



MONUMENT VALLEY

THE LIGHTHOUSE

Level Design Document by Fred Duffield

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STORY

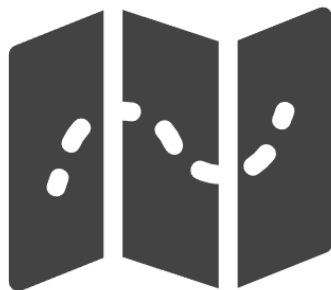
Game Story

- Ida travels through ancient ruins to search for forgiveness.
- Exploring ancient architecture.
- She slowly comes to terms with the past and helps to make the future better.

Level Story

- Ida starts on a small ring of ruins in the middle of a body of water
- As she progresses, she causes more of the level to rise out of the water
- At the end the entire level is visible, an old lighthouse that has three doors going up the side.
- She travels into each doorway and learns new mechanics “inside” the lighthouse. When she finishes a room the game returns to the lighthouse, and it rotates to unlock the next area.
- On her journey of self-discovery and forgiveness she is restoring the past and atoning for her mistakes.

Themes



Exploration



Discovery

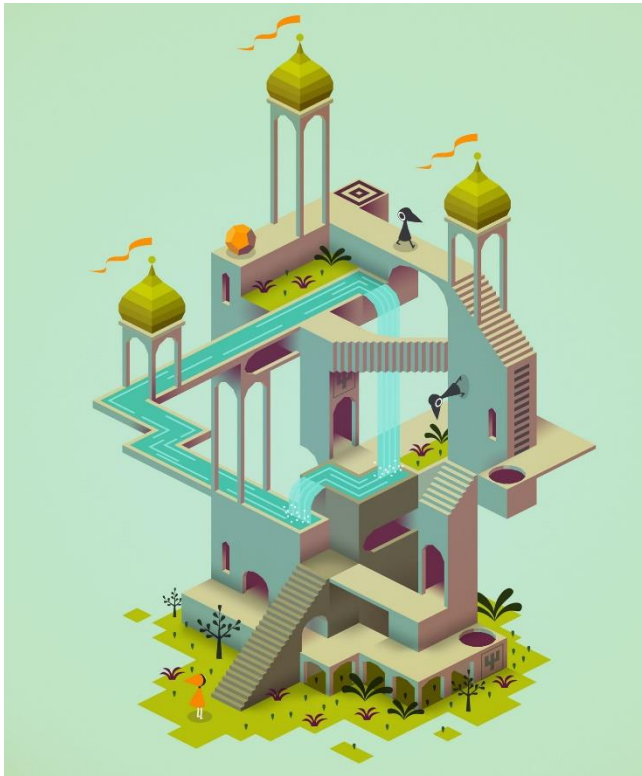


Repair

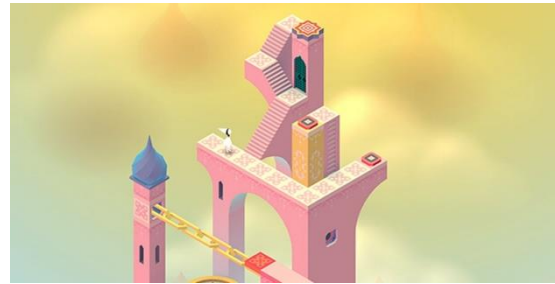


Hope

REFERENCE



Simple blocks and meshes used to build up a complicated level



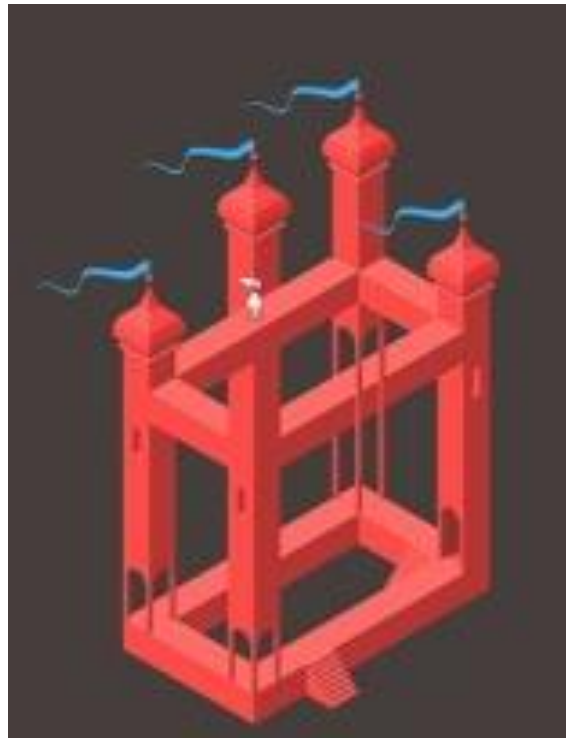
Use of varied colours to highlight important parts of the level



A focal point at the centre, highlighted by the use of colour throughout and the converging lines of the level geometry.



Isolated level with a visually contrasting background. Themes of destruction and movement.



Vibrant simple colours against a plain background. Peaceful and still.



Tall vertical level. Leading the player up.



Busy background of full city.



Tall level with blank background, drawing in player focus



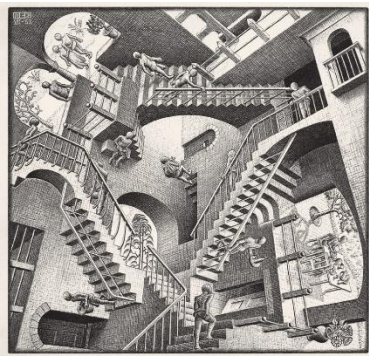
Visually interesting level with moving parts



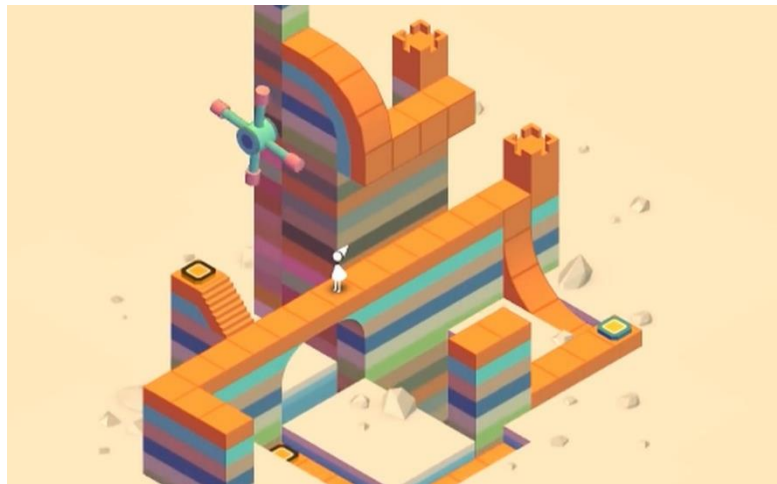
Water at base to contrast with red level



More real-life influence.
Warm colours and stylized
water



Optical illusions used to create
artworks. Archways and stairs.



Inset level into the environment, creating an interesting
visual effect



M.C Escher artworks that use forced perspective to create
visually interesting pieces. Similar architecture is used in
the game



Under-Saturated colours and a tall lighthouse to ascend



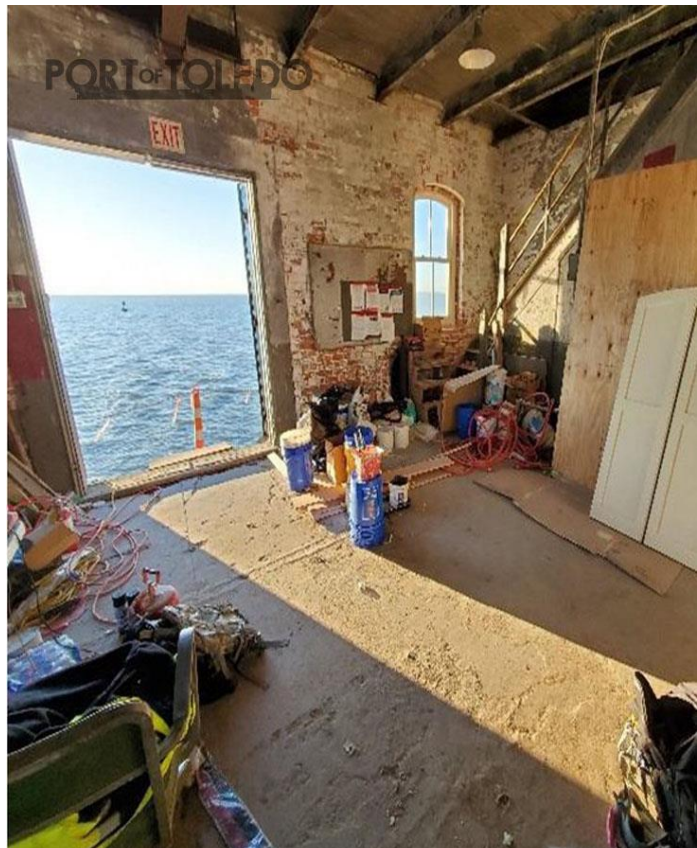
Small red and white cottages and rocky shoreline. Waves splashing against rocks.



Tall, jagged rocks and cool colour pallet. Sharp rocks that frame the level.



Large, brightly coloured top to indicate goal.



Sunrise lighting looks warm. Inside of the lighthouse is rough with muted colours.

GAMEPLAY REQUIREMENTS

Gameplay Features

Player Movement

- Player can click on a block to move the character

Illusion Pathfinding

- Character needs to find the path to any selected block
- Needs to account for optical illusions
- Needs to account for moving blocks

Rotating Blocks

- Blocks rotate when dragged and snap to the closest 90 degrees
- Move the player if they are on the block
- Open and close paths for the player

Draggable Blocks

- Move when dragged
- Move player when they are on the block
- Open and close paths for the player

Moving Blocks

- Move when linked block is moved

Buttons

- Move blocks when the character stands on it

Doors

- Move player to different Scene/Area when entered

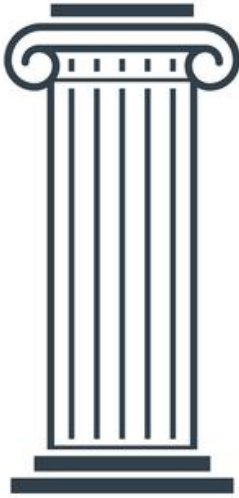
Gravity Switching

- Player should be able to walk on multiple surfaces of the level
- Only on sides of the blocks that are allowed

End Block

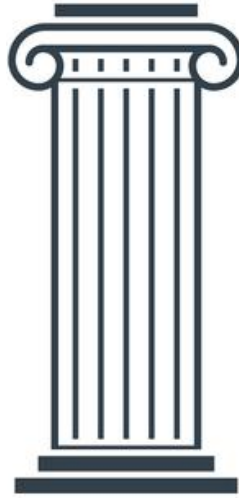
- End level when character reaches this block

Pillars of Play



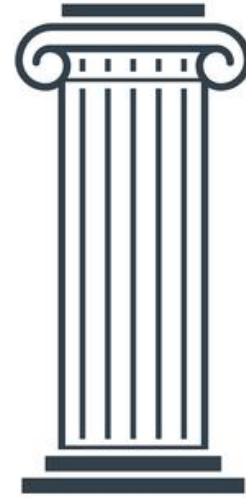
Pillar I

Player Movement over
visually connected paths
using optical illusions.



Pillar II

Ability to interact with the
level and open and close
paths for the character

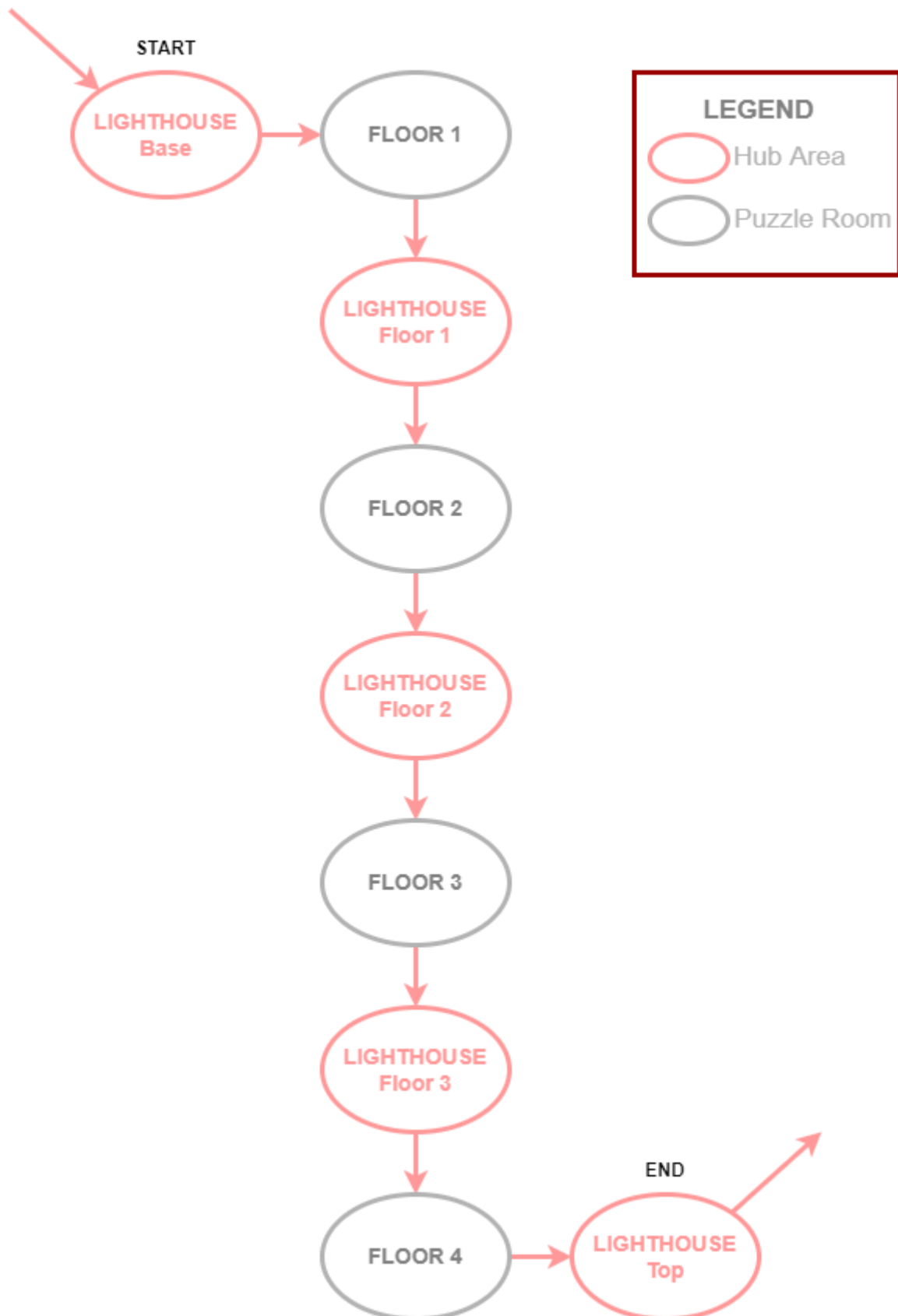


Pillar III

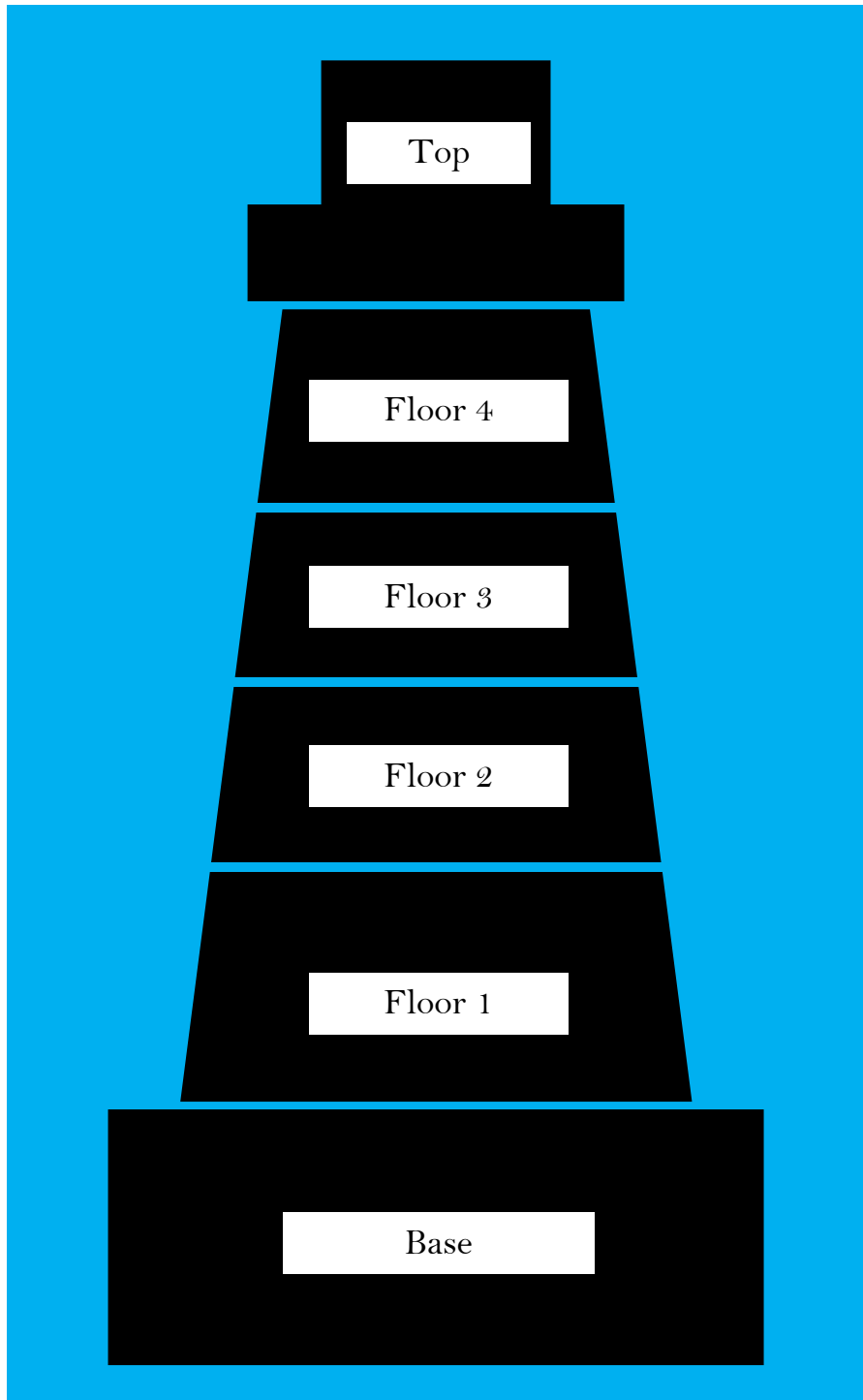
Player able to walk on
multiple sides of the level
AKA Gravity Switching

DIAGRAMS

Bubble Diagram



Lighthouse Hub Parti Diagram

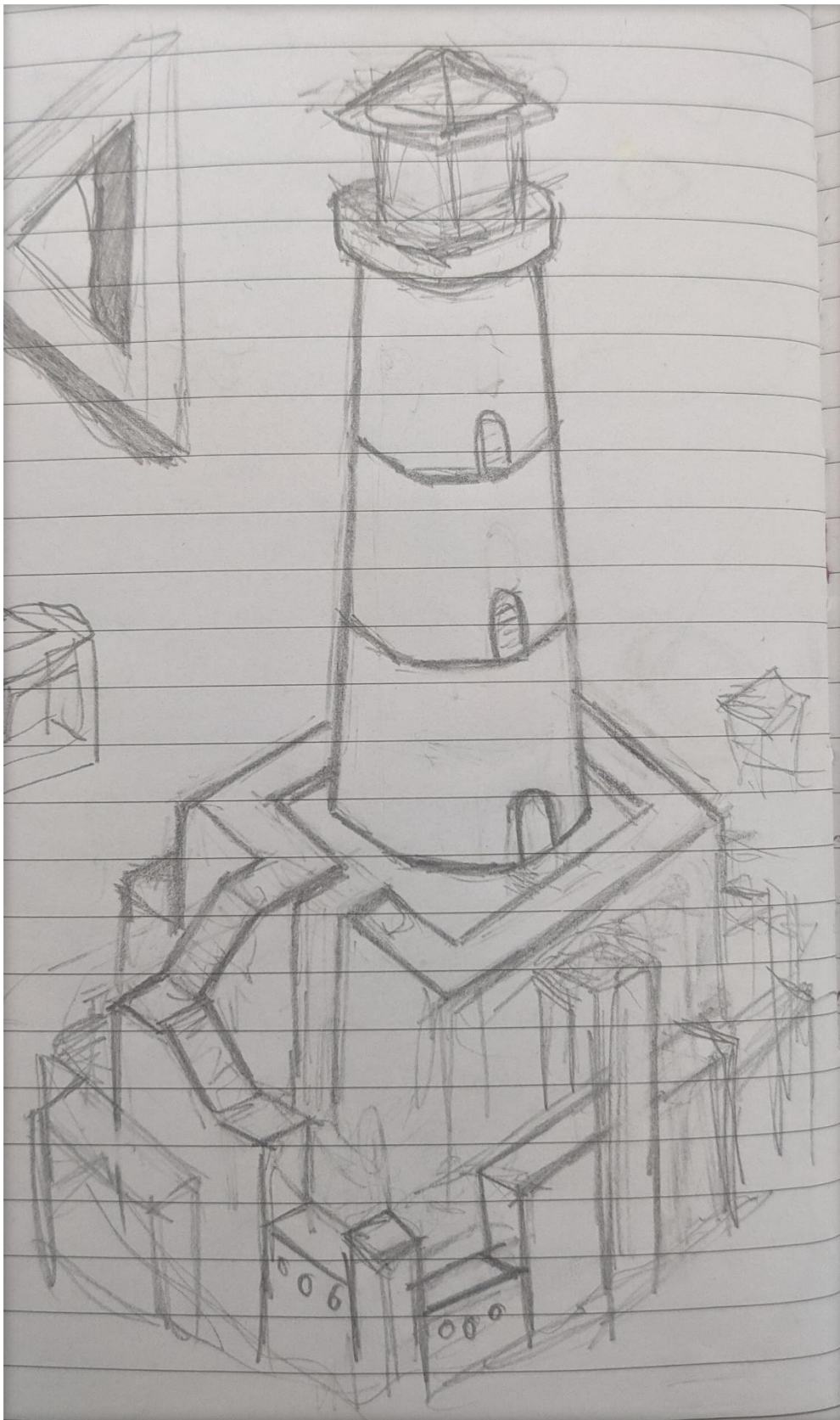


Beat Map

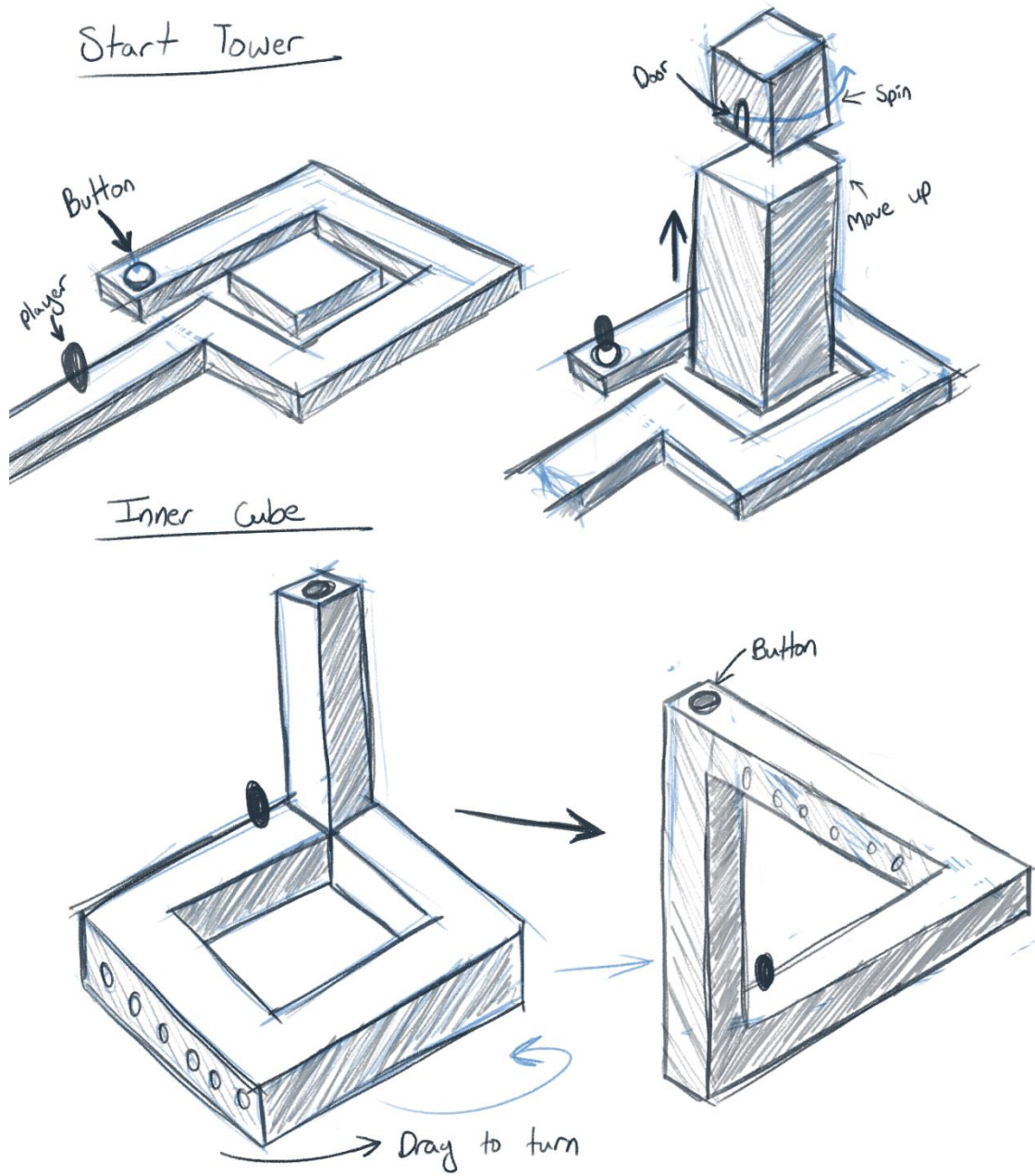
THE LIGHTHOUSE BEAT MAP DIAGRAM



Concept Sketch

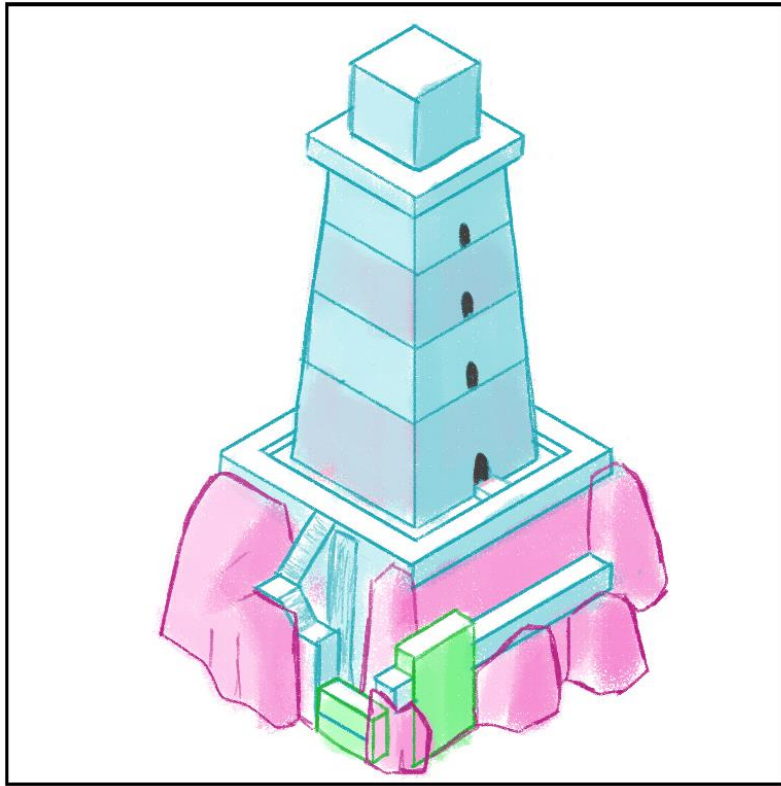


Puzzle Concepts

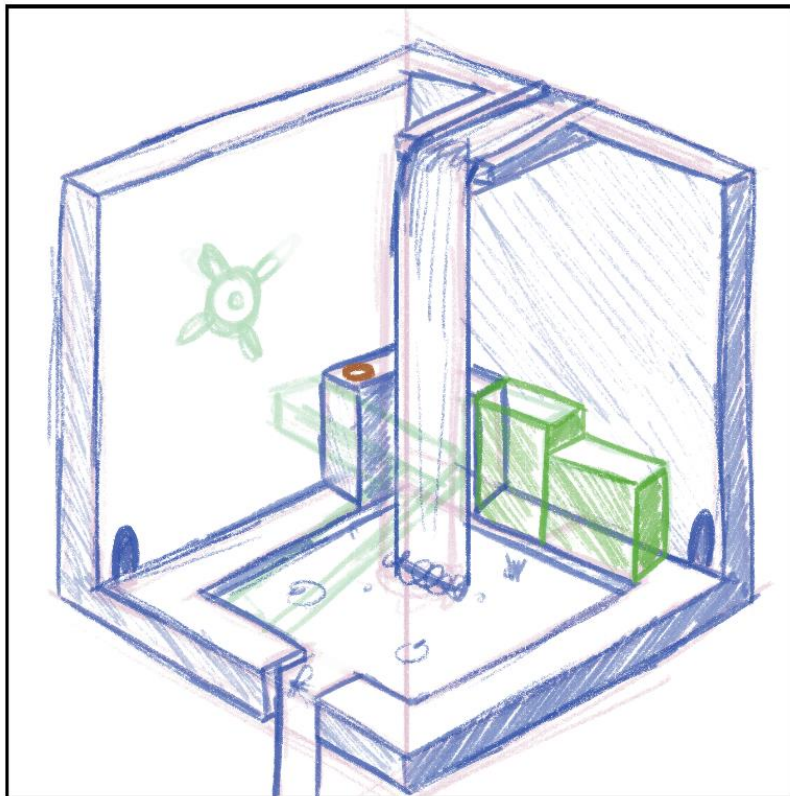


Room Concepts

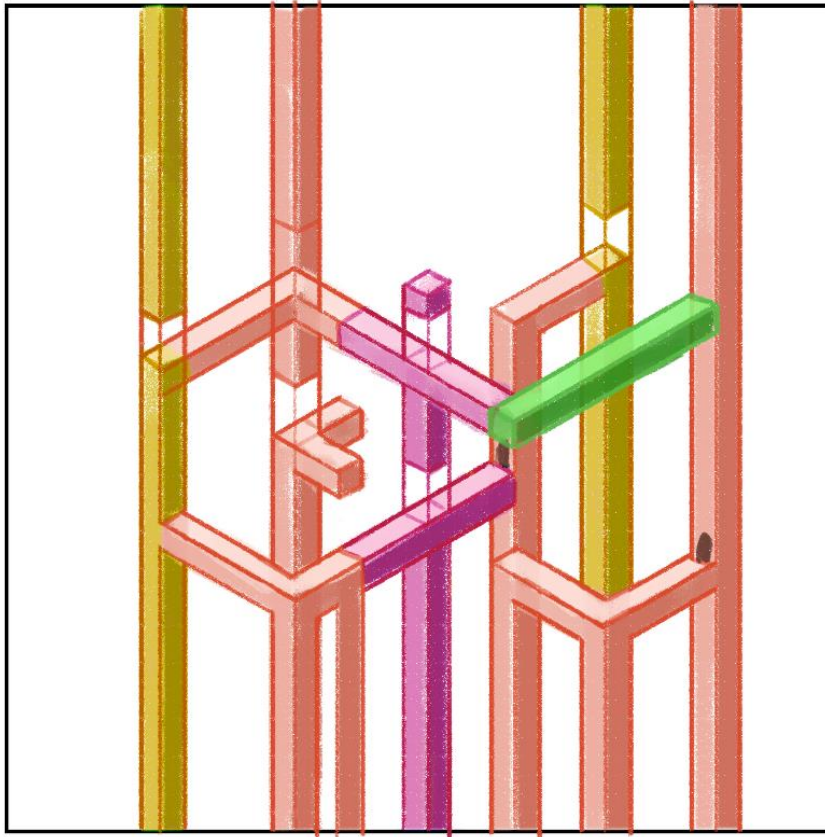
Lighthouse Hub



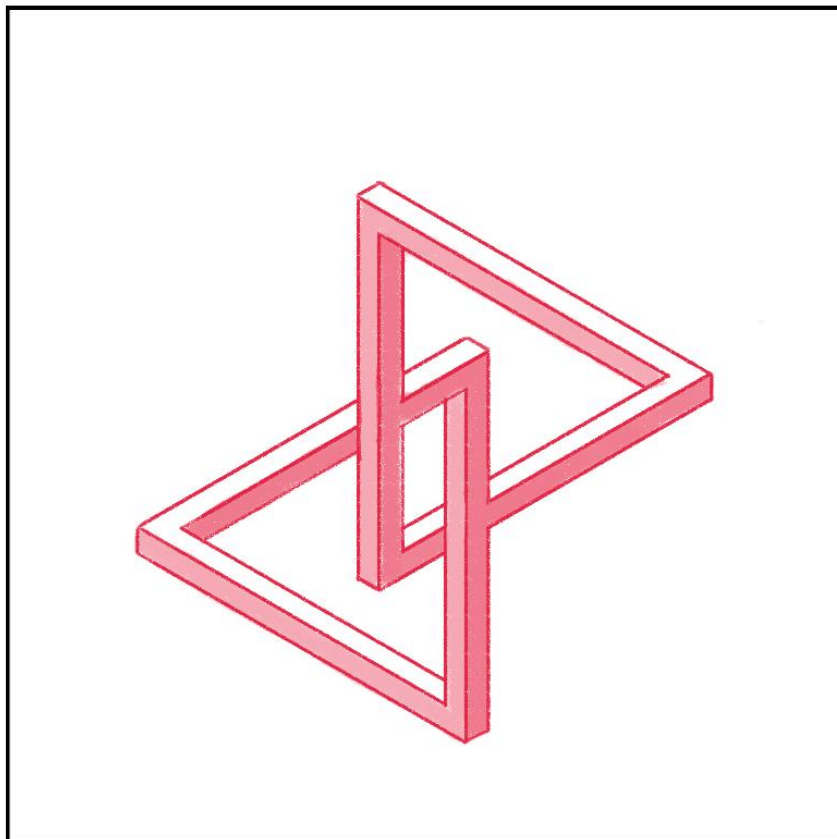
Floor 1



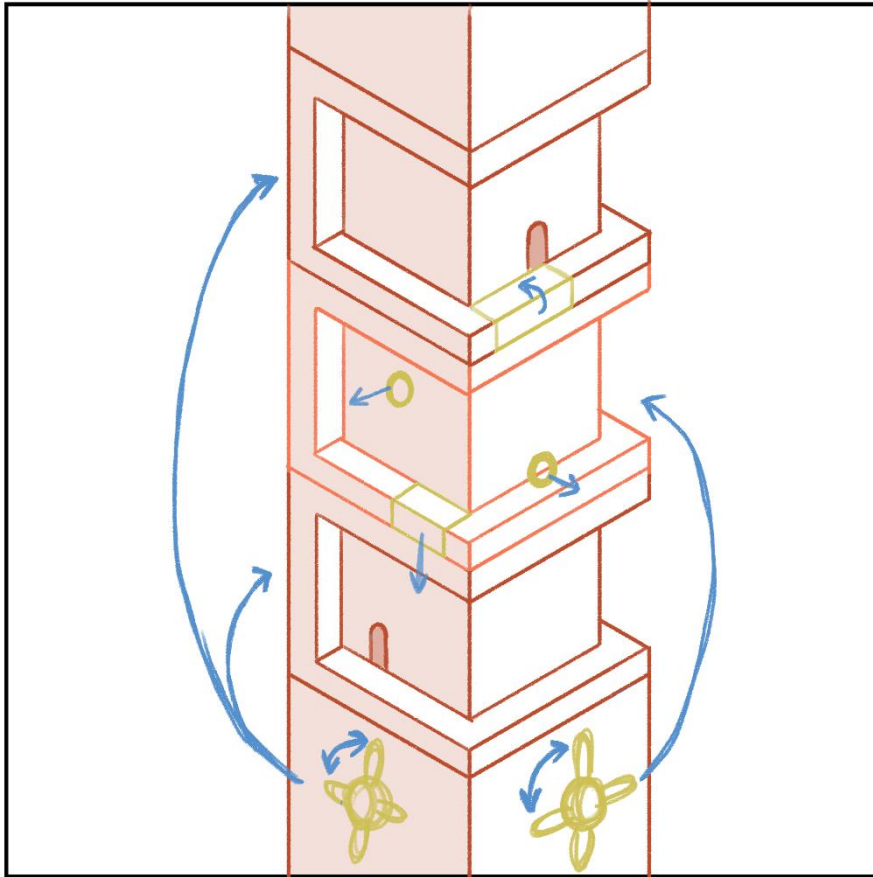
Floor 2



Floor 3

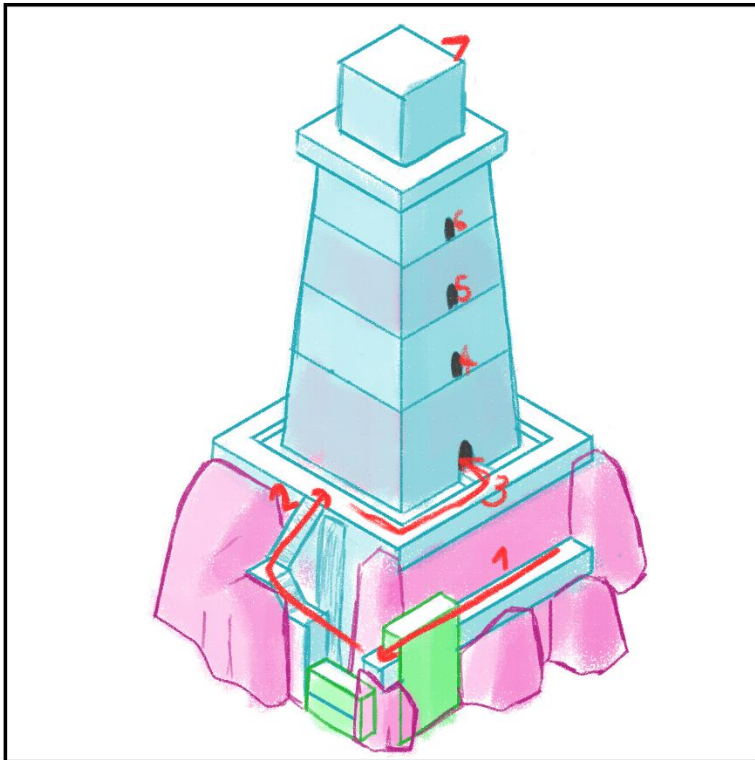


Floor 4



MAPS

Lighthouse



The Lighthouse is the hub area for this level. The player enters each door to travel to the other rooms, and upon completion returns to the Lighthouse where access to the next door is unlocked. The player ascends the Lighthouse to the top where the End totem for the level is.

This is the first area the player sees and after walking a short way they are introduced to the Draggable blocks (represented by the green blocks), followed by the stairs and then Buttons.

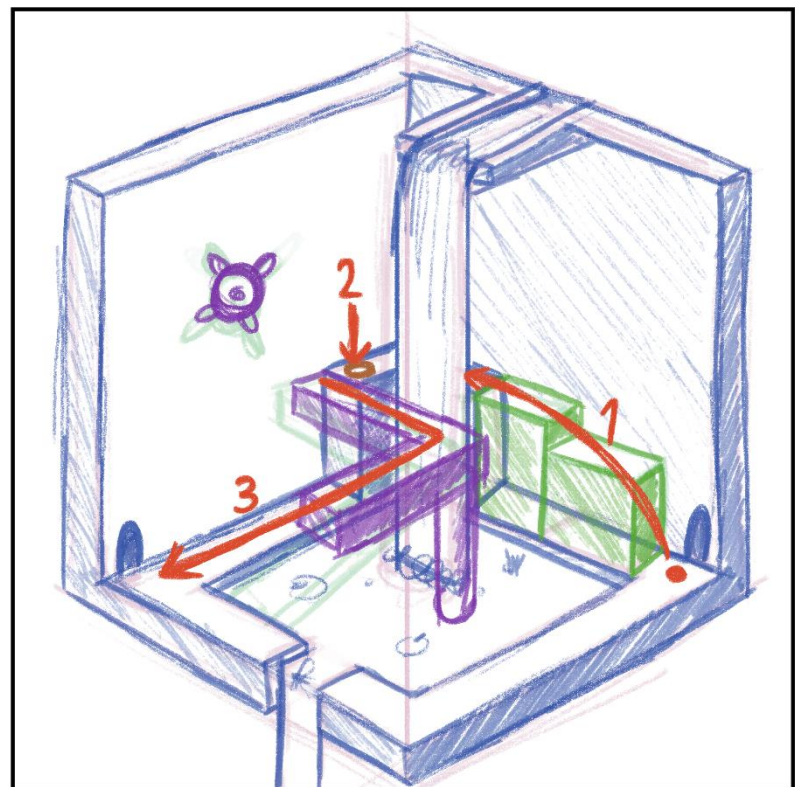
The path shown on the diagram is the critical path for the player.

Floor 1

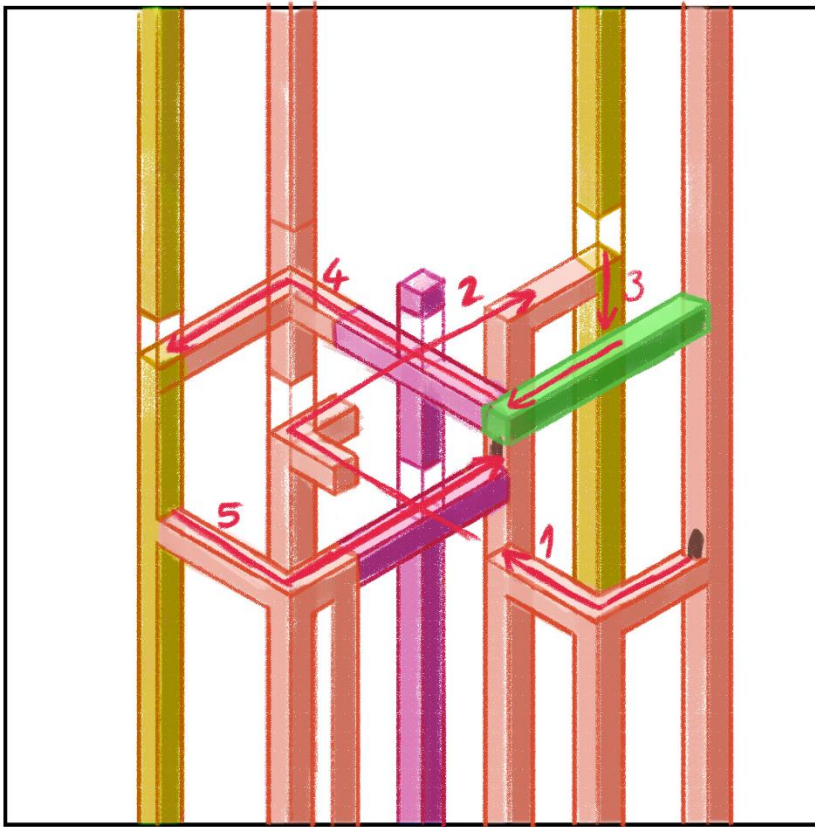
Floor 1 is accessed through the first door of the Lighthouse. It contains both Draggable blocks and Buttons as well as introducing Rotating blocks.

The Rotating blocks are shown in purple and rise out of the water below when the button is pressed. This button also reveals the wheel used to rotate the purple blocks.

When the player follows the path shown they will complete the level and unlock the next room in the Lighthouse.



Floor 2



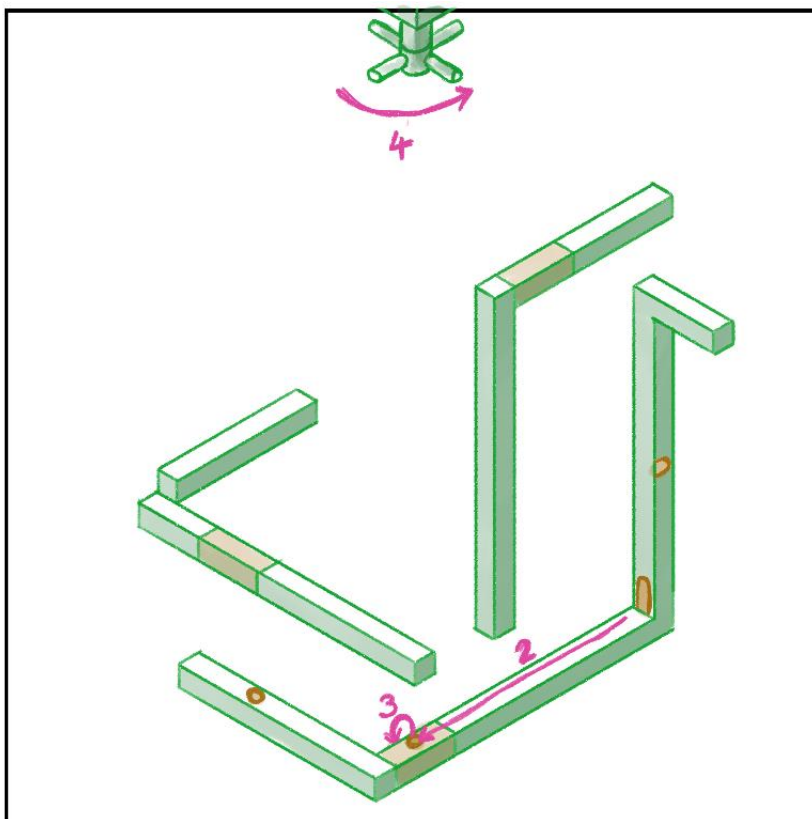
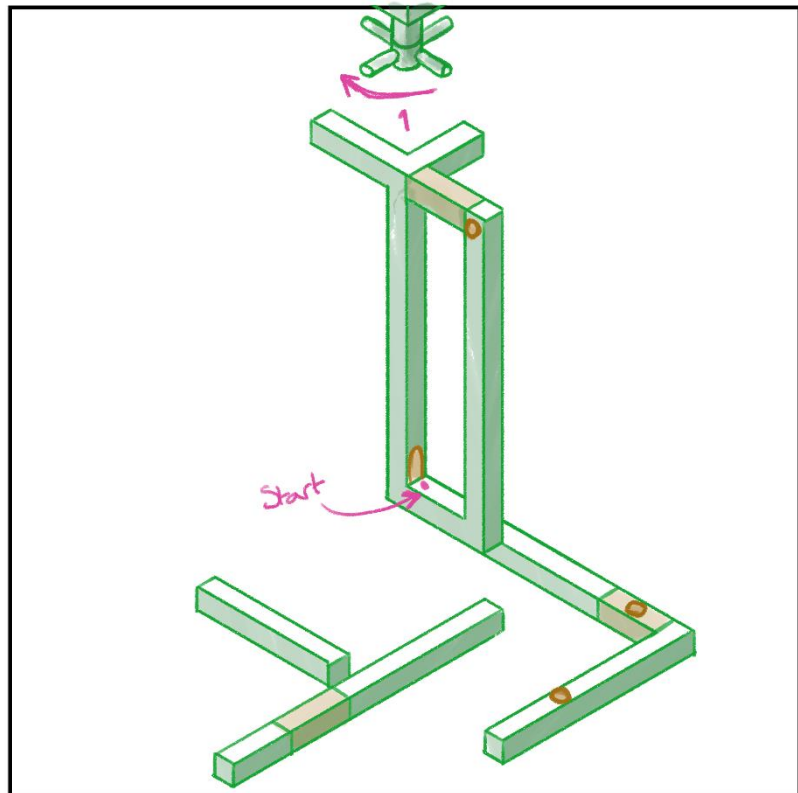
Floor 2 tests both Draggable blocks and Rotating blocks. The player has to traverse over the whole level to make their way to the door to exit.

The path here shows how the player must navigate the level. The green block is a Draggable block that cannot be moved when the player is on it – this rule is true for the rotating block as well. The yellow blocks are draggable blocks that can move when the player is on them, and they function like elevators.

Floor 3

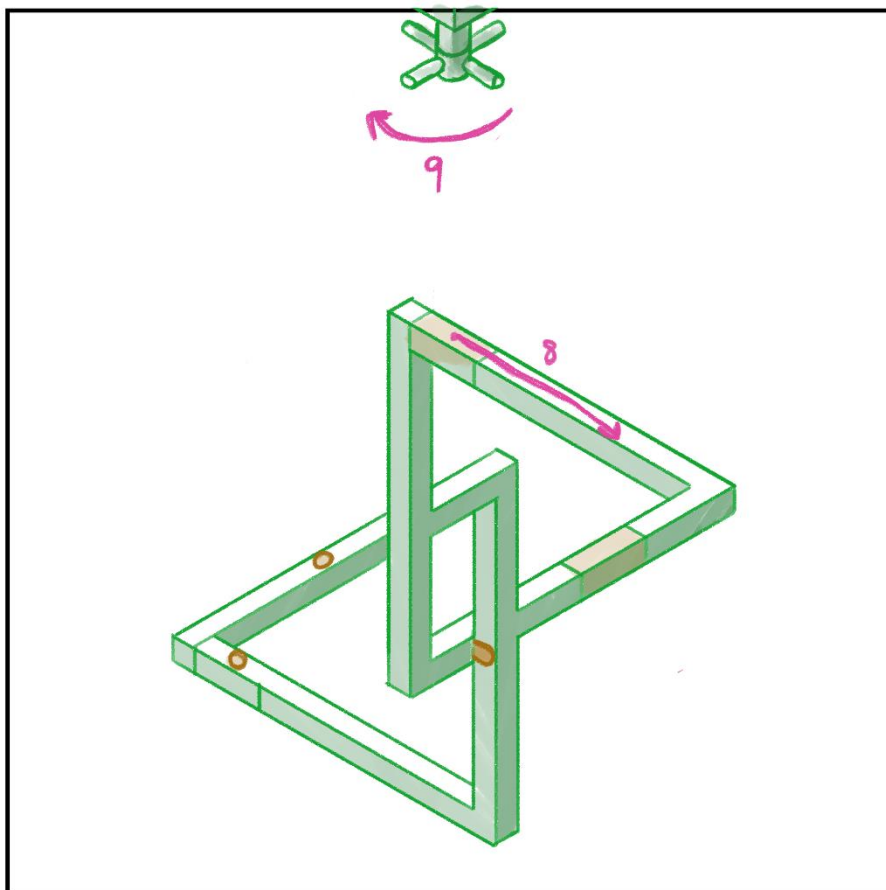
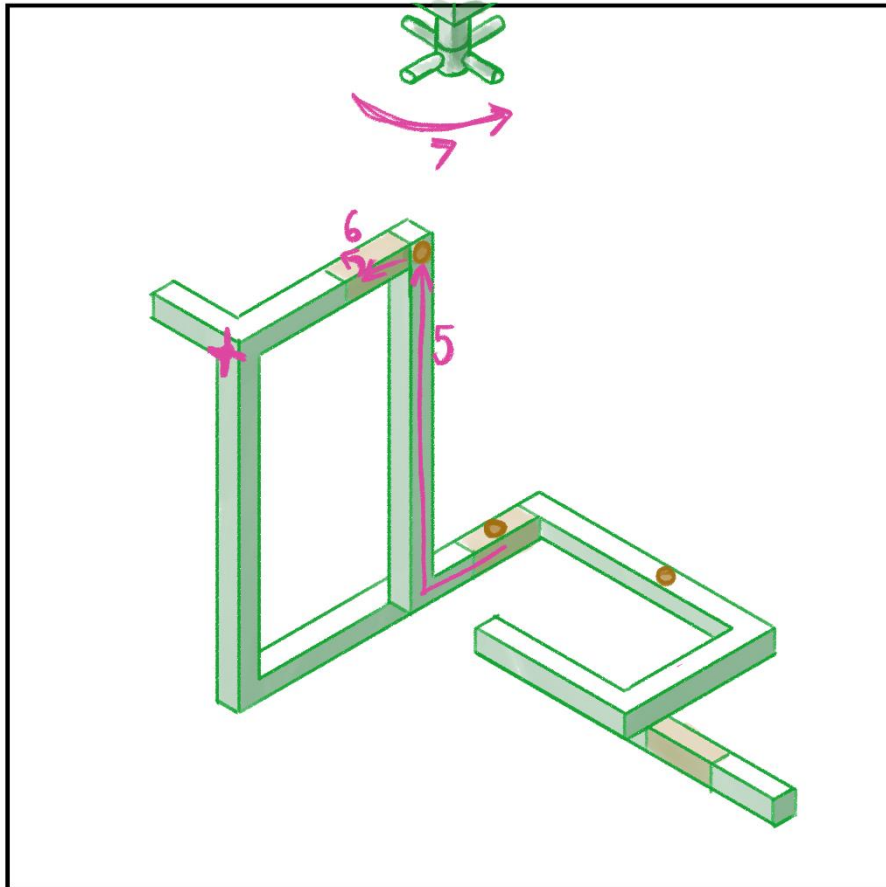
Floor 3 introduces the mechanic of Gravity Switching, where the player can walk on different sides of the level. This also uses rotating block to change the side the player is on.

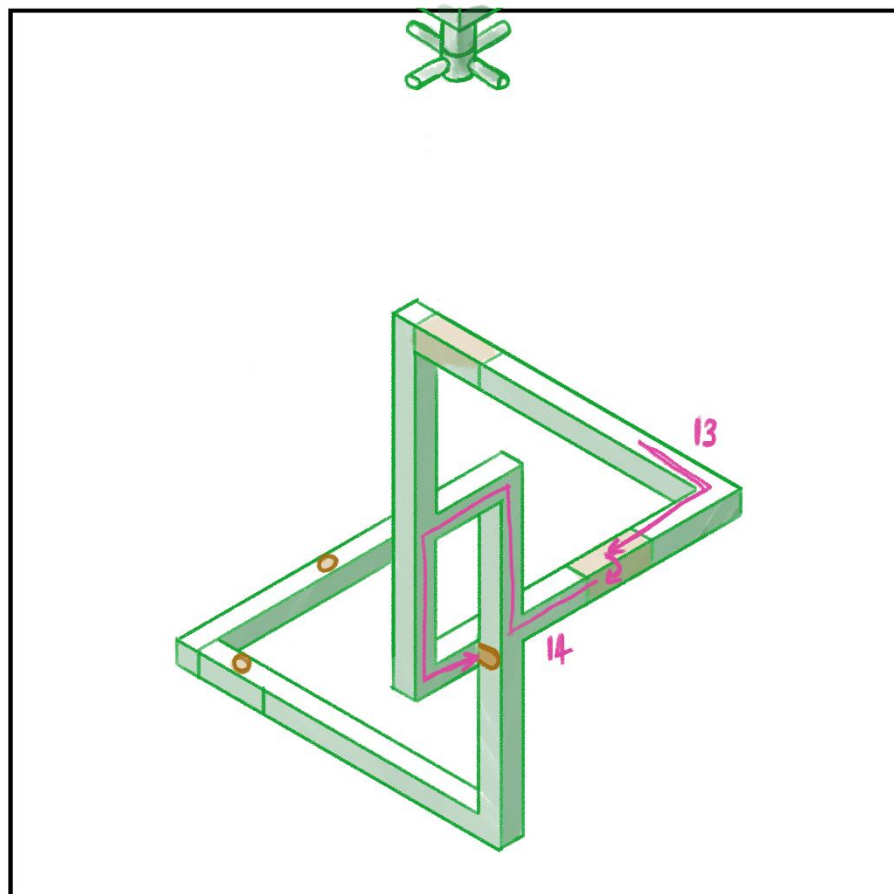
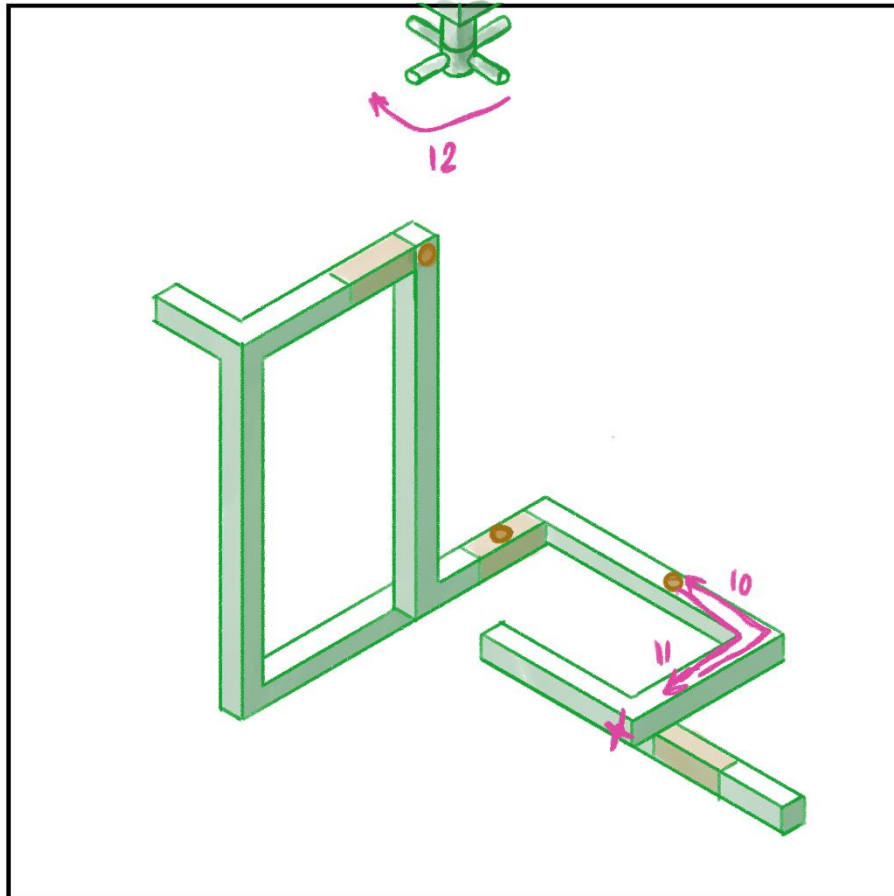
This level as a whole will rotate as well, disconnecting the Penrose triangles and highlighting the illusion of the level. The handle at the top can be used to rotate the full level, which will be needed to solve the level.



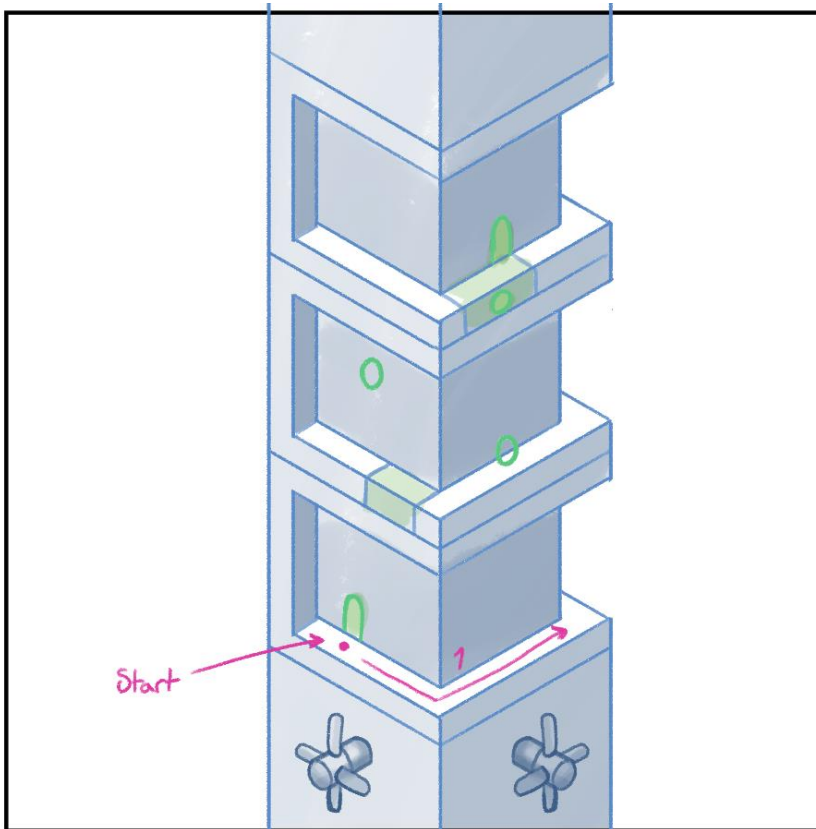
As the player walks over the first button the floor rotates 90 degrees placing the player on the side of the block. The player will have to continue to rotate the whole level to progress. The next buttons reveal smaller draggable handles with rotate the other marked blocks.

This allows the player to decide which side of the block they are on. This gives the player more freedom and allows them to explore the entire level.



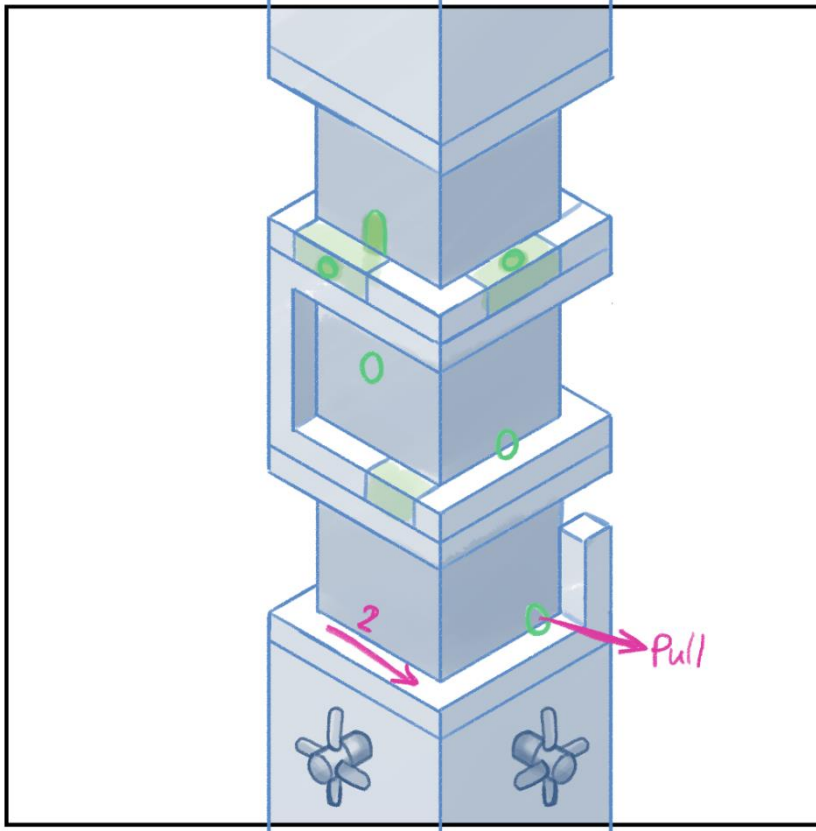


Floor 4

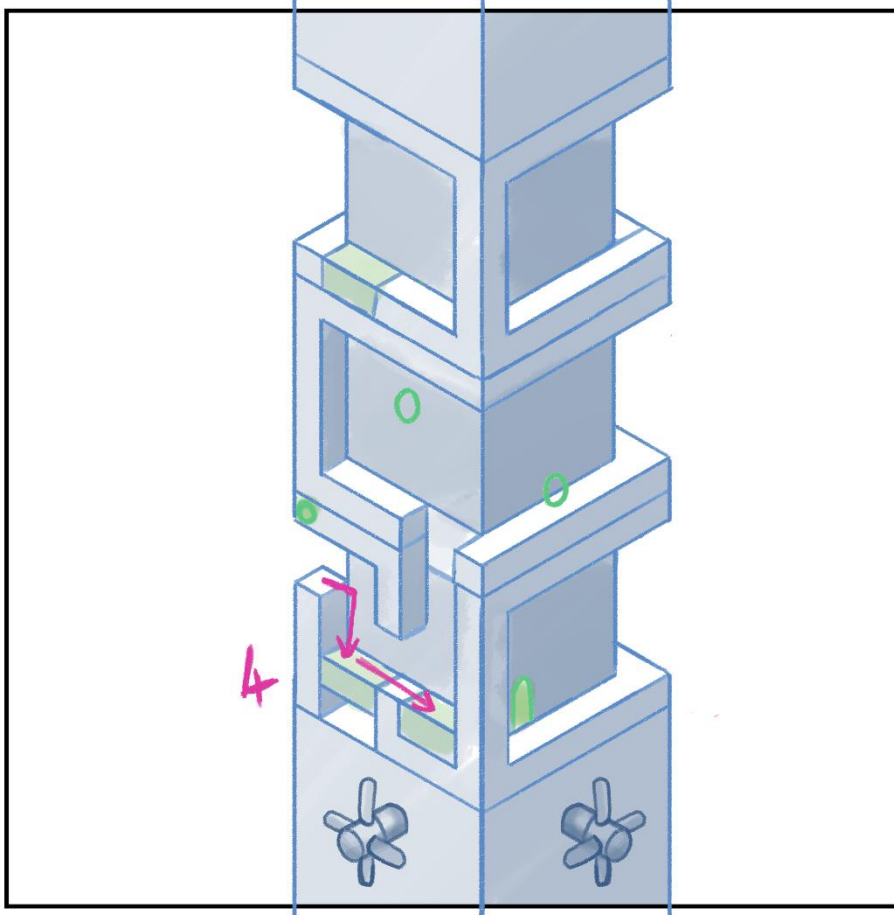
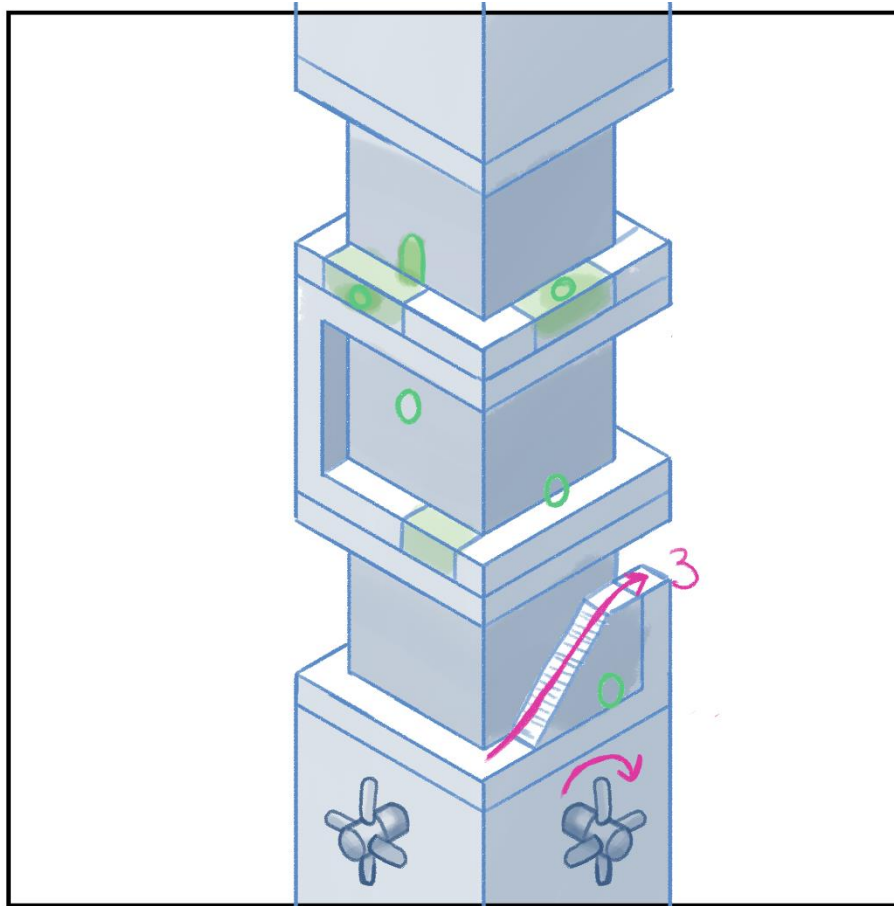


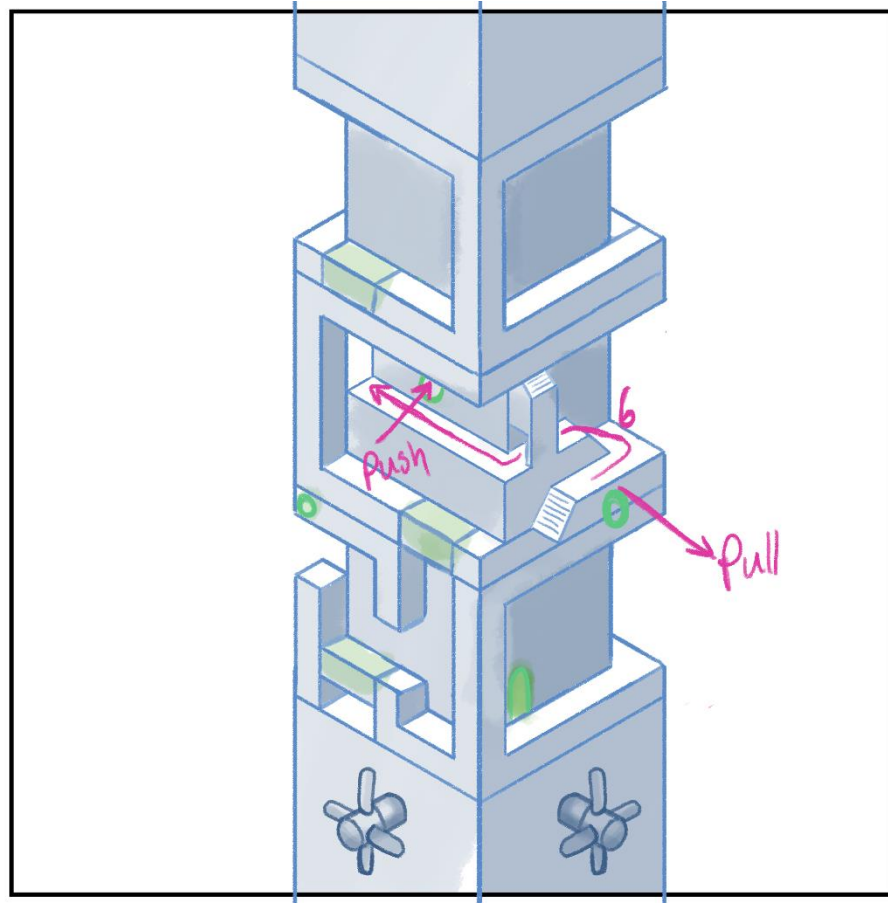
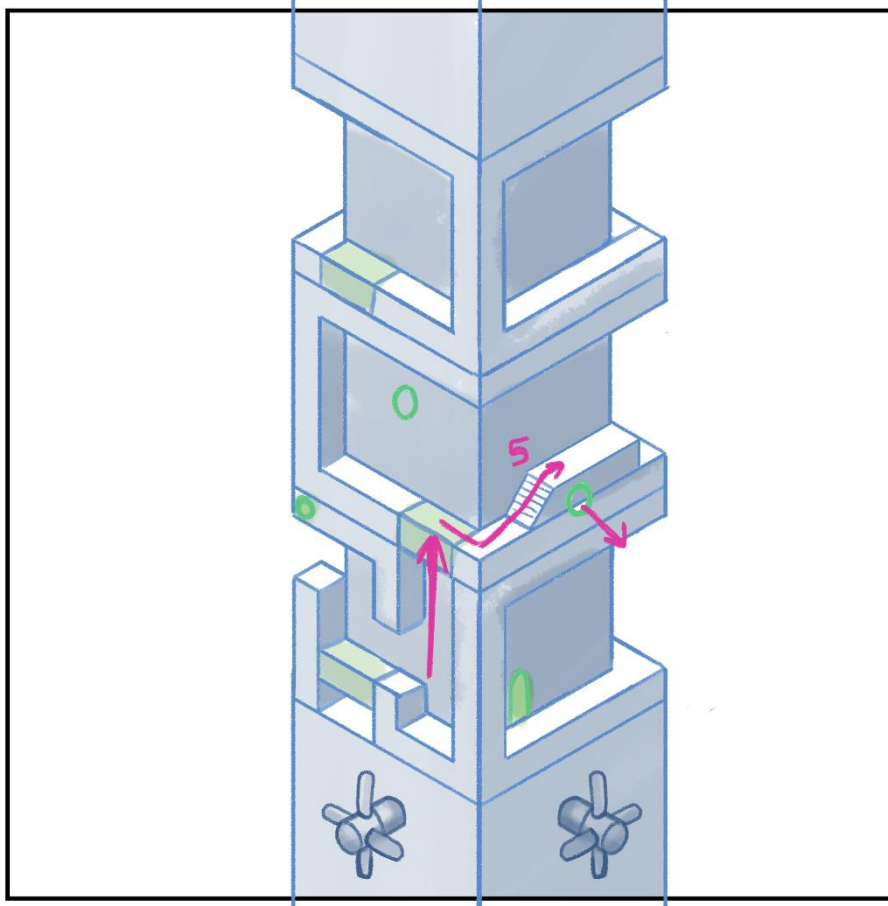
This final room is the most vertical, and has a very clear path for the player at the start. The player must find their way upwards, and they do this using the clearly marked draggable blocks.

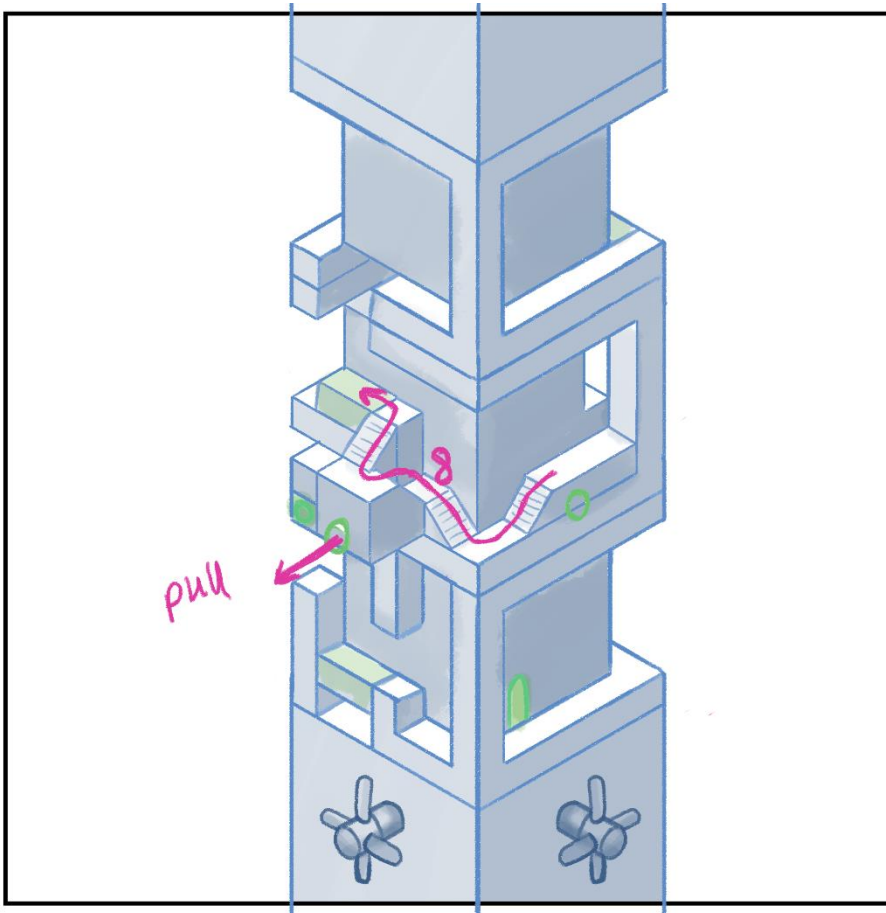
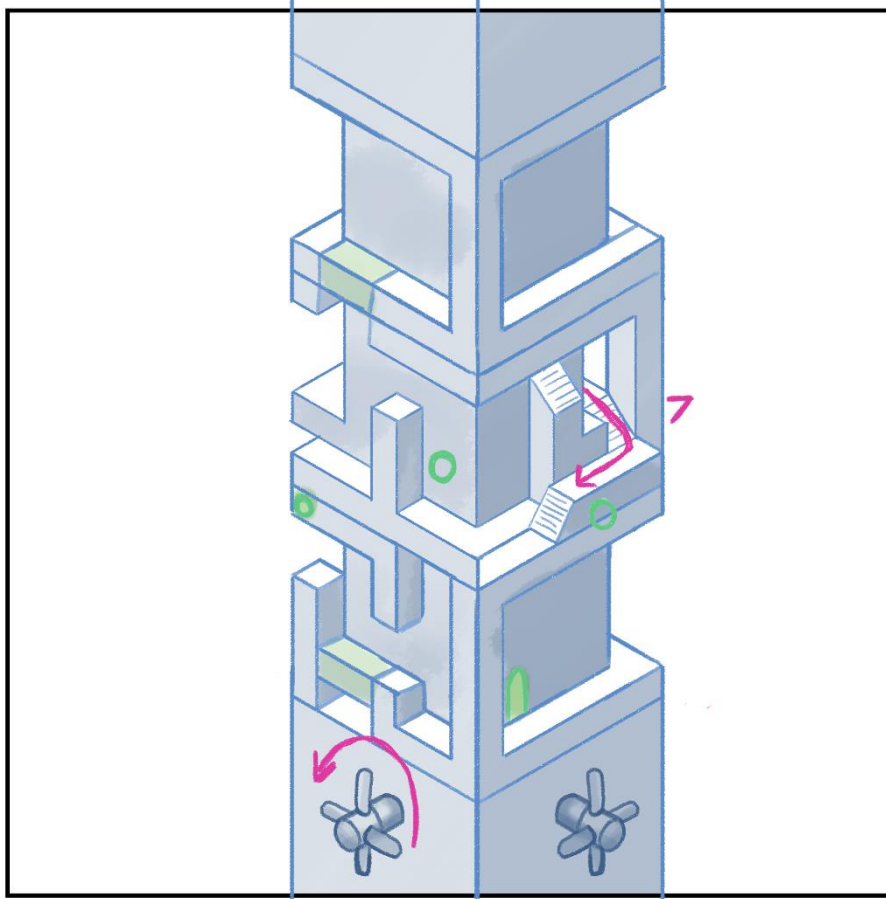
The two handles at the bottom rotate the different cubes in the level. One rotates the top and bottom cubes, and the other rotates the middle one.

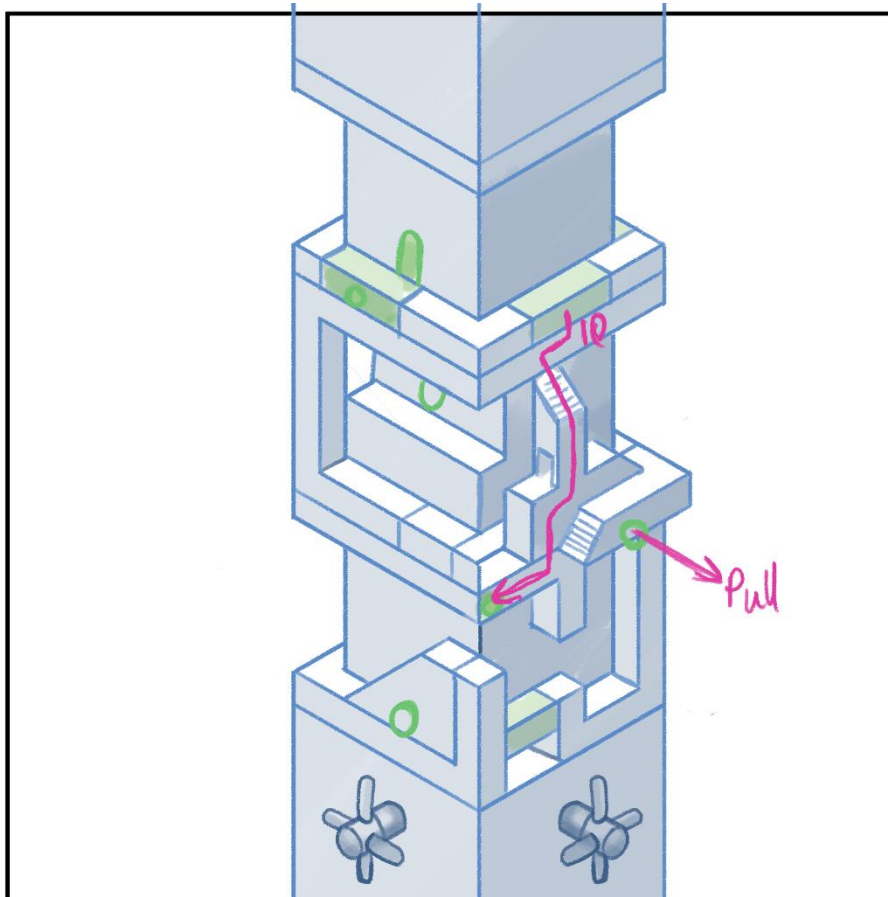
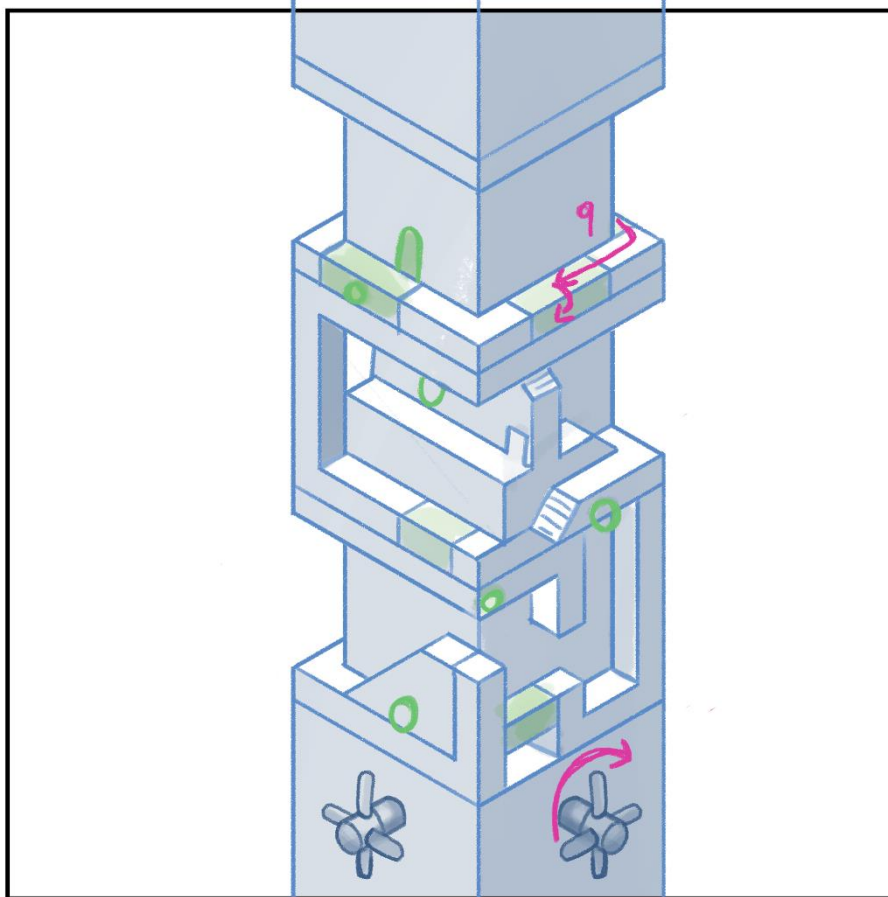


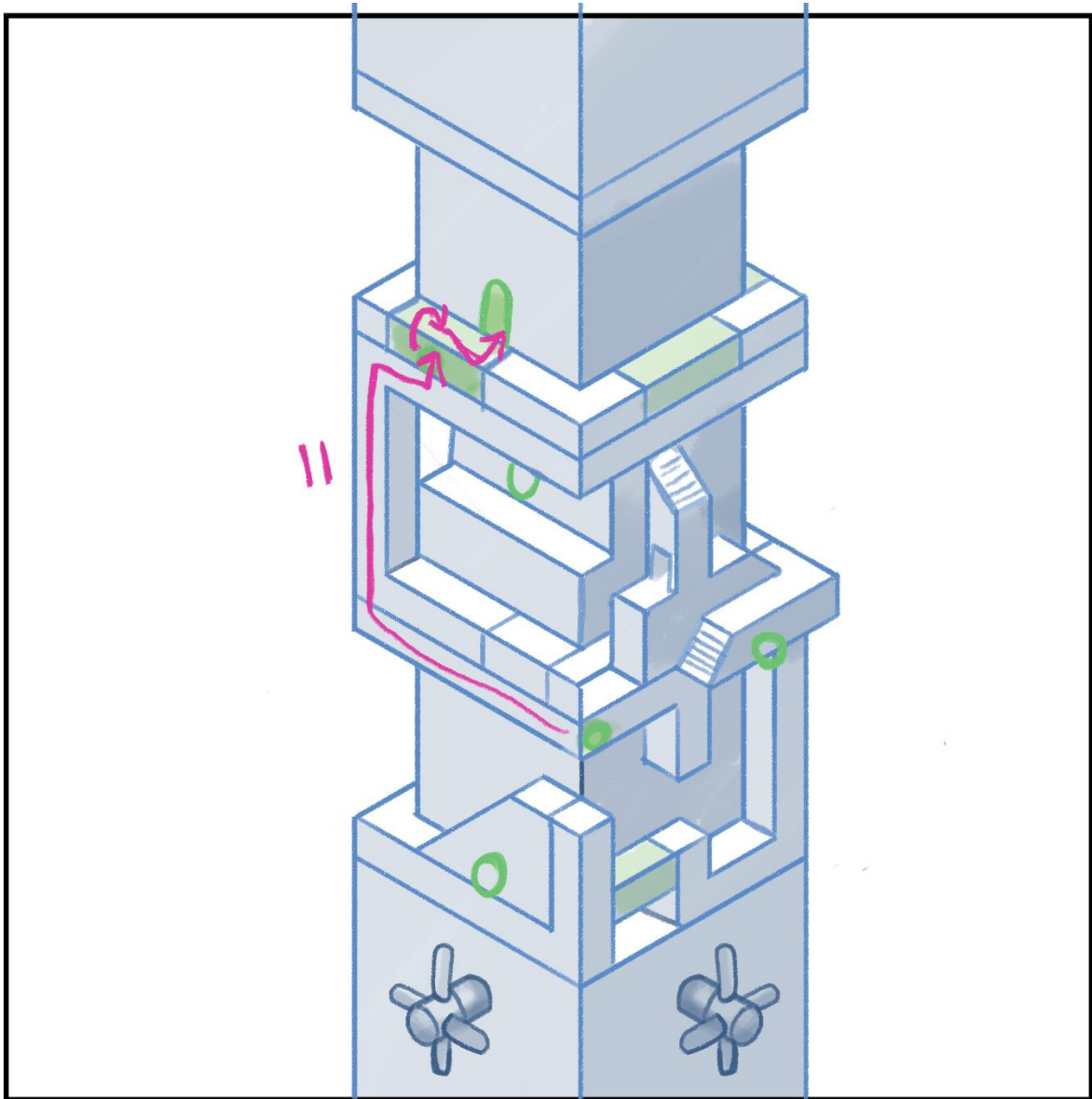
When the player reaches the top, they press a button in their path and this rotates them to the side of the block. It will also remove the handles and rotate the cubes into a fixed position. This is the twist of the level, diverting the players path and forcing them to find their way back down the side of the level to find the way back to the exit.









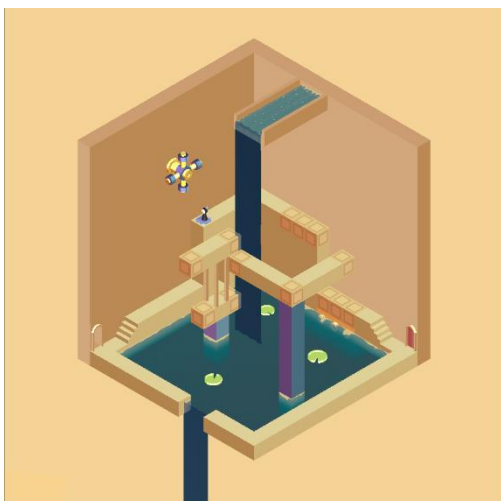


Level Screenshots

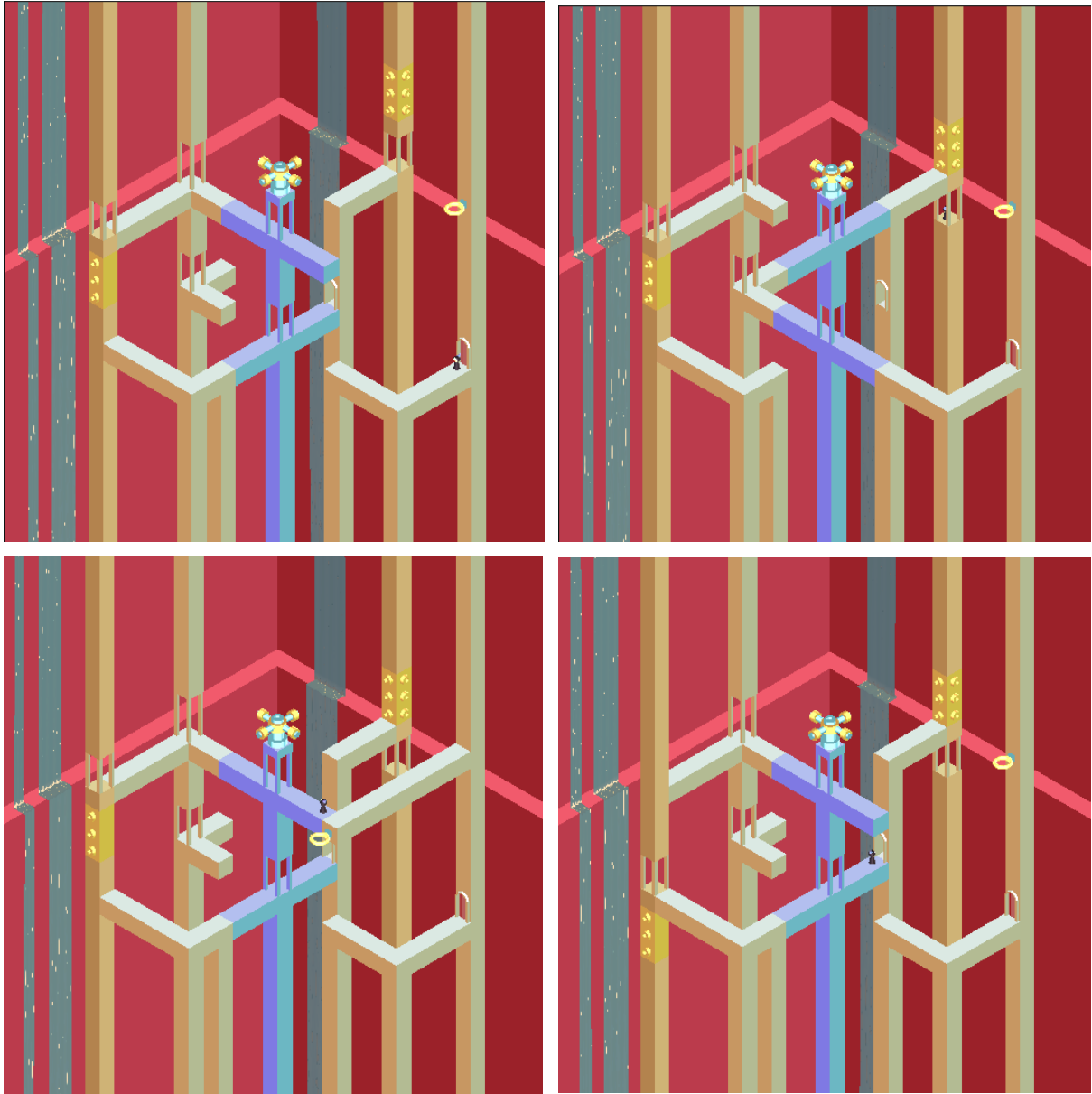
Lighthouse



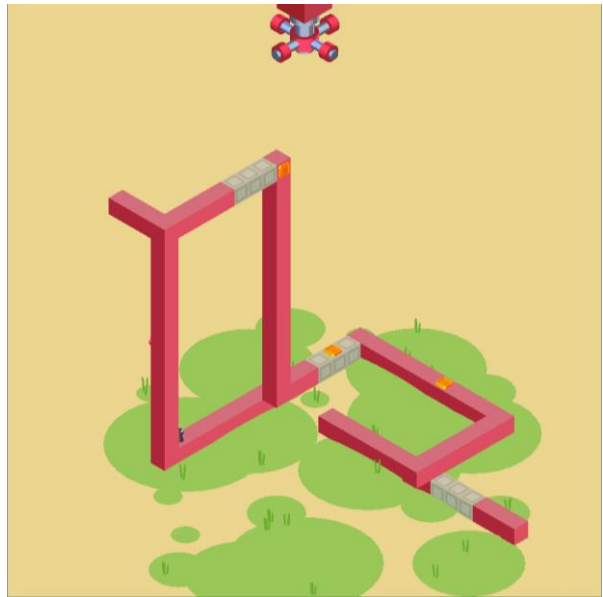
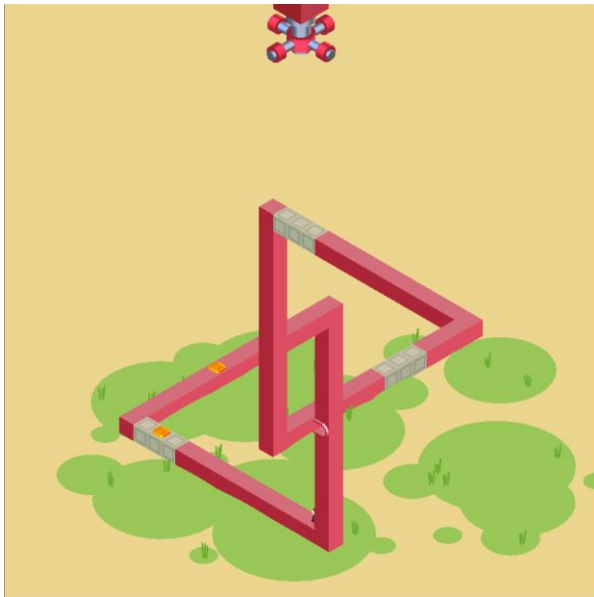
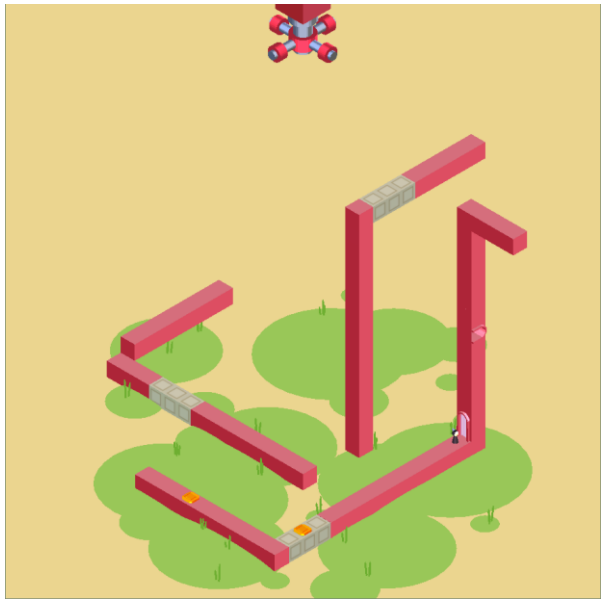
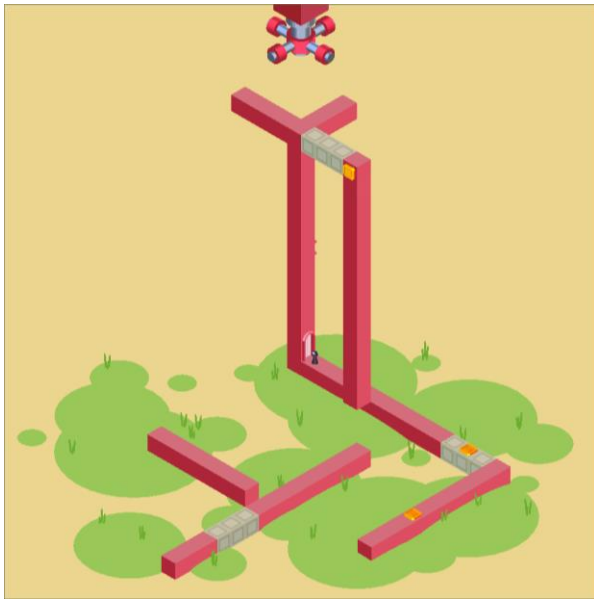
Floor 1



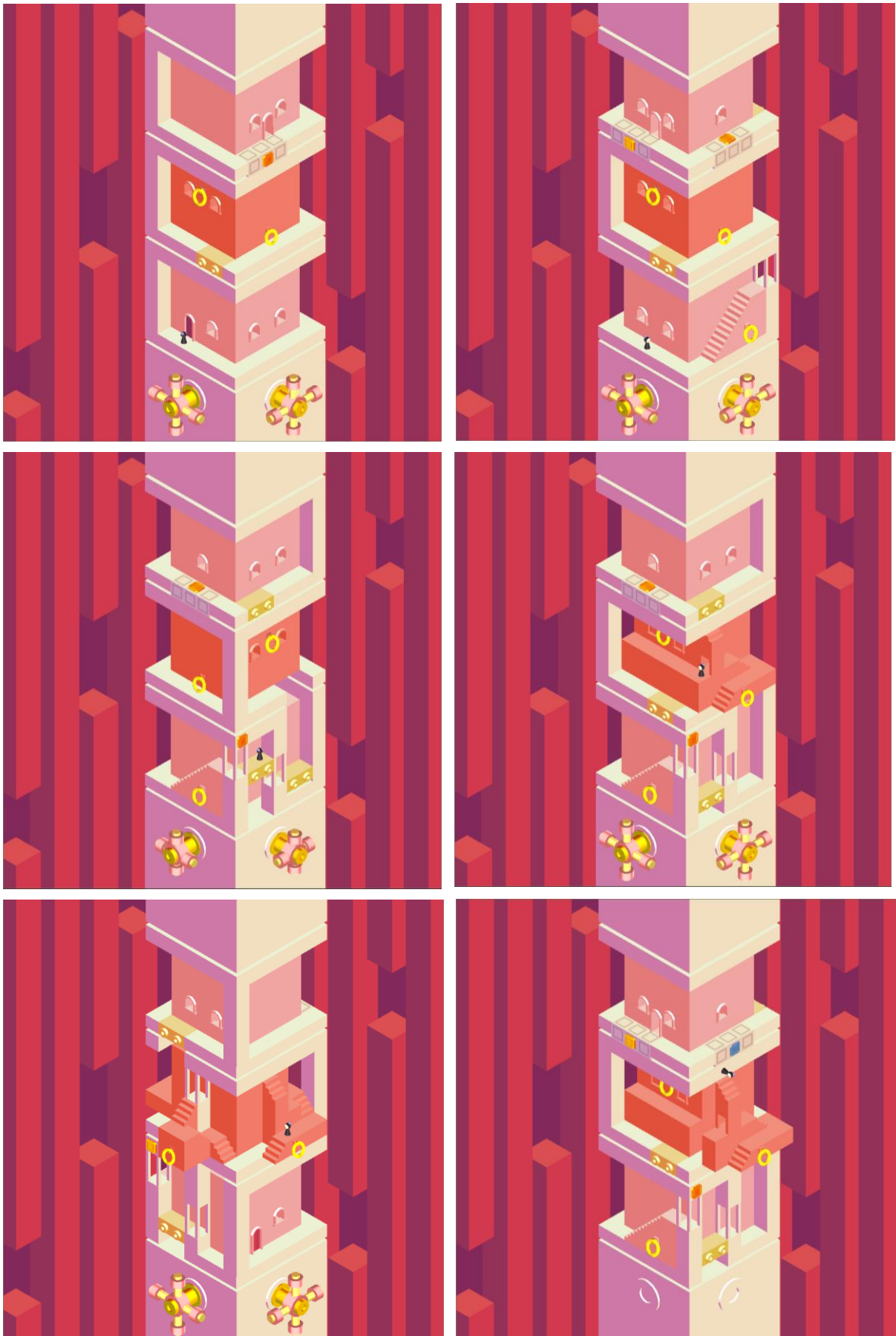
Floor 2



Floor 3



Floor 4





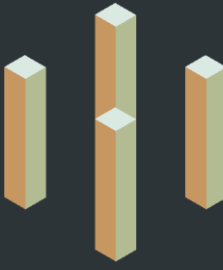







Lighthouse – Final Area



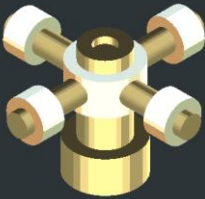






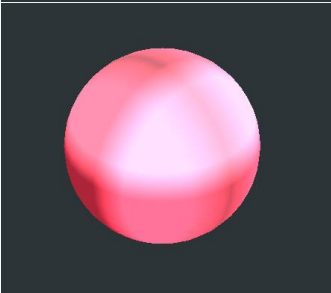

SCHEDULE

Asset List

Asset Name	Type	Description	Image
Block	Mesh	Basic cube used for level creation. Often used as the walkable floor for the player.	
Stairs	Mesh	Allow the player to move up and down.	
Small_Doorway	Mesh	The entrance/exit to rooms in the level.	
Large_Doorway	Mesh	The entrance/exit to rooms in the level.	
Arch_Legs	Mesh	Used as supports for parts of the level. The player can walk through these.	

Door	Mesh	Used to close doors that have already been travelled through.	
Window	Mesh	Decoration for walls.	
Window_With_Box	Mesh	Decoration for walls. Also contains space for plants to be placed.	
Duct_Edge	Mesh	Used to support water that is above the player.	
Bridge	Mesh	Used as walking blocks for the player.	

<p>Draggable_Block</p>	<p>Mesh</p>	<p>Can be dragged and moved by the player. Signified by nubs and different colours used compared to other blocks.</p>	
<p>Draggable_Handle</p>	<p>Mesh</p>	<p>Can be dragged by the player.</p>	
<p>Rotating_Handle</p>	<p>Mesh</p>	<p>Can be dragged by the player to rotate areas of the level.</p>	
<p>Lily_Pad</p>	<p>Mesh</p>	<p>Decoration for on the water</p>	
<p>Character</p>	<p>Mesh</p>	<p>The character which the player can move around the level</p>	

Important_Block	Texture	Used to signify when a block is more important. Can be coloured to match the rest of the level.	
Water_Shader	Shader	Used to create the effect of water in the level. Can be used for flat water and for waterfalls.	
Colourful Shader	Shader	Used to give blocks brighter shading and distinct colouration.	
Colourful_Sprite Shader	Shader	Used to give blocks brighter shading and distinct colouration with textures.	

Timeline

Task	Date to be Completed	Done
Intention	14/09/2021	Done
Case Study	21/09/2021	Done
Pipeline	28/09/2021	Done
Beat Diagram	12/10/2021	Done
Grey Block – 1 st iteration	19/10/2021	Done
Grey Block – 2 nd iteration	30/11/2021	Done
Final Level	14/12/2021	Done