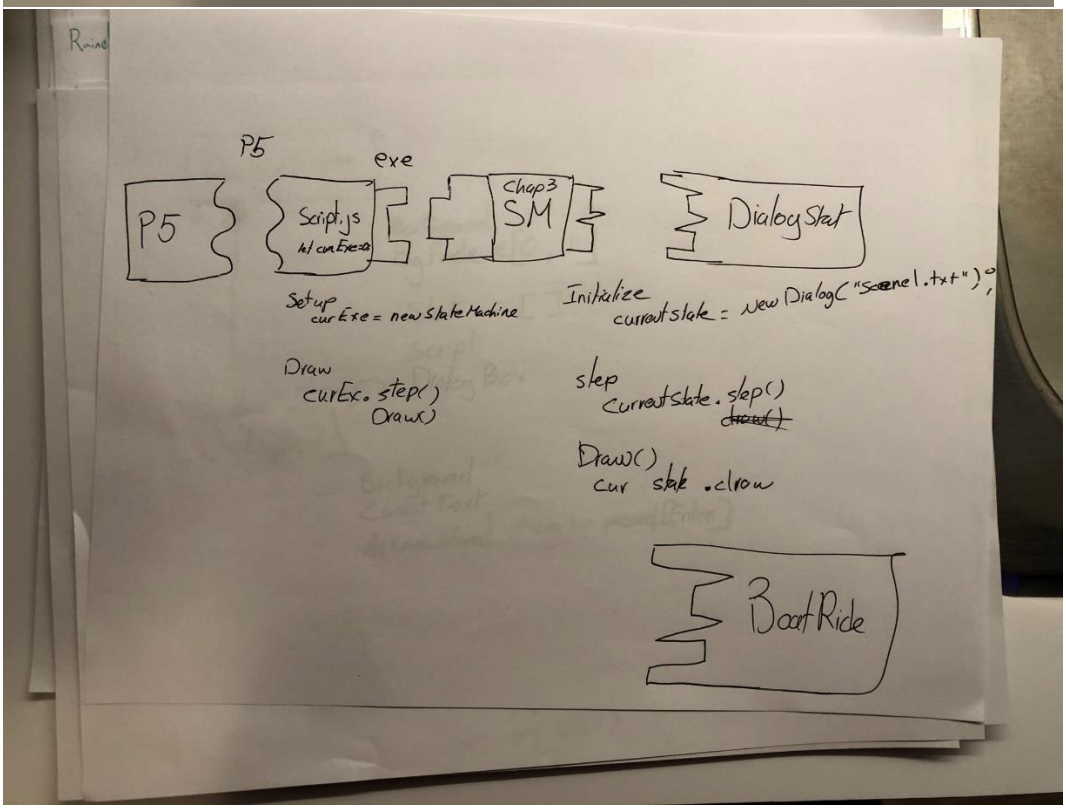

Rainebow Engine
Scene State machine
Scene 1
load assets ; triggers
Scene 2
load assets ; triggers
Scene 3
load assets ; triggers
Scene 4
load assets ; triggers

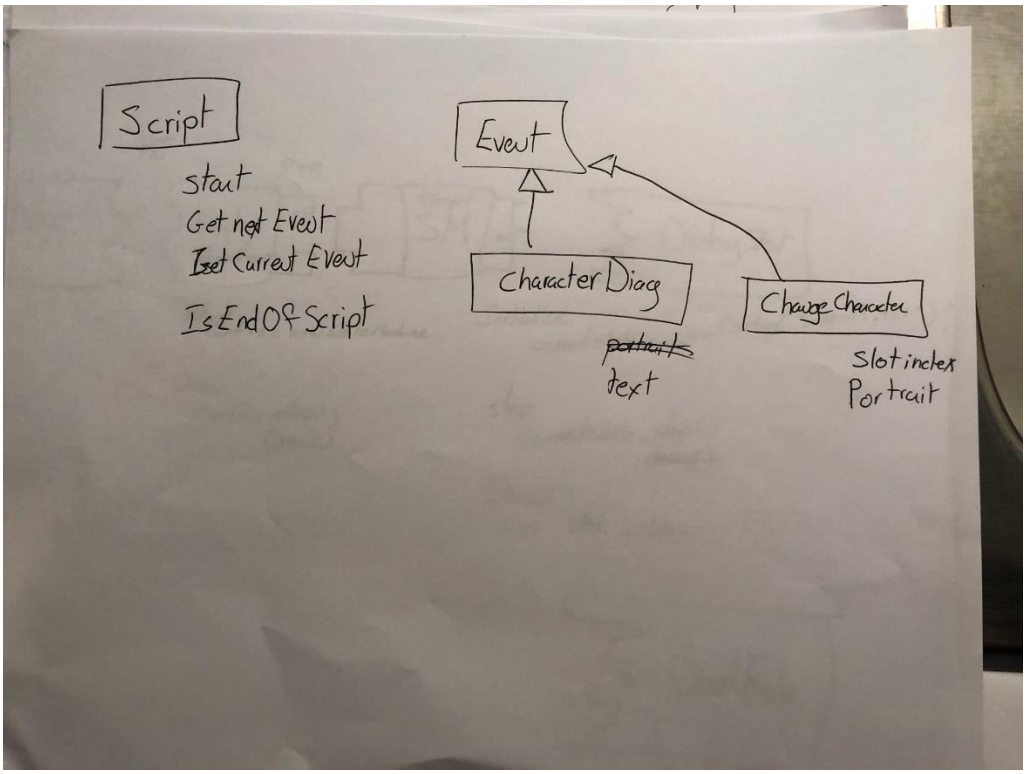

Upon death, loop
Rainebow Engine
- Dialogue/
Narrative
System
slot 0
slot 1
slot 2
• 3 image slots overlayed over play area (possibly with darkened bkg)
Text is formatted
indicates texts is displayed ; user can continue
Array.length gives appropriate text box count
.txt → Breaks up by paragraph → load into string// each string is own text box (Array?)
*How to trigger events?


Rainebow Engine
Rainebow Engine
Game Object
• Bundles all required assets to an object
Scene Animator
• Allows for easier animation of both pre rendered scenes & scenery animation
• How do i make this??
Collision Detection
• All math formulas for collision Detection
Movie cutter
• could i make a movie scene then have text play over top of it?


/Script.js
onSetup()
Draw()
P5
IntroSace
Executable
Initialize()
step()
Draw()
Quit()
let currentExe
setup()
currentExe = new DialogScen();
DialogScene
void Draw()
currentExe.step()
currentExe.Draw()
DialogBox
class Exe
{
void Initialize(){ }
void step(){}
void Draw(){}
Void Quit(){}
}
class DialogScen Extend Exe
{
void Initialize()
load script....
void step()
get next script Event
void Draw()
img


Dialog Scene
Background
BgFade ∈ [0, 1]
Slot = []
Script
DialogBox
DialogBox
Background
Current Text
Acknowledged // user has pressed [Enter]


P5
exe
P5
Script.js
Chap3
SM
DialogStat
Setup
curExe = new StateMachine
Initialize
currentState = new DialogC("scene1.txt");
Draw
curEx.step()
Draw()
step
currentState.step()
Draw()
cur state .draw
BootRide


Script
start
Get next Event
~~I~~set Current Event
Is End Of Script
Event
Character Diacg
~~portrait~~
text
Change Character
Slot index
Portrait