UMBRA

Overview

UMBRA is a top-down 2D puzzle game about casting shadows. Players switch between controlling a black circle, which casts bright light all around it, and a white circle, which can only survive in the shadows. Players must carefully line up shadows in each level to get the white circle to the goal.

Inspiration

This game was inspired by other puzzle games with straightforward yet highly iterable mechanics. Examples include Portal, Fez, and Baba is You.

Style

I wanted to create a game that feels like walking through an exhibit in a modern art museum - minimalist, spacious, relaxing, sophisticated. I opted for stripped-down visuals consisting solely of geometric shapes and lines. This decision was largely born out of time constraints, but was also inspired by Russian Constructivist artwork from the early 1900s, which frequently featured strong contrast and straight lines accompanied by small touches of color. I wrote the game's music to feel atmospheric and dreamy, inviting players to enter into a state of flow.

Game Mechanics

The player controls two characters, a white circle and a black circle. The black circle emits pure white light in all directions, which casts shadows behind obstacles scattered around the level. The white circle must remain in the shadows at all times. If it steps too far into the light, the level resets.

Levels are built upon the combination of a few factors. First, there is always a red, spinning square somewhere on the screen. The white circle must touch this goal in order to progress to the next level. Second, each level has a set number of times the player can switch between the two characters. Third, some levels use special mechanics and objects. Some feature black barriers that move in regular back-and-forth paths. Some are littered with red, checkered hazards that will reset the level if either character touches them. Other levels include red-outlined, shadow-casting blocks which can be pushed around by the characters. Finally, a handful of levels have red circles that act as secondary sources of light.

Players progress through the game level-by-level. As soon as one level is complete, they are immediately taken to the next. If a player finds a particular level too difficult, they can press a skip button to move on to the next one.

Player Experience

UMBRA's player experience centers around experimentation and lateral thinking. Like many puzzle games, I wanted players to face difficult situations which required them to think outside the box and test new ideas until they finally reached an "aha!" moment.

Core Game Loop

1. The player is presented with a new level.
2. The player analyzes the level's layout and what mechanics are present.
3. The player explores the level via trial and error, cycling through different possible solutions.
4. The player lands on the correct solution and successfully leads the white circle to the goal. Rejoicing ensues.

Postmortem

The Good

1. **Core Concept**
   The core concept for this game is unique and offers plenty of potential for stimulating puzzles.
2. **Puzzle Ideas**
   There are a handful of puzzles whose solutions are outside-the-box enough to produce a strong "aha!" moment. Many of these puzzles would be more surmountable if the game's difficulty curve was kinder.
3. **Skip Button**
   Since this game was made in a rush for a game jam, I was unable to playtest the game very thoroughly. Therefore, I implemented a skip button in case players found any levels too challenging or finicky.

The Bad

1. **Difficulty Curve**
   When I built this game, I mistakenly feared that certain levels would seem "too easy" to the player. Therefore, I made sure the first time every mechanic is introduced, it's paired with a difficult puzzle. In retrospect, I wish I had ramped up the difficulty gradually,

ensuring that players understood the basics of each mechanic before they were tested by a difficult puzzle.

2. **Controls**
   This game uses a WASD control scheme, which leads to fairly finicky movement. In hindsight, I wish I had used point-and-click pathfinding to move the characters. This would have made the game easier to play and would have prompted me to eliminate frustrating mechanics, such as timing-based puzzles.
3. **Physics-Based Box Pushing**
   This game features pushable boxes in certain levels. These boxes rotate and maneuver in unpredictable and frustrating ways when the character moves them. Although I like the idea of moving a box in order to cast additional shadows, I wish I had reworked this mechanic so that the player could move boxes around in a different way (such as dragging them with the mouse).
4. **Visual Clarity**
   The game's minimalistic aesthetic sometimes works against it. For instance, the shadow-casting obstacles in each level are pitch-black, just like their shadows. Therefore, it's often difficult to determine the shape and location of a level's obstacles. For a new player, this adds an unnecessary layer of confusion.

Summary

Despite a clever concept, this game is burdened with several poorly-designed systems, creating too frictional an experience for many first-time players. If I were to remake the game, I would expand the number of levels and thoroughly teach every mechanic before the player is asked to perform difficult solves. I would also rethink the control scheme and redesign levels to make their solutions less reliant on precise positioning. The box mechanic deserves a complete overhaul, as its current physics-based push system severely detracts from the player's ability to experiment smoothly. And the secondary light mechanic is a fun concept, but would have worked much better if the player could position both lights instead of just one.