



Project Threshold
game design document
Will Berendt 19/02/2025

Concept Pitch Document (Team)

Introduction

Everyone works on one level, and we all interconnect. The group involves six people, thus there are six levels, one for each. The team is Finlay, Shayan, Will, Dylan, Tom, and Kamal. Is responsible for creating a compelling prototype for Project Threshold; a single-player, first-person puzzle adventure in which players must position weighted objects on pressure pads to unlock doors. The fundamental gameplay loop is based on the spatial interactions among these elements and the analytical reasoning necessary to surmount challenges and advance.

High Concept

Player experience concepts

(what we want the player to feel) I hope for this game to generate an ongoing sense of dread/anxiety. I might do things like have sound effects such as the beast snarling, or just ambience music, move slowly, small camera view, door creaks open slowly. Frequently screw with the player for unexpected jump shocks. Have the game make the user experience serious.

Influences

Game 1: *Manifold Garden*

Gameplay: it emphasises a game that reinterprets the principles of physics. Re-examine gravity and investigate a stunning Escher-like realm of paradoxical architecture. Geometry manifests infinitely in all directions, and descending returns you to your original position.

Player Mechanics: Utilise the arrow keys and spacebar to navigate and leap inside the game environment. For instance, when the player approaches a wall or the ground, they primarily engage in re-exploring the physics of the world in an inverted manner, experiencing gravity with various twists and turns throughout the levels. The player interacts by pressing the "E" key or running the cube with the mouse to open the doors. At first, the structure consists of a couple of instructional sectors at the game, followed by an evaluation in a very big area where the player can explore many platforms to move to the next level.

Level Mechanic: Various levels exhibit distinct mechanics; nevertheless, much to Project Threshold, a box can be utilised to activate doors and facilitate progression.

Level Design: The architectural layout of the environment directs the player, facilitating exploration of the space and the subsequent discovery of a solution. Upon determining their objectives, the user receives a pop-up displaying the controls, ensuring clarity regarding their usage. When the player occupies the current floor, its colour alters to enhance visibility for the player.

Feedback: In this game, the player recognises their success by increasing their speed in completing levels and by mastering new challenges and mechanics.

The game's artistic style enhances the entertainment value of the levels, creating optical illusions that render them perplexing.

Reference walkthrough link: https://www.youtube.com/watch?v=GWoRHZ-Ri7c&ab_channel=fgw

Game 2: *The Turing Test*

The player initially receives a brief tutorial that demonstrates the game's predominantly narrative-driven nature and introduces the interaction of their selected firearm with various level components, including energy boxes and doors.

Player Mechanics: the player has a firearm capable of activating or deactivating objects.

The player is acquainted with the operation of the acquired firearm, the functionality of energy cubes, and their intended application.

Level Mechanics: Certain structures inside the level exert certain effects on other interactable elements, such as a magnet. The player can utilise energy boxes to activate specific constructions located throughout the stages.

Level Design: Initially, the level is highly confined, with illumination concentrated in the regions the player must navigate, providing clear guidance.

The narrative conveyed through dialogue will advance, allowing them to transition onto subsequent rooms, as the structure is room-based.

The game is distinctly sci-fi, as the tutorial occurs in space and numerous interactable objects, the map, and the narrative prominently feature themes such as spaceships and futuristic objects.

Reference walkthrough link:

https://www.youtube.com/watch?v=6Auv7nGf8f0&ab_channel=CooperationConundrum

Experience Goals

I want this to inspire our worry and dread while playing, deep contemplation after the deeper narrative, possibly one or two new mechanics that suit this basic notion that we can iterate on, or some suggestions for iterating on the present core mechanism. Furthermore, the house will be the venue for all the levels; hence, it will be easy for us to determine exactly what each floor ought to be since a house is already linked to every room.

Design Looks

Reviewing areas of addiction, recovery, and mental health, "The Cube" is a psychological horror game using environmental narrative and dual-state mechanisms. The game's fundamental idea centres on an enigmatic cube that symbolises drug addiction, establishing two separate gameplay states for players to traverse.

The game's fundamental idea centres on an enigmatic cube that symbolises drug addiction, establishing two separate gameplay states for players to traverse.

Fundamental Design Principles

I. Contrast of Perception

The essential merit between addiction and temperance, seen through disparate gameplay states.

Fundamental Mechanics

Visual Execution of Binary System

- Cube State: Oversaturated hues, amplified bloom effects.
- Regular State: Desaturated, shadow-dominant palette.
- Standard Condition: Delineated contours and forms.
- Degrading ecological textures.

- Authentic illumination with accentuated shadows.
- Details indicative of decay.

2. Deleterious Dependency

Addiction's Cumulative Effect

- Physical System Degradation:
 - Hand deterioration during contact
 - Progressive tremors impacting gameplay
 - Breathing changes affecting stamina
 - Augmenting visual anomalies
 - Massing corporeal injuries
 - Temporal Organisation

Mechanics of Withdrawal:

"Cube Usage Countdown Mechanism"

- Intensifying withdrawal symptoms.
- Performance detriments.
- Tolerance system requiring increased use.
- Strategic utilization periods.

Global Deterioration Impact

- Progressive structural deformation.
- Dynamic photograph/memory degradation.
- Degrading furniture and items.
- Emerging ecological threats.
- Progressive auditory design.

3. Psychological Implications

The psychological effects of addiction are evident in gameplay mechanics.

Mental State Mechanics Overview

- Integration of reality and delusion
- Deceptive audio/visual signals
- Memory impairments impacting navigation
- Dynamics of NPC trust
- Gradual user interface distortion
- Narrative Frameworks.

level concepts

This game is set in a modern horror, with a healthy, visible regular house that soon betrays its modest surroundings. The basic mechanism rotates about a mystery cube, which serves as a metaphor for drug addiction. When the protagonist clutches the cube, live hallucinations appear, providing data and parts of critical railroads for advancement in the game. When the cube is not in your player, the player may see the other half of the puzzles, but the atmosphere gets darker and gloomy.

The shadowy backdrop and character submit damage, which reflects the amount of times the draw consumes both the body and the mind. This generates an overwhelming feeling of anxiety and urgency because players must obtain their drugs while working against deadlines. The game moves away from creating dread, sensation, and immersion, and towards a daring delivery that focuses on reliance, mental health, and battling via redemption.

Components & Mechanics

Weighted Object: The player can grab, carry, then drop these. Apart from the Player Controller, they are the only elements able to activate Pressure Plates. Things can be known and effectively realised as anything that satisfies these standards.

System of cube/object interaction

Fundamental pickup mechanism:

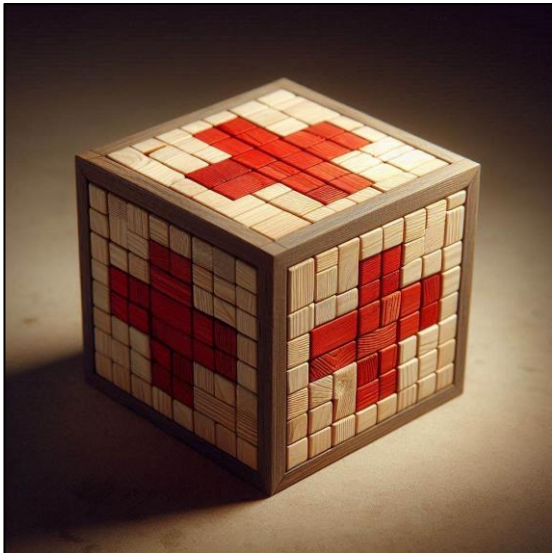
- Standard first-person interactive method whereby users may take the cube within range and while viewing it
 - o visible/UI indication when the cube is interactable
 - o Easy button press to pick up or drop (usually E key on PC or comparable controller button)

As you pick up or drop to accentuate the action, adding a minor screen effect or sound.

Reality Changing Technique:

Holding the cube:

- o Trigger immediate visual transition effect (perhaps a subtle wave or distortion);
- o Show the "hallucination" version of the environment.
- o Could include unique visual effects like:
- o Colour shifts
- o Floating particles
- o Distorted textures
- o warped geometry
- o Enable visibility of certain puzzle elements unique to this state.



When not carrying the cube:

- o Present the "normal" reality.
 - o Apply the darkening mechanic.
 - o Gradual vignette effect darkening the screen boundaries.
 - o Progressive dimming of the surroundings.
 - o Possibly utilise post-processing techniques to improve the eerie mood.
- System of depreciation of health: steady damage tick (maybe every several seconds)
- o Clear UI health;
 - o Think of including "safe zones" where players may momentarily avoid damage (screen pulse, heartbeat sound).

Pressure Plate: Only triggered when the Player Controller or a Weighted Object is now engaging with them; these relate to Doors. One can functionally realise and interpret pressure plates as anything that satisfies these requirements.

The Basic Plot

The protagonist/player is addicted to a drug, but is attempting to get off it, but the withdrawal symptoms are lethal, thus they need medicine to aid them with those withdrawal symptoms, and throughout the game, you are working your way around your house to collect this drug.

Each room in the home has a riddle to solve before moving on towards the next room, and the protagonist/player will get anxious as they urgently search for their prescription.

PROTAGONIST

Name: Mira Chen

Age: 32

Background: Former chemistry professor at a prestigious university, now on indefinite leave. Her academic curiosity led her to discover the cube while researching ancient artifacts with supposed consciousness-altering properties.

THE CUBE

Official Name: The Prismatic Artefact's Fix"

Description: A palm-sized cube that shifts between obsidian black and iridescent colours. Its surface is masked in barely visible geometric etchings that seem to move when not directly observed.

GAME MECHANICS BREAKDOWN:

WITH CUBE:

Environment becomes vibrant, almost hyperreal

Geometric patterns emerge on walls revealing puzzle solutions

Time moves faster

Player's vision becomes increasingly distorted with each use

Mira's hands shake more noticeably after each interaction

WITHOUT THE CUBE:

World grows darker, desaturated

Physical symptoms manifest (screen shake, blurred vision)

Audio becomes muffled, except for the cube's "calling"

Shadow figures appear in the periphery

Time moves painfully slow

HEALTH/SANITY SYSTEM:

"Corruption Meter" - Shows physical and mental deterioration

Increases with cube use

Causes visual distortions and hallucinations

At high levels, Mira begins seeing her own shadow move independently

SETTING:

Mira's Victorian-style home in a quiet university town

First Floor: Appears normal, gradually reveals hidden passages

Second Floor: Increasingly warped architecture

NARRATIVE HOOKS:

Mysterious notes from Mira's research partner who disappeared

University committee investigation documents

Personal journal entries showing gradual descent

Voice messages from concerned family members

News clippings about similar cases throughout history

Environment Mechanic: Another mechanic should be extended calculated experience and add complexity to the primary gameplay loop. Its usefulness should be progressively iterated upon in every level as a way of player instruction. In addition to these gameplay aspects, additional technical and creative design features

need to be used to guarantee that the prototype is both practical and entertaining. Once more, the team has the option to choose methods of creating these.

Game Manager coordinates mechanical and atmospheric aspects reflecting the protagonist's struggle, therefore acting as the brain centre of our horror experience based on addiction. Simply put, it manages a dual-state system between cube ownership and withdrawal phases, tracking the player's interaction with the odd cube. While concurrently tracking puzzle progress and monitoring the slow physical and mental decline via a well-calibrated damage system, the manager triggers vivid hallucinations and tracks cube interactions. The manager manages key gameplay cycles including player respawning, which shows up as especially disturbing "coming to" moments supporting the addiction narrative. As the player's reliance rises, it also uses a dynamic difficulty scaling method to heighten environmental darkness and adversary hostility. Features of quality-of-life are purposefully limited; puzzle resets are accessible but compromise the stability of the character and force players to consider the implications of their decisions. While the manager keeps a steady countdown guiding players towards their next desperate confrontation with the cube, this generates a continuous conflict between the urge to advance and the want to avoid more corruption. The cube control timer runs on a declining scale; initial holds could last sixty seconds, but every next use cuts this period by five per cent, increasing the strain as the game advances. A secondary countdown starts when players withdraw, slowly raising visual distortions and environmental hostility until the next cube encounter. The level transition method makes use of "sleep thresholds," which are points at which the protagonist's tiredness reaches its highest point and causes involuntary transitions between dream and reality. These changes not only load screens but also act as narrative techniques in which the architecture of the house eerily reconfigures itself. Operating on an "exhaustion meter," the dream state mechanic fills as players complete challenges in other states. Once this meter hits critical levels, players must decide whether to risk what we refer to as "deep sleep," a deadly state in which failure means permanent death and checkpoint reset, or find an exit point to "wake up," safely. The manager monitors three linked variables: cube dependency—which rises with every use—dream stability—which falls with time—and physical stamina—which is impacted by both. The Manager changes puzzle configurations depending on players' present situation as they negotiate reality and dreams; a door sealed might be broken in a dream, but the path to access it might only be clear during withdrawal. Every level zone has several escape locations highlighted by minute environmental clues like shifting shadows or warped mirrors. These are consciousness thresholds, not straightforward doors that call for circumstances to set off. Players must manage

their cube use to keep enough lucidity to identify these exits and preserve enough dream energy to get to them.

Feedback Mechanisms: These must convey pertinent changes to the game state together with current objectives so that players know how to advance. A user interface, auditory or visual cues, ambient components, or a mix of these methods could all help one realise feedback.

Placement

The structure and challenges



The Front Room is a masterpiece in environmental storytelling. The level design structure's teaching phase consists of players introducing two essential mechanics: basic movement and interaction in a familiar environment, and the reality-shifting Cube mechanic, which functions as both a gameplay element and a metaphor for addiction. The testing phase involves

navigating between the two worlds, realising how environmental aspects vary between states, simple puzzle-solving, and resource management of their "Cube time." The challenge phase ends with tasks testing mastery involving time-pressed sequences, difficult puzzles, and the character's worsening condition management while the objective **is solved**, combining technical tutorials and thematic components inside an everyday scene.

Two levels define the surroundings: Normal Reality, a tidy, well-lit suburban house, and Cube Reality, a distorted, darker form of the same area. The level's deliberate rhythm creates a fascinating loop in which players must balance their need for development against the worsening consequences of addiction.

The core themes established in the Front Room—such as the duality of addiction, the turning of familiar surroundings into hazardous environments, the cost of being dependent on both mind and body, and the fight between current wants and long-term survival—echo throughout the game.

Level mechanic

This level mechanic design set offers a thorough framework that strikes a mix between the serious subjects of addiction and mental health and gameplay

involvement. The dual-state character of the system generates conflict while preserving player agency in how they handle difficulties. While the recovery parts give optimism and other answers, weakened mechanics guarantee that acts have significant effects,

Mechanics Ideas

My First and second idea

In “System of Progressive Deterioration” and “Health Effects,” the health system functions as a dual-metric system that graphically shows the terrible effects of addiction via both psychological and bodily degradation. Acting as the quick consequence meter, the Physical Health Bar runs at 0.5% per second during cube use, generating a great dispute over required puzzle-solving and survival. Players must bear in mind the mental cost of dependence as violent screen distortions and physical symptoms become more severe as they reach the key 25% level.

In addition to this is the Mental Health Meter, a continuous damage counter lacking entirely recovery between cube uses. This meter affects important gameplay aspects: as it lowers, decision-making windows get shorter, environmental hostility rises, and the house itself seems to turn against the player with more forceful design deceit.



The interaction of these two health systems produces a downward spiral effect: physical health can regenerate during cube-inactive states, but the permanent mental health deterioration makes every subsequent recovery period more difficult, reflecting the progressively destructive character of addiction. Whether by

low cube use or smart planning of safe room trips, the system pushes players to face the total cost of their decisions while keeping enough agency to investigate several survival tactics.

Third idea,

in superluminal, there is a scenario where the player walks throughout an exit which this idea might be good for my level to transfer into another part of the level map, which is mostly focus on the as a dream states can be exhausted, leading to irreversible sleep as an outside the box to realise new perspectives on problems.

[53:52] Superliminal Full Gameplay Walkthrough:



<https://www.youtube.com/watch?v=5xCBxIZ2I48&t=291s>

4th idea,

Cube Placement Puzzle: Players need to organise the cubes in a certain way on a shelf or table. When the player places things correctly, they gain some health back, but if the player messes up, they might face some creepy surprises or lose health.

Use the cube to create shadows on the wall. Players must place the cube so that the shadows line up to create a certain shape or symbol. Finishing this puzzle might give it a health boost or uncover a secret item.

Make a sequence of colours or patterns on the cube that players need to copy. When you successfully replicate something, it brings back health, but if the player fails, a jump scare or loses some health.

Interacting with the cube makes different sounds. Players should pay attention and try to match the sounds to specific objects in the room. Figuring this out might give a health benefit or a hint for getting out.

Hidden Cube Challenge: Place the cube in a secret spot in the living room, and participants need to figure out different clues or riddles placed around the room

to locate it. Every clue might include a horror aspect, such as an eerie voice or disturbing visuals.

These ideas might build a tense vibe and keep players focused on the puzzles.

5. idea,

If the cube changes colours, it makes the gameplay more exciting! Here are a few thoughts for challenges that include the colour-changing feature:

1. **Colour Code Puzzle:** Every colour of the cube stands for a unique action or effect. For instance, red might indicate danger (like losing health), green could help restore health, and blue might allow access to a new area. Players need to find out how to adjust the cube to the correct colour to move forward or restore health. Very similar to this



This puzzle consists of 18 coloured tiles that need to be arranged in the holder to achieve the right combination for each specific challenge. Besides figuring out which tiles are necessary, the puzzler also needs to determine the orientation and order of each piece.

<https://www.goodplayguide.com/reviews/colour-code-game/#:~:text=Colour%20Code%20is%20a%20unique%20logic%20game%20that,4%20graded%20sections%20%28starter%2C%20junior%2C%20expert%20and%20master%29.>

2. **Environmental Interaction:** Some items in the living room can only be interacted with when the cube is a certain colour. For example, a door could only open when the cube is green, and a hidden compartment might only show itself when the cube is blue.

3. Colour Matching Challenge: Participants could come across various coloured lights or symbols scattered throughout the room. They must rearrange the cube to align with these colours in the right sequence to unlock a health bonus or a hint.

4. Colour Triggered Events: When the cube changes to a certain colour, it might activate various events in the room, such as ghostly apparitions or shifting furniture. The players need to keep track of the cube's colour to get through these events without getting hurt and to stay healthy.

5. Puzzle Sequence: as a design, where participants need to alter the cube's colour in a particular order, guided by visual or auditory hints discovered in the living room. Finishing the sequence might help improve health or give a big edge against challenges.

These ideas can boost the tension and strategy in your horror game, encouraging players to think critically about how to utilise the cube's colour-changing ability.

6th idea

Setting time limits can increase the excitement! Here are a few challenge ideas that include a time limit using the colour-changing cube:

1. Timed Colour Sequence: Players need to adjust the cube to match a specific colour sequence before the time runs out. If they mess up, they might lose health or cause a scary event a loud noise happening.

2. Escape Challenge: Start a timer that counts down as participants work through a series of puzzles related to the cube. Solving each puzzle correctly can give them more time, but getting answers wrong might take away some of their remaining time. If they run out of time, they experience a health penalty.

3. Colour Match Under Pressure: Players need to quickly match the cube's colours to a set of lights or symbols that flash around the room within a limited time. If they don't match them fast enough, they could end up triggering a jump scare or losing health.

4. Survival Countdown: Create a situation where players need to maintain the cube at a certain colour to fend off an impending danger. There's a time limit for keeping that colour while working on other puzzles. If time runs out and they haven't maintained the colour, they might lose health or must deal with a scary situation.

5. Puzzle Relay: Participants need to solve a sequence of puzzles in a designated order, with a time constraint for each one. Every puzzle might require altering

the cube's colour to engage with various elements in the room. If they don't finish a puzzle on time, they might lose health.

These challenges that need to be addressed quickly can ramp up the urgency and enhance the horror vibe in your game.

7th idea

A simple puzzle, but the player must match a colouring in the right section to pass the level

Audio & sound presentation

Walking - **footsteps sound effect**

<https://www.youtube.com/watch?v=Ves2SnmMc34>

Flickering Light Sound Effect

<https://www.youtube.com/watch?v=TOueemilVYU>

Level map

A normal level map where the player goes throughout the hallway into this (my level) front room, where the player must use the colour coding as seen nearby the drinks place to pass this level. For the game play, the player must order in the correct colour codes in order, blue, red and green to pass, but every time the player looks away for the pattern, it changes within a time limit.



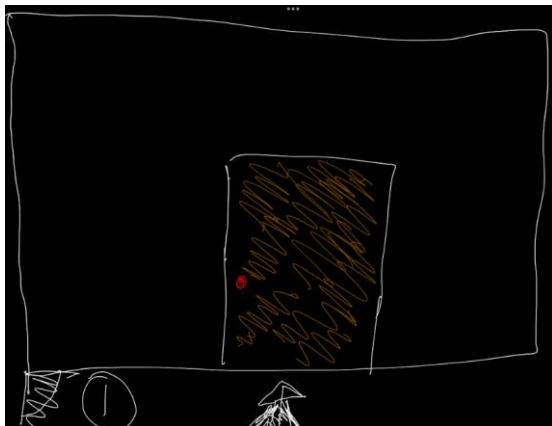
Abnormal level map



Where if not correctly the player experiences in spot the different setting where the player must be to be completed in the time limit, such as less than 25 seconds, and it reduces the player health, and the player will be in panic mode. On the bottom left, there is a bookcase where the player can go to the door where a “glossy

symptom” appears, which has been reset to start the level again.

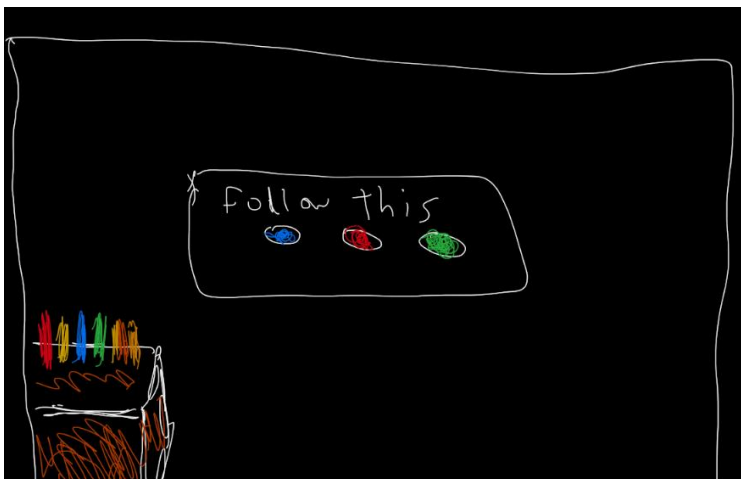
Storyboard



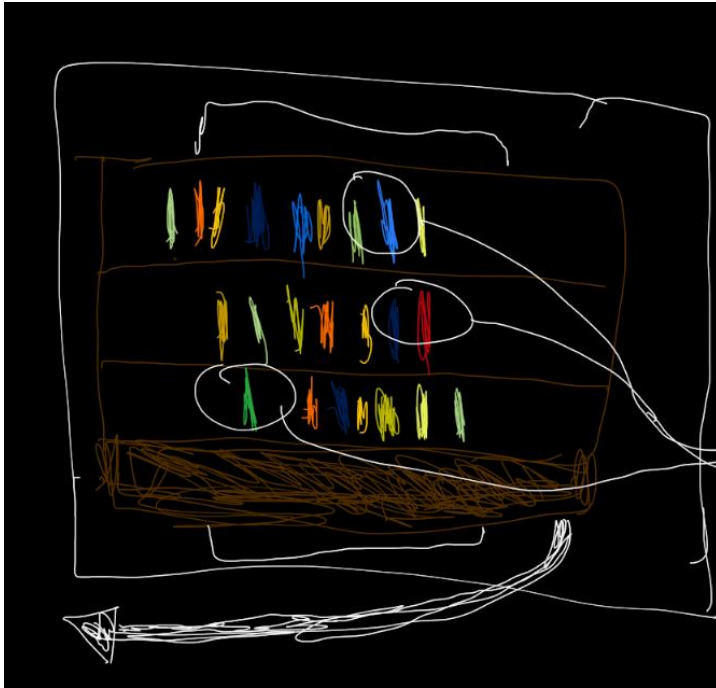
1. Once the player walks from the hallway to the door, which is, i.e., the front room, the player opens it up by turning the door handle and walks through it.



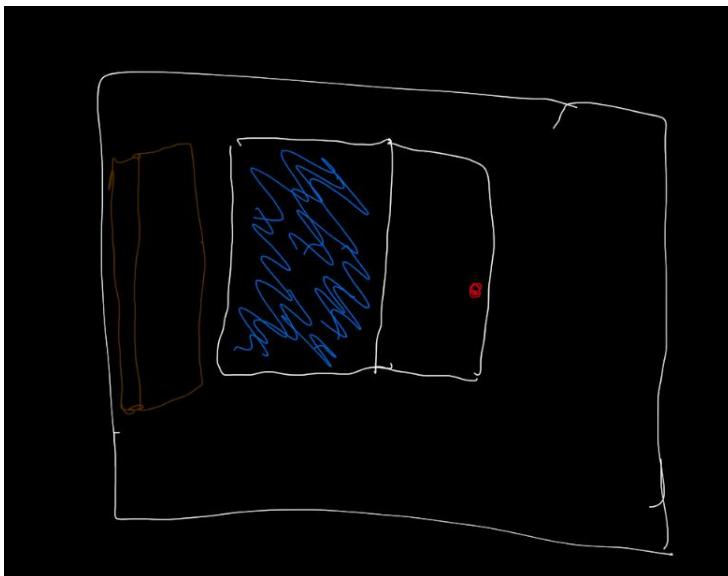
2. Next, the player walks through the door, the player has freedom to walk around the front room, interact with the TV, sit on the sofa, look at the picture and pick up a bottle of wine in the wine box.



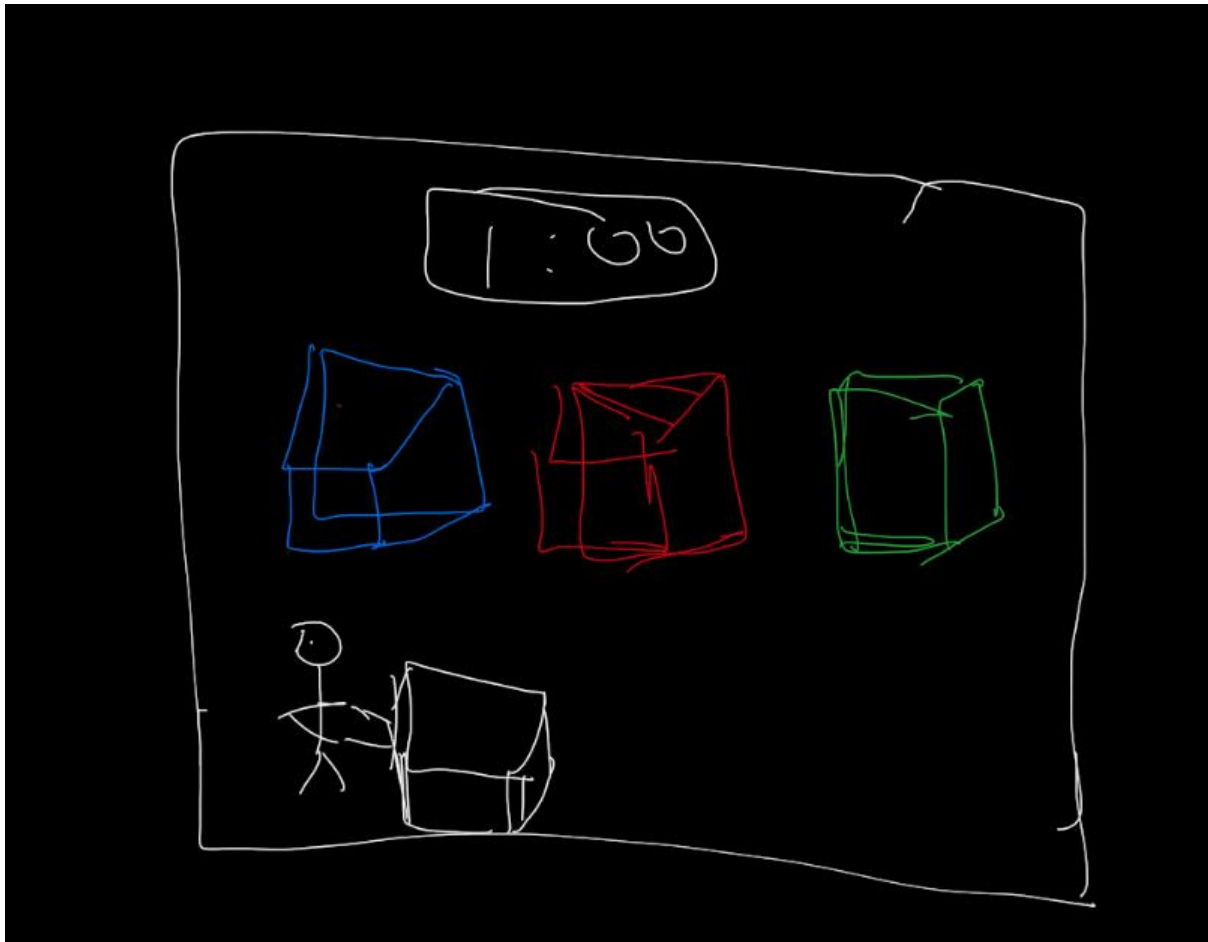
3. After the player interacts with the last picture above, they see this, follow the blue, red and green circles on the wall, they think, what is this? etc, the player looks around the room. The player sees a bookcase in the corner (next picture) and the player must remember these circles on the wall.



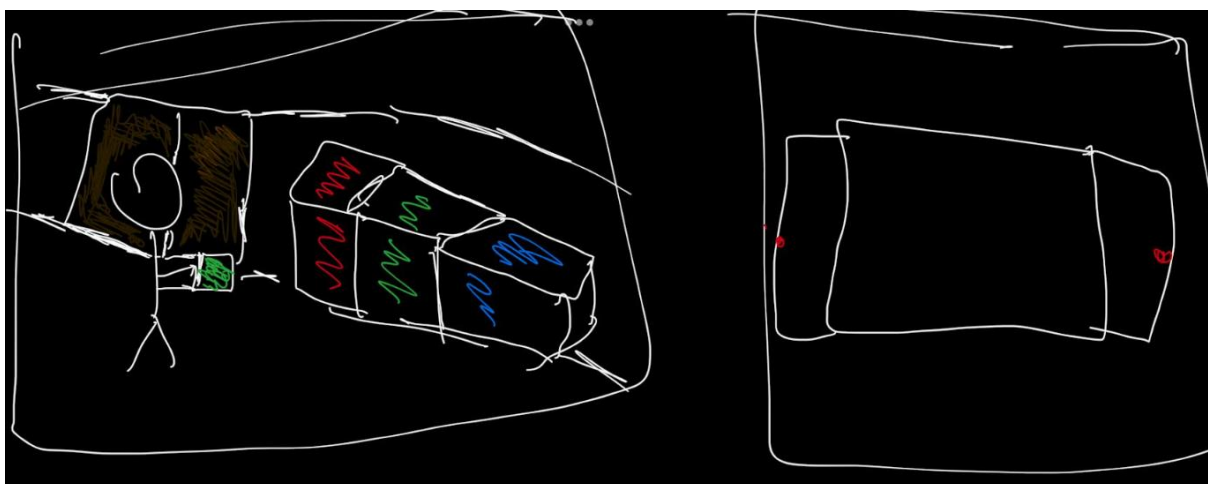
4. After that, the player must remember and pull the books (a Mechanic trigger) once all the books have been triggered in the right order, (the last picture as seen) the bookcase will be open and appear a door behind it.



5. Following this, there is a glossy in the way and the player must go into it and there are three colours as seen in the next picture.



6. As the player sees different colours like blue, red and green, the player must collect one by one throughout the glossy doorway. There is a countdown if the timer finishes, the player will see abnormal experiences in the front room, and their health system will be reduced, and the player will respawn at the door, fig.1. again.



7. The player collects all the colour cubes and brings them to the pressure points of the furniture, once it is completed, the doors for the kitchen will open and walk through to the next level.