

Heat

DESIGN DOCUMENT

By Liam May for Pirate Software's Game Jam 14

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Introduction

Game Summary Pitch

Heat is a platformer with a focus on running away from an enemy as well as running towards an objective.

Inspiration

Super Meat Boy

Super Meat Boy is a platformer with hazardous obstacles and maps that require precise movement like many others, but the movement speed in this game is considered above average.

Osu!

Osu is a rhythm game that offers different game modes to play along to the songs with. This game will draw inspiration mostly from their original game mode, also titled Osu. This game mode has you move the cursor to circles on the screen that appear and disappear as mapped to the rhythm of the song. The player must keep up with the songs and precisely position and click as the map instructs in order to pass the map and get a favorable score.

Player Experience

The game will have 15 levels of increasing difficulty. New obstacles and surfaces will be introduced up to level 8. The player will need to improve control and timing to complete each level. The remaining levels will increase in difficulty more rapidly without new mechanics introduced.

Platform

This game is developed to be released on Windows PC.

Development Software

- Gamemaker Studio version 2.3 for programming
- Aseprite for graphics and UI
- FL Studio 12 for all music and SFX

Genre

2D, fast-paced, precision platformer

Target Audience

2D platformers are among the most approachable of video game genres, so I believe that even with an emphasis on precision and difficulty, this game will be appealing to [beginning and casual gamers](#) while still being enjoyable for the veterans to compete for high scores.

Concept

Gameplay Overview

The player controls a player avatar that [moves where the cursor points](#) rather than an analog stick or wasd sum. To move the avatar, the player must press the [x key](#) for a normal jump or [z key](#) for a long jump. This type of gameplay will encourage [planned as well as speedy](#) gameplay.

Theme Interpretation

'Spreading' interpretation - The player must outrun a growing calamity to stay alive and win the game.

Where normally the challenge of a platformer lies entirely in your ability to execute difficult maneuvers, the 'spreading' will add to that challenge by punishing the player if they do not clear the area before the calamity gets there.

Primary Mechanics

<u>Walls</u> Walls will contain the space that the player can navigate as well as allow unique movement like stopping, slow descent, and a place to jump off of.	
<u>Jump</u> Jumping will allow the player to travel a consistent distance in the y direction as well as a distance in the x direction depending on the speed the player is already moving in that direction. The shape of the jump will be in an arc and is meant to be easier to control.	
<u>Long Jump</u> The long jump will allow the player to travel a consistent but greater distance in both the x and y directions. The player will launch towards the cursor in a straight line and the distance traveled cannot be changed by any	

inputs.	
<u>Wall Jump</u> A wall jump will allow the player to jump off of walls.	
<u>Void</u> The void will continuously chase the player. The speed at which the void chases the player will increase between levels but not change while in a level. If the void catches the player, this triggers a fail state.	
<u>Breaches</u> Breaches are stationary obstacles that kill a player on contact.	

Secondary Mechanics

<u>Air Locks</u> When a player finds a button or panel that activates an air lock, it closes a door that renders a breach harmless.	
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Art



Theme Interpretation

Because I decided to make a space themed game for the ‘spreading’ theme, I thought a dark and cool color palette would fit most people’s vision of space. I also wanted to follow the tradition of reserved and simple art in 2D games and so decided to limit the color palette to the five colors present in the headers of this document.

Design

I anticipate that implementing features will be the most time consuming challenge of this project for the sake of maintaining project scope. My goal for the visual design of the levels will be simple, but elegant art. The background will be the interior of the ship so a simple flat background would be best.

Audio

Music

I am a heavy believer that bass and percussion can be the most powerful tools in immersing a player when the timing is right. I fully intend to make bass and percussion heavy tracks in the latter half of the game. For the former, I associate space with synthwave and think this is the best tool to ease a player in while they are focused on learning mechanics more than they are on atmosphere. Finally, for the resolution of the game, when the player feels the most confident in their skills, I think brass paired with percussion would mix perfectly with the high of beating a challenge.

Sound Effects

I plan to continue the trend of traditional simplicity in 2D games with the sound effects as well. Synth notes will be the sound effects which would pair well with the planned soundtrack.

Game Experience

UI

The UI must have a color palette and screen resolution consistent with all other aspects of the game.

Controls

Mouse / XZ

Development Timeline

Minimum Viable Product

#	Assignment	Type	Status	Finish By	Notes
1	Design Document	Other ▾	In progress ▾	Feb 7, 2024	
2	Create Player and Wall Assets	Art ▾	Not started ▾	Feb 10, 2024	
3	Main Menu Theme	Audio ▾	Not started ▾	Feb 10, 2024	
4	UI / Main Menu	Coding ▾	Not started ▾	Feb 10, 2024	
5	Level Theme	Audio ▾	Not started ▾	Feb 10, 2024	
6	Simple Player Movement	Coding ▾	Not started ▾	Feb 10, 2024	
7	Complex Player Movement	Coding ▾	Not started ▾	Feb 10, 2024	

#	Assignment	Type	Status	Finish By	Notes
8	The Void and Breaches	Coding ▾	Not started ▾	Feb 10, 2024	
9	Special Effects	Art ▾	Not started ▾	Feb 12, 2024	
10	Player animation	Art ▾	Not started ▾	Feb 12, 2024	
11	Sound Effects	Audio ▾	Not started ▾	Feb 12, 2024	
12	Pause Menu	Coding ▾	Not started ▾	Feb 13, 2024	
13	Level Select Menu	Coding ▾	Not started ▾	Feb 13, 2024	
14	Level Design 1 - 7	Other ▾	Not started ▾	Feb 17, 2024	
15	Level Design 8 - 15	Other ▾	Not started ▾	Feb 20, 2024	
16	Polish and Submit	Other ▾	Not started ▾	Feb 21, 2024	

Beyond

Survivors	Coding ▾	Not started ▾	There would be NPCs on some maps that, if contacted by the player, would mirror their movements with a small delay. The survivor would die if the player died or if they came into contact with an obstacle. If the level is completed with a survivor, the player would receive a greater score
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