Mitzy Makes It

GAME DESIGN DOCUMENT

By Team Cabbage Code for Pirate Software Game Jam 15
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Mitzy Makes It

Introduction

Game Summary Pitch

"Mitzy Makes It" is a tricky platformer where you play as a quick-launching jumping spider with a simple, yet challenging control style. Enjoy original pixel art, along with moody visual effects and retro-inspired original music that synchronizes with changes in the weather.

Inspirations

Doodle Jump

Our first draft with a lot of inspiration from doodle jump

Doodle Jump was our original inspiration for a cute endless jumping game with enemies, differing platform types and more. Over time, the design of our game changed further from this type of game.

Jump King

This is probably the most common example of a difficult game with precise charged jumps, and unforgiving consequences when you miss.

The Itsy-Bitsy Spider

Our original theme idea was for an itsy-bitsy spider jumping up a water spout with rain pushing it back down. We moved away from "direct" references to this, but kept the spider and the rain.

Player Experience

In a diagonal-advancing level, the player is faced with performing increasingly difficult jumping maneuvers to gather power-ups and progress from platform to platform. It's easy to be swept away by the running water along the bottom of the level if you're not careful! Controlling this game can be tricky at first, but with a charmingly dark vibe and groovy original retro music, we bet you're going to want to keep trying to make it to the finish line!

Platform

This game is intended for release on web browser (itch.io).

Development Software

- Godot Engine v4.3 for programming
- Aseprite and Krita for graphics and UI elements
- Deflemask and Reaper for all music and SFX

Genre

Singleplayer, platformer, roguelike, Foddian.

Target Audience

Gamers looking for a simple, yet challenging game with a unique vibe and some character.

Concept

Gameplay overview

The core gameplay loop consists of Mitzy the spider performing precise jumps onto platforms and obtaining useful power-ups to help against the elements. While traversing from platform to platform, varying levels of rain will push back on Mitzy, giving each jump a palpable sense of danger. If at any point Mitzy falls, a powerful flow of rainwater beneath will sweep Mitzy away and players will need to try again.
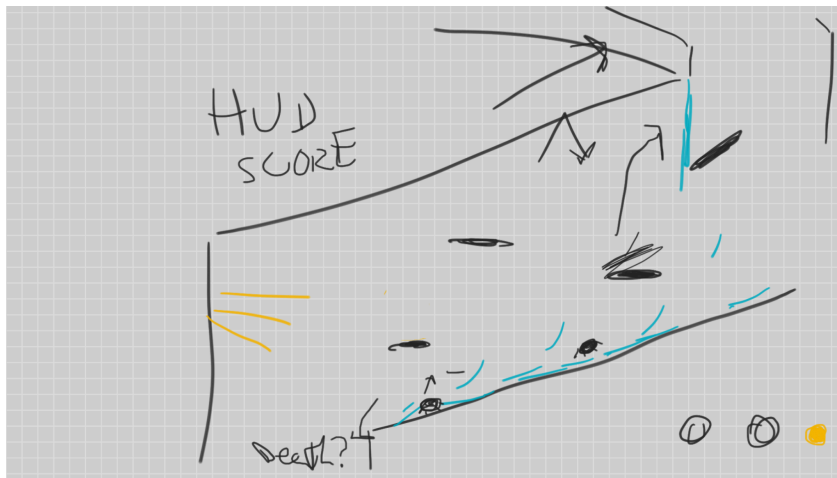
Initial concept art

Theme Interpretation: Shadows And Alchemy

Shadows - *There is no shadow without light. The player will fight through periodic rainstorms where the environment darkens and the rain pushes Mitzy back more and more. Collect five sun gems, however, and you'll be able to call on your buddy Ray's sun power to clear up the rain and darkness.*

Alchemy - *Change and discovery through infusion of gameplay elements. The gameplay experience as a whole is designed to transform continuously*

with changes to light, ambient rain sounds, and musical sections when power-ups are activated or weather turns for the worse.

Primary Mechanics

- <u>Charged Jumps</u>
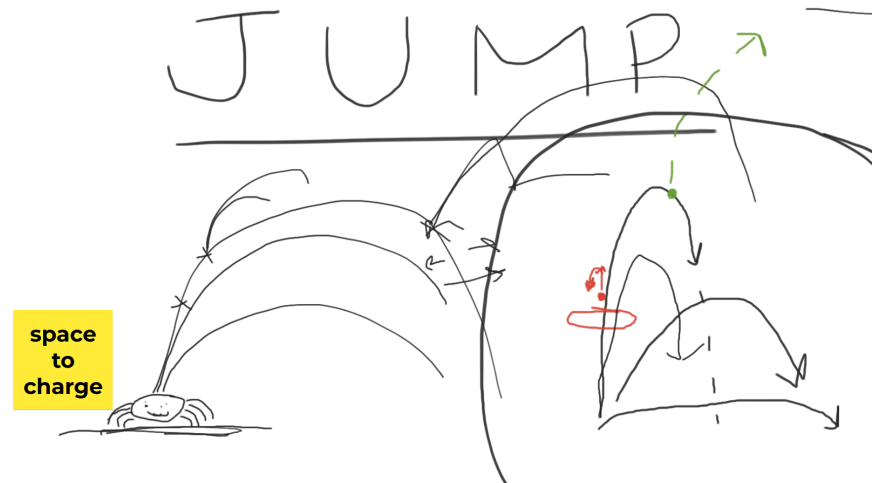
Design concepts for how charged jumps at different angles might work

- <u>Double Jump</u>
  - Difficult to aim/charge while flying through the air.
- <u>Rain</u>
  - 4 rain levels (none, light, normal, and heavy).
  - Rain pushes the spider backwards on platforms and pushes you back in the air.
- <u>Running Water</u>
  - Missing jumps may cause you to fall into running water at the bottom of the level.
  - This will sweep Mitzy away if the player can't jump out and recover quickly enough.

Secondary Mechanics

- Power-Ups
  - Jump Tokens
    - You always regain one after landing, and up to four more can be stored for later by collecting red "jump token" power-ups.
  - Sun Gems
    - Your friend Ray is able to harness the power of the sun with enough yellow "sun gems" power-ups.
    - Pressing Q after collecting 5 sun gems will dry up the rain and allow you to move and jump more easily.
  - Water Stones
    - Blue "water stone" power-ups will cause Mitzy to not be affected by the running water at the bottom of the level for a short period of time (10s).
- Ballooning (i.e., "floating")
  - You can press shift in air to slowly control your descent for a limited time.

Jumping spider "ballooning"

Art

Theme Interpretation

Shadow is at the core of art design in our game, with a large focus on changes to darkness levels as rain cycles change. Mitzy's buddy Ray (a little ball of sunshine) casts a bit of light on the foreground and background to bring depth to the level, along with other sources of light throughout.

Design

We chose to go with pixel art for the majority of our gameplay assets, supplementing this with in-game lighting and particle effects. HUD and menu elements feature more clean modern elements, and a cute font for easy reading.

Mitzy the cute jumping spider, with complete custom in-game idle, walking, jumping, ballooning, and "death" animations.

Audio

Music

The game's music truly takes the theme of alchemy to heart by interacting directly with game mechanics to enhance the player experience. We're super proud of how much of a "bop" the rainy music theme turned out to be! The music was written in such a way as to evolve directly with the game's cycles of light, medium, and heavy rain, and is already ready for a future game state where it can transition seamlessly between random rain cycles without skipping a beat. The main sunny music theme also triggers seamlessly when players unleash their sun power, returning to the rain theme without skipping a beat when the power expires.

Ambience

Sound design in this game presented a unique challenge of balancing and equalizing inherently noisy layers of rain effects (layered and balanced individually for light, medium, and heavy rain cycles) in such a way as to give the game's music and sound effects a fair space in the mix. This forced us to pay extra attention to how multiple audio sources would combine to create a unified experience that constantly adjusts alongside the gameplay.

Sound Effects

Sound effects were designed using a combination of foley and synthesized sounds. All sound effects were specifically designed to tonally match the auditory aesthetic of the music and ambience.

Game Experience

UI

The HUD will include some higher definition elements, prominently featuring a "jump meter" for users to better understand the charge level of each jump they're making. The HUD will also provide intuitive visual feedback on the game's three power-ups, as well as a run timer and on-screen directional input feedback. Menus will be built out to allow for easy access to basic controls and power-up information, as well as separateMusic/SFX/Ambience volume controls.

Controls

- Keyboard
    - Arrow **keys / WASD / spacebar** to move and jump.
    - Jump strength is controlled by holding the space bar.
    - At jump release, jump angle is determined by directional input.
    - Press Shift to activate "ballooning", allowing the player to float for up to 4 seconds.
    - Press Q to activate your buddy Ray's sun powers (after collecting five sun gems), clearing out the rain and resetting the rain cycle.
    - Press **E** to read a small number of signs placed around the level.

- Gamepad
    - Not currently supported

Development Timeline

MINIMUM VIABLE PRODUCT

#	Assignment	Type	Status	Finish By	Notes
1	Game Design Document	Other ▾	Finished ▾	Jul 30,...	
2	Create Spider Sprite Sheet	Art ▾	Finished ▾	Jul 22,...	
3	Create platform assets	Art ▾	Finished ▾	Jul 24,...	
4	Create wall/boundary assets	Art ▾	Finished ▾	Jul 19,...	
5	Create environment / background art assets	Art ▾	Finished ▾	Jul 28,...	
6	Main menu music	Audio ▾	Finished ▾	Jul 22,...	Shorter version of level music
7	Level music	Audio ▾	Finished ▾	Jul 27,...	Long looping track with layers
8	Sound effects	Audio ▾	Finished ▾	Jul 24,...	Jumping Woosh + Rain Audio
9	UI / Main menu and pause menu	Coding ▾	Finished ▾	Jul 22,...	
10	UI / HUD	Coding ▾	Finished ▾	Jul 28,...	Power Up Meters
11	Player movement mechanics	Coding ▾	Finished ▾	Jul 21,...	Basic Jumping Movement
12	Powerups/abilities	Coding ▾	Finished ▾	Jul 25,...	Double Jump/Kiting/Collect power ups
13	Rain/River Physics	Coding ▾	Finished ▾	Jul 24,...	Rain + River Physics
14	Music layer interaction with gameplay	Art ▾	Finished ▾	Jul 28,...	Finalize music with rain/sun loops
16	Rain particle effects	Coding ▾	Finished ▾	Jul 23,...	Rain Controller
17	Level design	Other ▾	Finished ▾	Jul 28,...	Final Level Design

#	Assignment	Type	Status	Finish By	Notes
18	Any extra polish	Other ▾	Finished ▾	Jul 30,…	Signs/torches/light effects
19	SUBMIT	Other ▾	Finished ▾	Jul 30,…	Create Itch Page and upload

BEYOND (if ahead of schedule / extra time)

Curves in Pipe	Art ▾	Not sta… ▾	
Pausing pauses rain timer	Coding ▾	Not sta… ▾	
Fun extra sprites for spider	Art ▾	Not sta… ▾	
Gamepad support	Coding ▾	Not sta… ▾	
End-of-level score / collectibles summary	Coding ▾	Not sta… ▾	