Elementally

1. Game Overview

Game Genre: Puzzle

Elevator Pitch

Elementally is a puzzle game inspired by M.C. Escher and the three elements of nature. Manipulate the illusional maze to reach the destination while collecting artifacts from each level. The collected artifacts can trigger different mechanisms like rotation gears and sliding objects at each level which will help arrange isometric blocks. The correct arrangement of blocks will pave a way to the destination and help in collecting one of the three elements. Players must solve all the puzzles in order to collect all the elements of the earth.

Goal

Logically arrange isometric blocks in each level by solving the illusion to reach the destination and collect an element.

Similar Games

1.   Monument Valley
2.   Cursivity
3.   Hocus
4.   Where Shadows Slumber
5.   Faraway

2. Game Design

Elementally has its roots lie in the legacy of the artist M.C. Escher, and his pioneering artworks of impossible constructs, which plays on optical illusions and the creative use of 2D perspectives. This game is built upon the optical and perspective illusions of impossible constructions
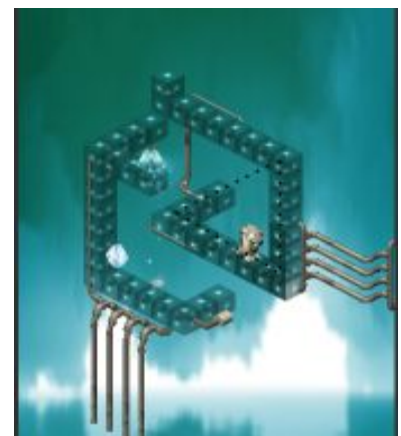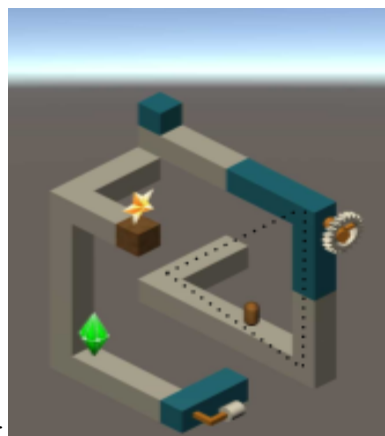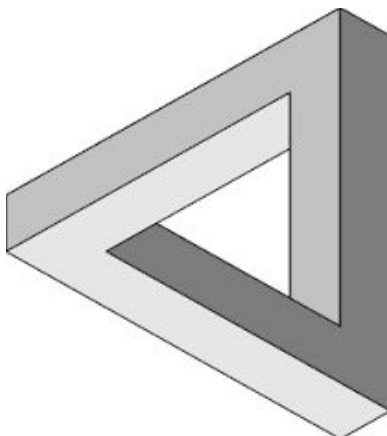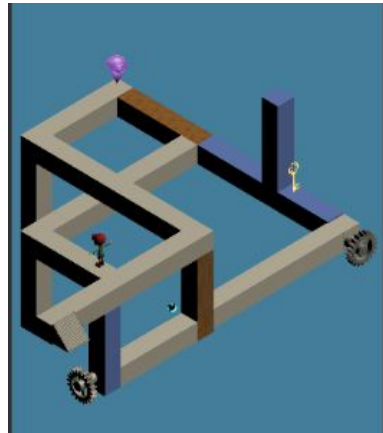
Sketches
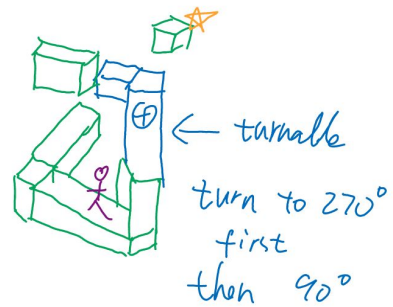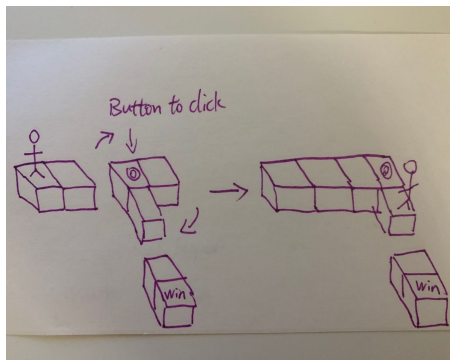
Level Fire
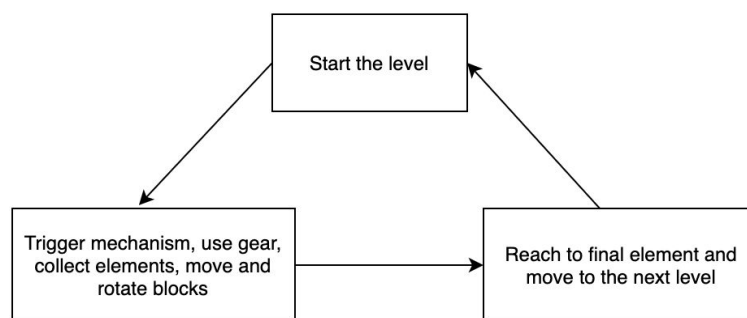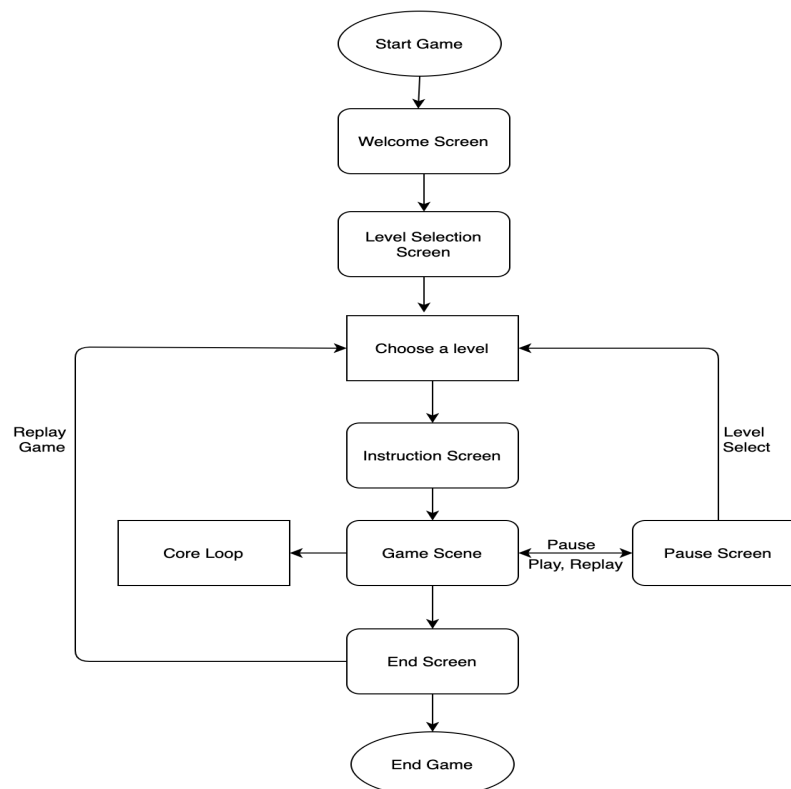

Level Water

Level Earth

Core Loop

Game Loop

3. Mechanics

Reach the destination by altering the optical illusion using the following mechanics

Player Movement
Tap on the block to make the player move to that block.

Drag To Rotate Mechanic
Swipe up and down to rotate the goblet which will rotate the blocks and connect parts of the puzzle.

Drag To Slide Mechanic
Drag the sliding object left or rotate to transport the player across unconnected components.

Click To Rotate Mechanic
Tap on the gear to rotate a set of blocks which will create a path to the destination.

Collect Objects Mechanic
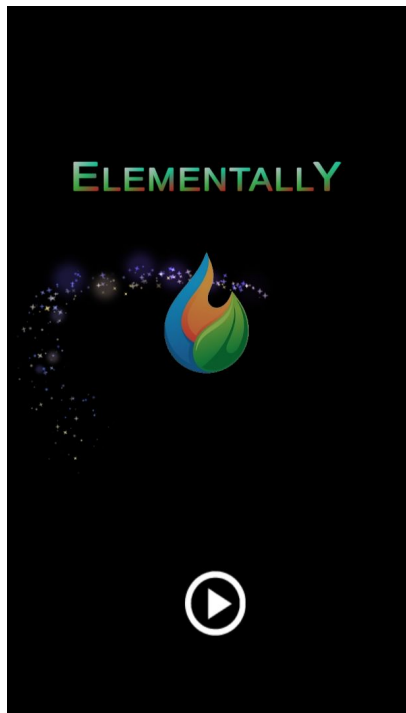Move towards certain objects to collect them to unveil the gear that rotates some blocks.

Math
The game is based on 3D geometry in an isometric view which challenges depth perception.
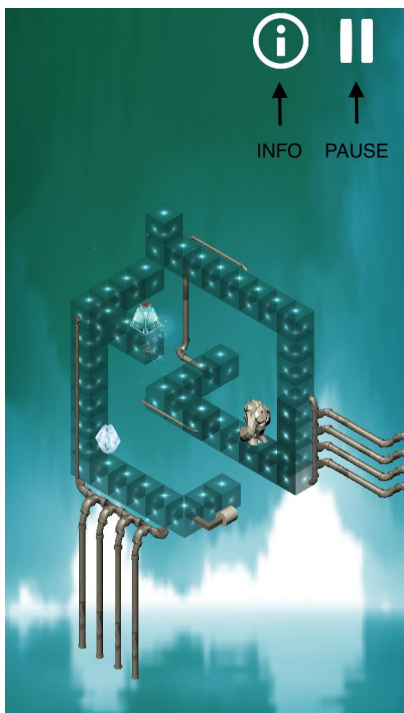
4. UI Elements

Welcome Screen

Level selection screen
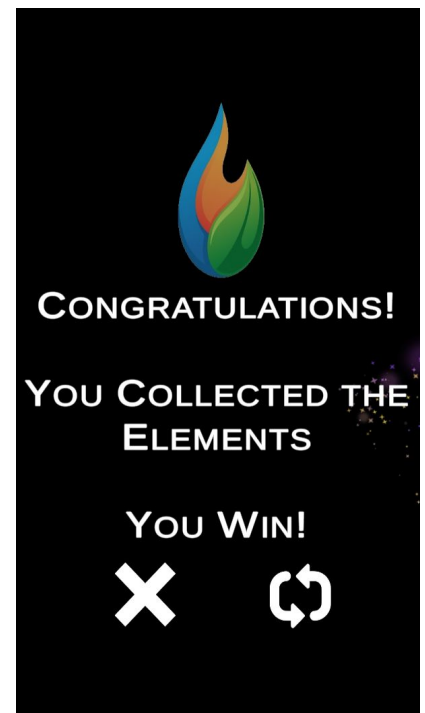

Level Specific Instructions
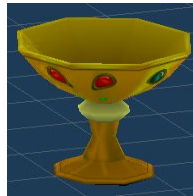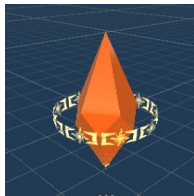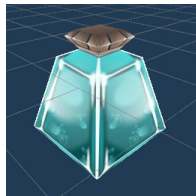

Game Scene

Pause Menu

End Screen

5. Gameplay

In Elementally, the player journeys through impossible objects and mazes of optical illusions to collect three elements present at the destination: Fire, Water, and Earth. The player collects different objects to reveal and trigger different mechanisms to construct hidden paths to the destination.

Player

Elements

Rotatable Objects
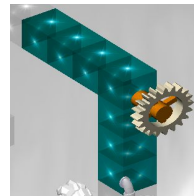
Gears

Collectables
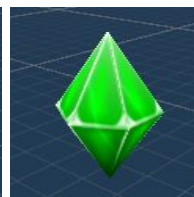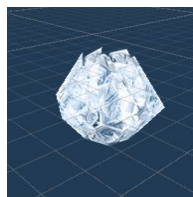
General Gameplay:

The player has to move towards a particular collectible by tapping on the location. The player might need to use a gear to reach some collectibles. Collecting the collectible will give the player access to the gears. Each gear manipulates the architecture differently. The player will have to tap/move the gear to try different configurations of the blocks. One particular configuration will form a valid path. Using that valid path, the player can either move to collect another collectible and repeat the above-mentioned process or move towards collecting the element at the destination.

Example Level Walkthrough - Water Level

The player can use the sliding platform and transport itself to the snowflake item. Collecting this item will drop a block to make a path and reveal a hidden gear using which a set of blocks can be rotated. This will help the player to arrange a path to the water flask.

The gameplay for Level Water is explained

Slide the handle to move blocks to the side

Move the player on the block and slide it across to collect the collectible

Collect the element to complete the level

Collect the collectible to make the path
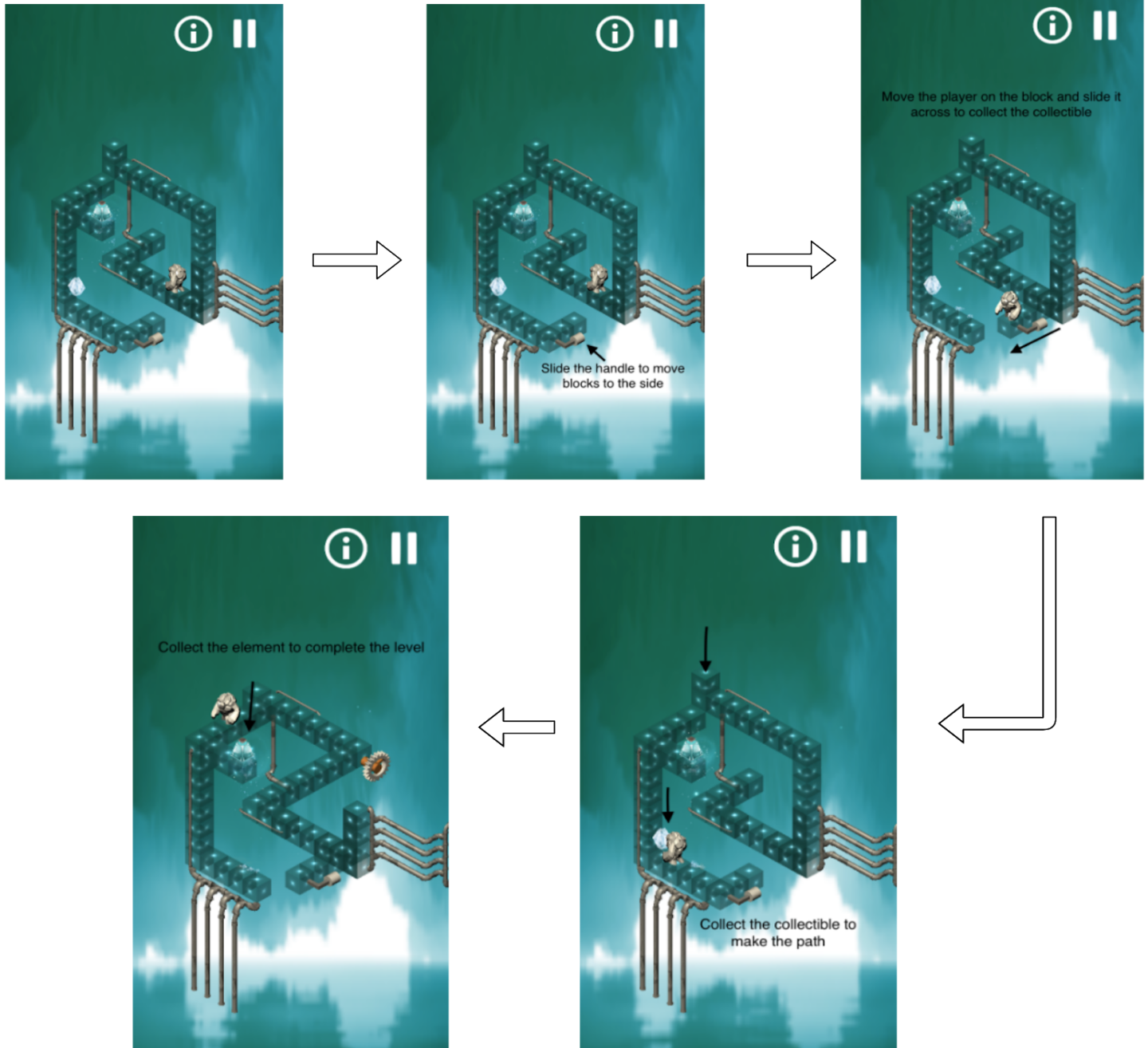
6. Final Deliverables

WebGL Link: https://elementally.tombu.info/

Final Demo Link: https://www.youtube.com/watch?v=-FgaVBdATOo&feature=youtu.be

Feedback Form Link: https://forms.gle/39T5tEaRcpWzmTpc8

7. Improvements in Final Prototype

The features improved or added in the prototype were:

1. Drag and rotate feature for level 1
2. Level 3 based on the combination of the mechanics used in level 1 and level 2
3. New mechanics for each level
4. Player and collectibles features
5. Graphics and animations based on the elements pertaining to each level
6. Welcome screen, Level selection screen, and End screen
7. Instructions specific to every level
8. Sound effects

8. References

https://www.youtube.com/watch?v=hetaWVfaLQc
https://www.youtube.com/watch?v=aF3Idj_PeYY
https://www.vectorstock.com/royalty-free-vector/impossible-objects-vector-93657
https://en.wikipedia.org/wiki/M._C._Escher