

## Design Document

### **Fall 2024 Project: Migraine Simulator**

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#### **Gameplay**

This project is a first-person mini-game that simulates and visualizes the conditions of a migraine attack, which the player needs to keep under control with resource management. Players will be on an adventure of sea-cliff climbing, and the goal is to either reach the top of the cliff or the bottom of it. The game contains 3 sets of player status: Pain Level, Sanity, and Health, each responding differently to different medications. Player will excavate, collect, and allocate medical resources during the cliff climbing in order to balance the status. While mitigating the pain, player must maintain good sanity and health to reach a good ending. The game will end when any of the statuses reaches zero or when player reaches the cliff top or bottom.

#### **Theme Description**

This game visualizes and presents the experience of visual migraine to those who may or may not have had such an experience. The game starts with player standing at the middle of the cliff suffering a moderate level of pain. The game allows players to make the decision of climbing up or down as each offers a way to end the game successfully and allows for a change of mind at any time. While the pain level is tied to the altitude of the player's position, sanity, and pain are related to the resources (medications) the player consumed. Two types of medications can be collected/made from raw materials excavated: pain reliever (health- & sanity+) and energizer

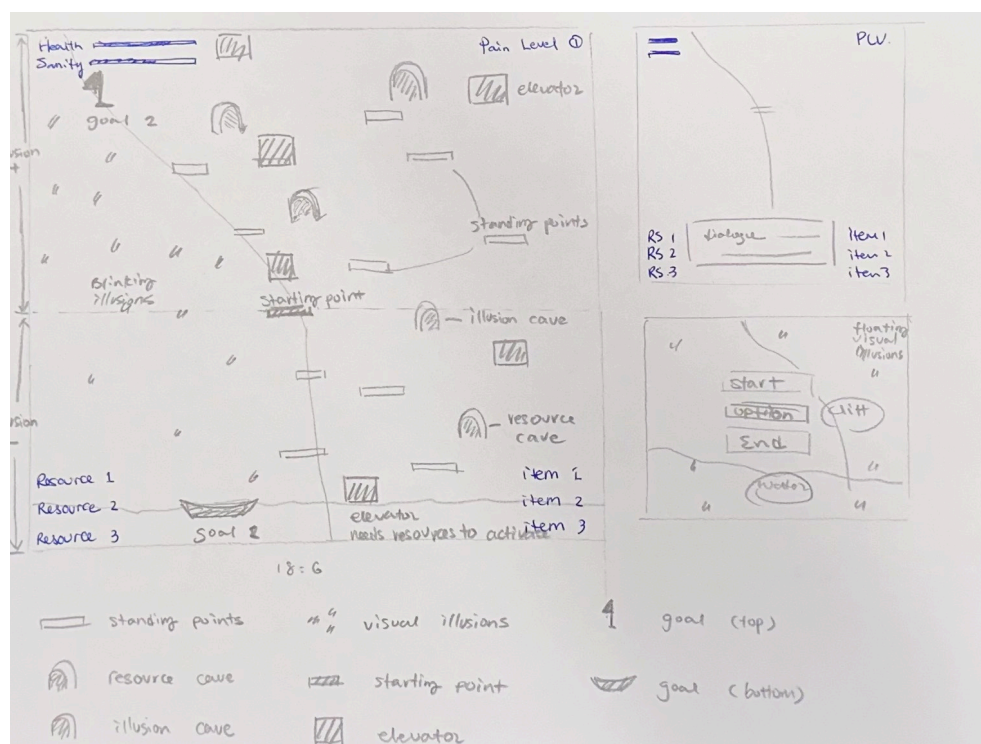
(health+ & sanity). Player can collect resources by excavating the caves, where illusions can appear, disturbing players' excavation. There are a limited number of standing points limiting player's mobility and a limited number of pill-activated elevators that can take players to a higher/lower position that's normally hard to reach. To activate the elevator, player must slip the requisite amount of pills into the elevator slot.

## Visual & Audio Styles

The visual style of the game will be distortive and disruptive as visual migraine is a disabling condition. The graphics will contain realistic 3D objects to set up the scene and surrealistic objects to emulate visual illusions, which will also be emphasized by using light effects and wind zones. Visualizations of surrealistic objects will be more disruptive as the pain level goes up.

The game will use royalty-free dreamcore music as background music. This game will not contain audio for dialogues.

## Interface Sketches



## Timeline

This project starts on March 27th and will have an estimated completion date of May 5th.

In-game systems/items will be completed according to the following schedule:

- April 3rd: Resource system, first-person control, prefab and prefab interactions
- April 10th: landscape (wind zone, water), rough visuals
- April 15th: UI, start/end menu, levels, dialogue
- April 24th: Animation, light and other effects
- May 1st: Sound effects, adjustments
- May 8th: Test-play, Debug

## Anticipation

Low Bar: At a minimum, this project will be completed with a working resource management system that ties with understandable UI changes, rough visualizations, and simple landscapes from asset stores, single background music, some dialogues that guide player behaviors. There will be a starting/ending menu, and the game ends in a single way.

Target Completion: This project will be completed with relatively good self-created visualizations and landscapes, a tuned resource management system that is reflected by a clear UI system and is capable of motivating player actions, interesting sound effects, background music, and dialogues that guide player behaviors and tell the story. Some player actions are animated. There will be a starting/ending menu, and the game ends in multiple ways.

High Bar: This project will be completed with detailed self-created visualizations and landscapes, a well-tuned resource management system that is reflected by a fancy UI system and

is capable of motivating player actions, interesting sound effects, more than one background music that changes according to player behaviors, and well-written dialogues that guide player behaviors and tell the story. Interactions between the player and items are fully animated. There will be a well-made starting/ending menu with animated backgrounds and sound effects, and the game ends in multiple ways with individual ending scenes.