

Lumen

GAME DESIGN DOCUMENT

By Chotto Inc & Pink_Pumpkin for the 2024 Pirate Software Game Jam

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Introduction

Game Summary Pitch

Lumen is a platformer game about collecting fireflies of different colors to combine and bring back to light and life the secondary characters of forgotten tales, and keeping your inner light lit.

Inspiration

Super Mario Bros.

Super Mario gameplay is **straightforward** but can test players' ability and patience. You run and jump through **a gauntlet of different platforms**, with collectibles and power-ups to help along the way, with the **ultimate goal of saving** the princess. It is the *main inspiration for our game's style and graphics*.



Wetory

Mood-wise, Wetory served as an interesting inspiration in terms of **shadows of abandonment** and colorless life. The child hero of Wetory found himself alone, forgotten by those around him in a grim world that he must save with **the power of the colors**.



Disney Villainous

The **narrative choice** of secondary characters of tales draws directly from the board RPG Villainous, where the **villains become the main** and only characters with no space for sweet princesses and Prince Charming.



Player Experience

In a platformer world of **5 maps**, the player will move around in a dark gauntlet to collect fireflies. The player must learn how to master movement and manage time to interact with the world to pass through each map and fulfill the game's ultimate goal.

Platform

The game is developed to be released on Windows PC

Development Software

- Unity v. 2023.1.13f1 for programming
- Microsoft Visual Studio for coding
- Photoshop for graphics and UI
- Udacity for all music and SFX

Genre

Single-player, platform, cozy, adventure

Target Audience

Mechanics are easy to learn and intuitive to grasp with increasing difficulty, making the game perfect for new and veteran **platform lovers**, and anyone looking for cozy gameplay.

Concept

Gameplay overview

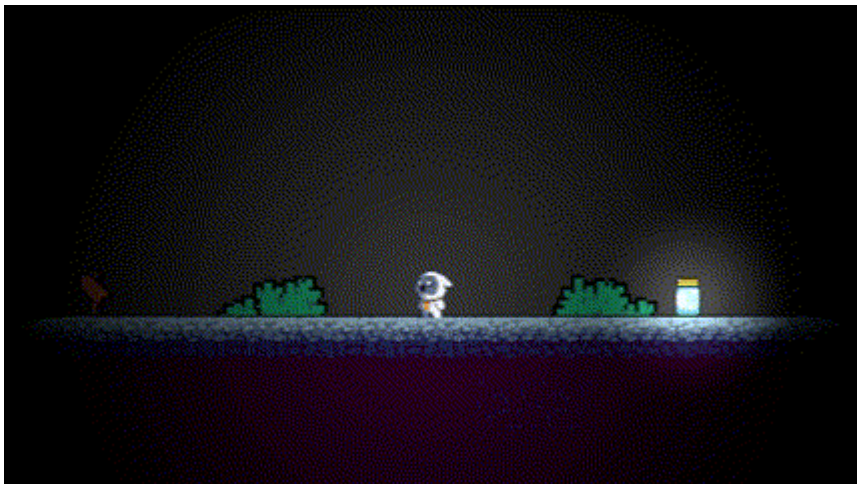
The platformer maps are **in the dark** and scattered with white and colorful fireflies for the player to collect. The player has a temporary halo around themselves to illuminate the path and must reach the jar checkpoints to keep this light lit. Failure to reach the next jar within the halo time will cause the player to restart from the last one. The colorful fireflies are the true goal of the gameplay as they must be **collected and combined to create new colors**, which will awaken the other characters based on their main palette.

Theme interpretation (Shadows and Alchemy)

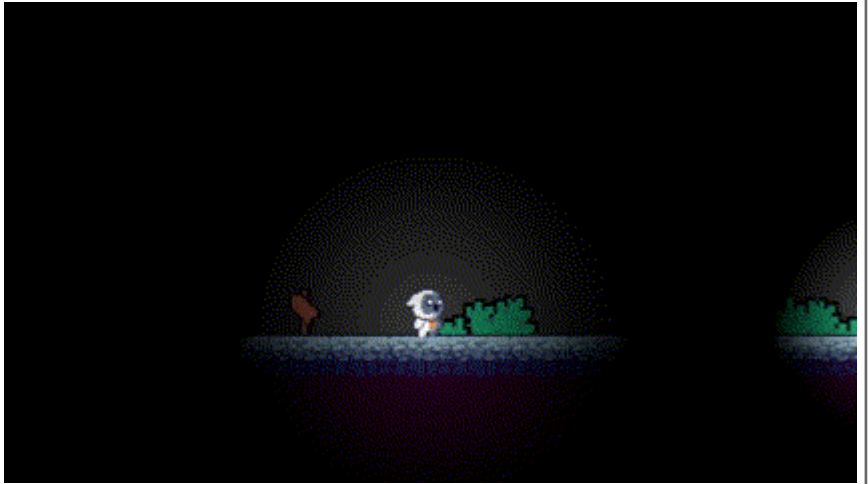
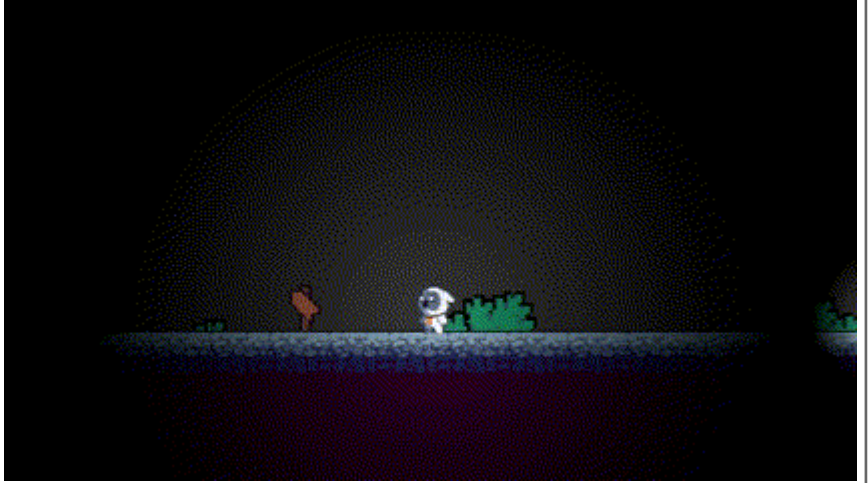
'Shadows and Alchemy' interpretation – **Knowledge** gives the player an inner light to find the right path in a dark world where their friends have fallen into the **shadows of oblivion**. Colors are the light that keeps memory alive, and **different combinations renew vitality**.

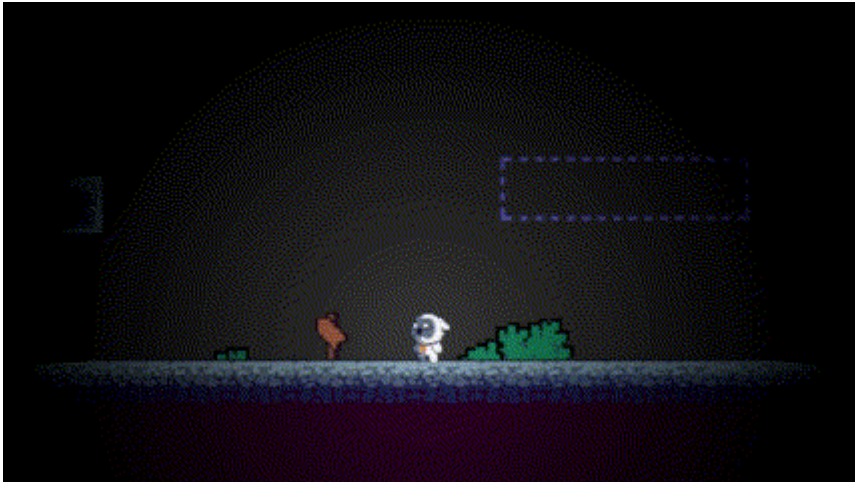
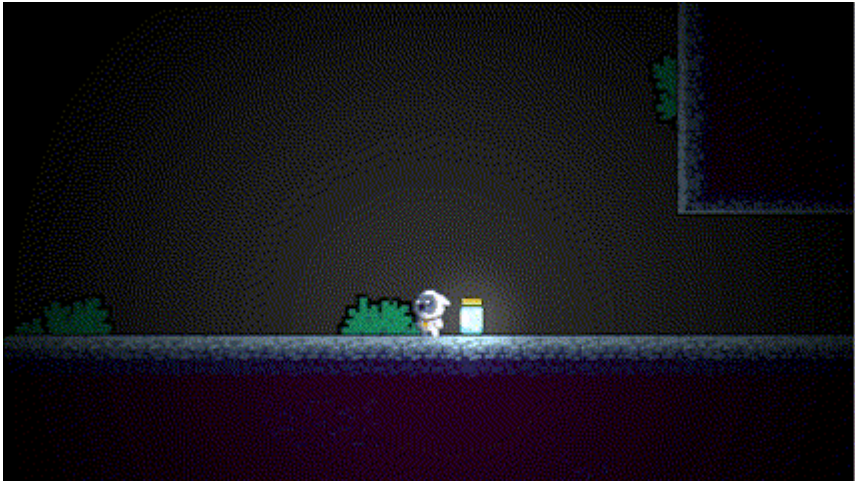
Game-wise the shadows embrace with mist the forgotten characters, hiding them from our sight and memory. Additionally, shadows keep the maps in the dark, making it more difficult for the player to proceed – it will only be thanks to their inner light that the right path will unfold. The collectible fireflies scattered across the maps have **different colors that must be combined to create new ones and re-spark the vitality of the characters that fell into oblivion** so that they can once again be remembered and live their stories.

Primary Core Mechanics

Mechanic	Animated Mockup
Jump A quick and upward movement to reach a platform above the player's position.	

Secondary Core Mechanics

Mechanic	Animated Mockup
Jar Checkpoint If the light of the player fades, getting close to a jar will recharge it. If the light goes off, they will restart from the last jar visited.	 A screenshot from a game showing a character with a light source in a dark environment, approaching a jar.
Dash A very fast movement to step on a distant platform.	 A screenshot from a game showing a character with a light source in a dark environment, performing a dash movement.

Mechanic	Animated Mockup
Neon Vision Player can see platforms otherwise invisible in the dark for a short period.	
Gravity Player can toggle an upside-down movement to reach a specific location on the map.	

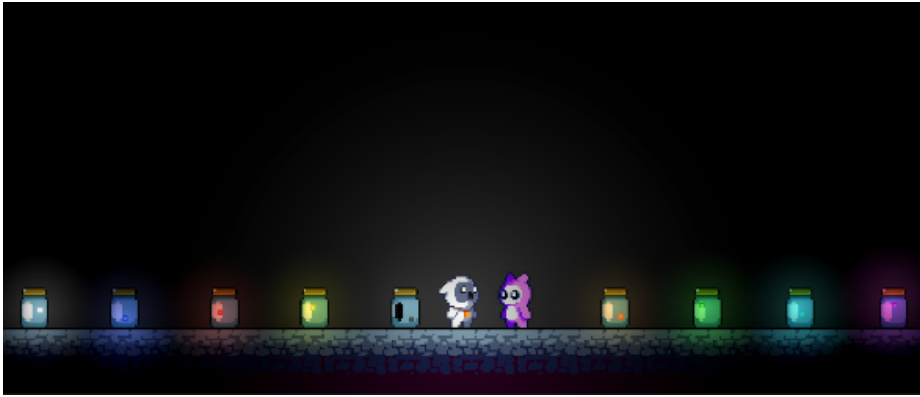
Art

Theme Interpretation

Grayscale conveys shadows, pierced by the **vibrant colors** of the fireflies that give vitality.

Design

The super **cozy pixel art** style is based on black and white contrast with colors.



(Actual in-game scene)

Audio

Music

Retro platformer style; ambient, could be fast-paced but never annoying. Vibe with game mood.

Sound Effects

Retro arcade sound effects give weight and feedback to the player's actions.

Game Experience

UI

Very concise, just for core settings; player won't spend much time in it.

Controls

Keyboard

Gamepad (Xbox 360)

Development Timeline

#	Assignment	Type	Status	Finish By	Notes
1	Game Design Document	Other	Finished	Jul 29, 2024	
2	Game world and characters' assets	Art	Finished	Jul 21, 2024	License-free pixel art
3	Level design (0)	Coding	Finished	Jul 21, 2024	Room for colors and characters' interactions
4	Special effects	Art	Finished	Jul 21, 2024	Dust particles, fog
5	Level design (1)	Coding	Finished	Jul 22, 2024	Platforms, collectibles
6	Simple player movement	Coding	Finished	Jul 22, 2024	Jump
7	Level design (2)	Coding	Finished	Jul 23, 2024	Platforms, collectibles
8	Complex player movement	Coding	Finished	Jul 23, 2024	Dash power-up

#	Assignment	Type	Status	Finish By	Notes
9	Firefly interaction/color mix	Coding	Finished	Jul 24, 2024	Mixing animation and interaction with NPCs
10	Dialogues / UI	Writing	Finished	Jul 24, 2024	Main and pause menus; player and NPC lines
11	Level design (3)	Coding	Finished	Jul 25, 2024	Platforms, collectibles
12	Complex player movement	Coding	Finished	Jul 25, 2024	Neon Vision power-up
13	Level design (4)	Coding	Finished	Jul 25, 2024	Platforms, collectibles
14	Complex player movement	Coding	Finished	Jul 25, 2024	Gravity power-up
15	UI / Main menu / Pause menu	Coding	Finished	Jul 26, 2024	-
16	Dialogues / UI	Coding	Finished	Jul 26, 2024	-
17	Sound effects	Audio	Finished	Jul 26, 2024	Player movement, UI
18	Level theme	Audio	Finished	Jul 27, 2024	Background music
18	D-pad controls	Coding	Finished	Jul 27, 2024	-
19	Any extra polish	Other	Finished	Jul 27, 2024	-
20	Final QA / debugging	Coding	Finished	Jul 28, 2024	-
21	SUBMIT	Other	Finished	Jul 28, 2024	-