

A dark, industrial interior scene featuring a complex network of pipes and machinery. The scene is dimly lit, with a prominent green glow emanating from a central vertical pipe and a red glow from a large pipe in the foreground. The background shows various mechanical components, including a large yellow wheel and a vertical yellow rod. The overall atmosphere is mysterious and technical.

CONNECTION COURSE



WHO MADE IT

I'm Elsa, a Finnish architect with a passion for designing everything from physical buildings to imaginative virtual worlds.

During the day, my work involves more generic architectural projects, but a growing interest in themed entertainment has turned into a personal passion project. Since there's little professional scene for it here in Finland, I've taken the initiative to explore it on my own.

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THE CONCEPT

CONNECTION COURSE

Picture an obstacle course where every challenge involves moving mechanical parts. But there's a twist: you can't tackle it alone! Your partner controls the machinery while you make your way through, and vice versa. It's simple yet brilliant — so much so that it should already exist!

This course isn't just about physical strength; it's about teamwork. Success hinges on clear communication and collaboration with your teammate(s), making it the perfect experience for team building.

That's why we call it the *Connection Course*.

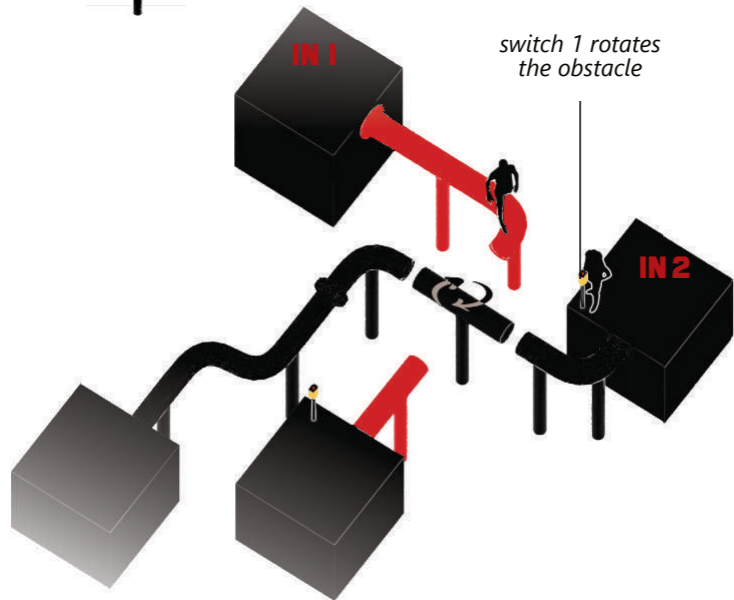
rotating bridge



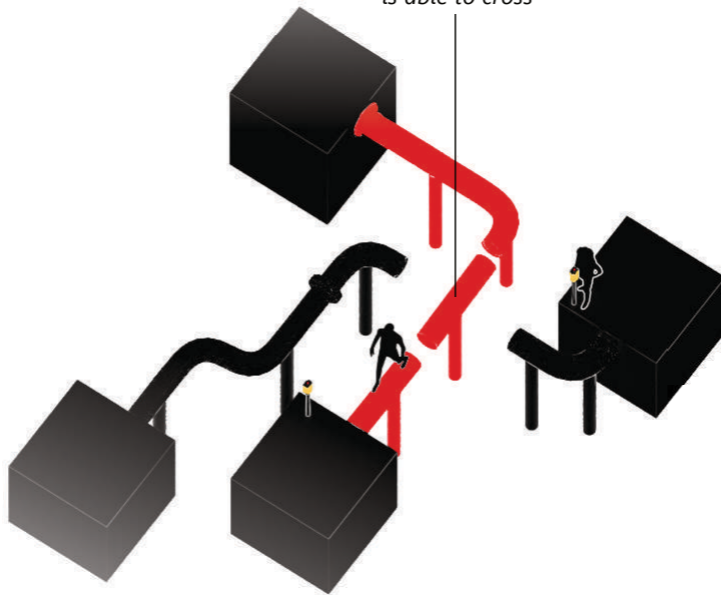
OBSTACLES

HELP EACH OTHER ACROSS

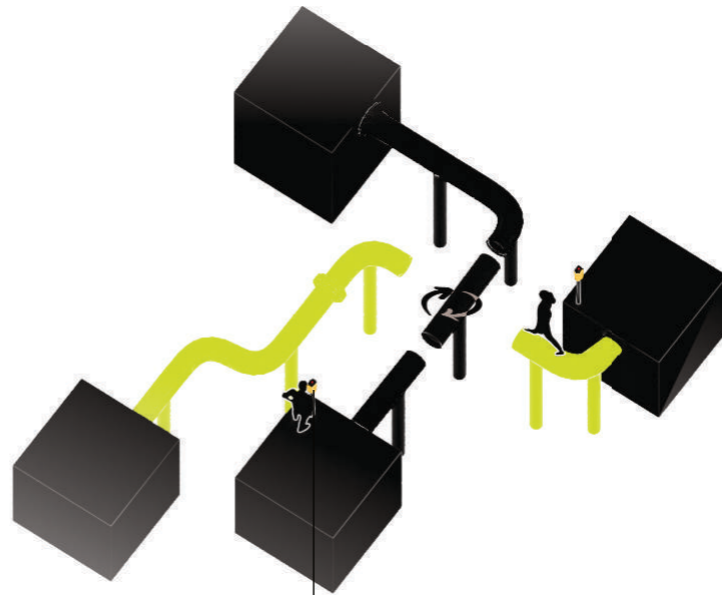
switch 1 rotates the obstacle



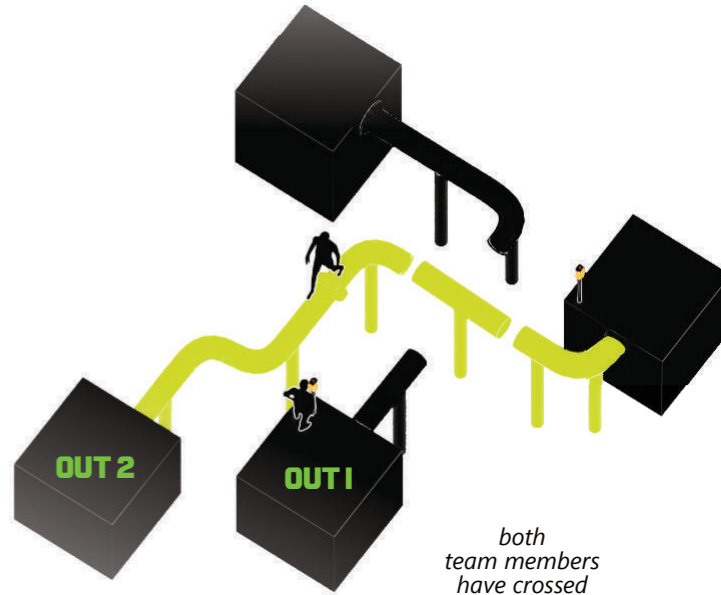
now the team member is able to cross



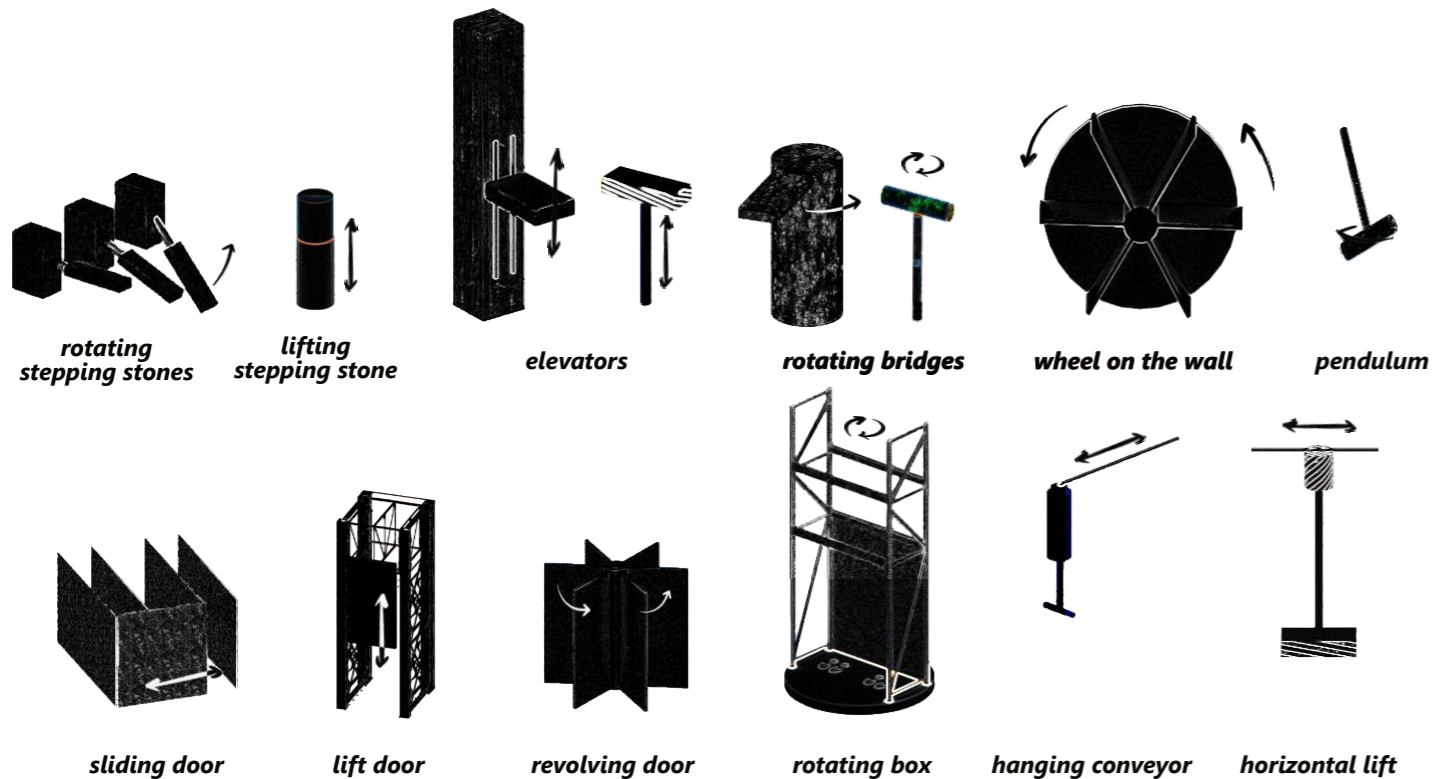
the team member gets to switch 2, which rotates the obstacle again



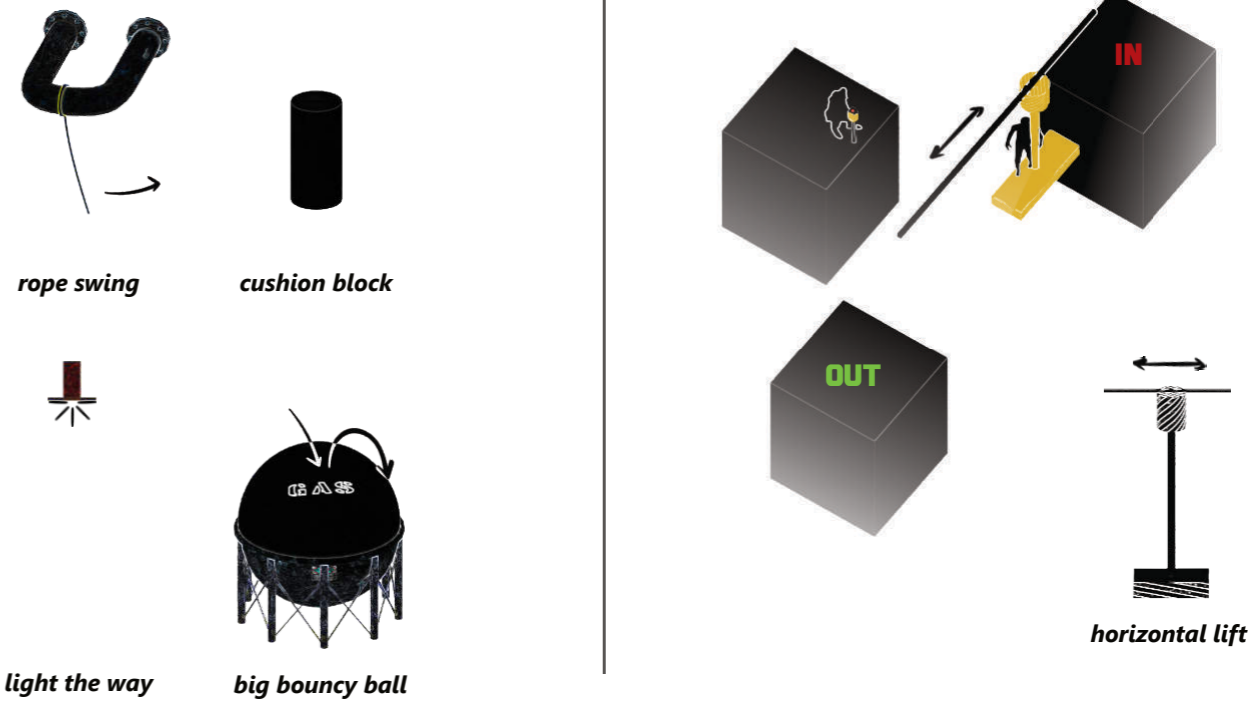
both team members have crossed



MECHANICAL OBSTACLES



OTHER OBSTACLES



CONCEPT DETAILS

TARGET DEMOGRAPHIC:

Audience: Pairs and small teams up to 6 people, including children over a specific height (due to limitations and complexity), youth, and adults.

Applications: Corporate team-building, sports teams, family bonding, couples, party groups, organizations, camps, adventure enthusiasts, etc.

CORE THEMES:

Team building, communication, and cooperation.

LOCATIONS:

Possible Venues: Theme parks, shopping malls, individual entertainment and sports centers, outdoor parks, and water parks.

Flexibility: Can be adapted to various scales and locations where physical activity is feasible.

NARRATIVE EXPERIENCE:

- Guests as characters, with the narrative depending on the chosen theme and story.
- "Feeling like being in a video game."

BUDGET VARIATIONS:

- Number and type of mechanical obstacles / Whether pairs travel the same path or not
- Scale of the space used
- Number of players accommodated

LOCATION VARIATIONS:

- Outdoor or indoor settings
- Adaptations for water park environments
- Custom placemaking to fit different themes, possibilities to adjust the theme to fit for the physical place
- Arena setups with a storyline and streamlined flow, or free-roaming in larger areas.
- Easily integrates with various IPs due to its adaptable concept

INTEGRATED TECHNOLOGY:

- VR additions for immersive experiences

SUSTAINABILITY:

- Use of green energy sources for electricity
- Small-scale variations powered by physical energy conversion
- Design elements integrated into the “host” building’s theme to minimize artificial placemaking
- Recycled materials in compliance with local regulations

SAFETY:

- Limited trajectories for kinetic parts and safety distances to prevent crushing
- Sensors that sense the position of participants
- Use of safe materials and drop platforms (e.g., foam pits, nets, water) with cushioning around obstacles
- Multiple exit routes and options to skip obstacles
- Adherence to standard fire and electrical safety regulations

OPERATIONAL EFFICIENCY:

- Multiple groups can navigate the course simultaneously with staggered starts
- Handling potential bottlenecks and adjust timing between groups with software
- Optional “storytelling rooms” with varied video content to enhance experience and manage flow

REVENUE:

Seasonality: Usable year-round

Capacity Expansion: Strategies to attract larger groups and increase hourly throughput

IDEAS FOR ADDITIONAL INCOME:

- On-site restaurants in waiting areas
- Branded merchandise
- Minigames and challenges outside the main course
- Paid competitions
- Photo opportunities at notable spots
- Sponsorships and branded obstacles

Since the concept's capacity is limited, it's reasonable to consider allocating enough space for additional operations to boost income.

THE EXAMPLE PROJECT

PULSETOX CHEMICAL PLANT

The example project transports us to an abandoned factory setting — a familiar theme that allows us to effectively utilize well-known placemaking elements. This setting complements the mechanical nature of the concept. Even better, with numerous empty factories around the world, you might be able to take one and adjust the concept to fit the space.

01

THE BACKSTORY

The participants begin their journey in a small room where they are faced with an infodump. The setup features a wall-mounted screen displaying an important message:

4.4.2045

Dear Friends,

I have a huge secret. You may remember that I once worked in the observation tower at the Pulsetox Chemical Plant, a place known for its groundbreaking research.

One of our most significant breakthroughs was the discovery of a powerful energy compound. Unfortunately, in 2024, internal conflicts led to the sudden shutdown of the project. Almost all samples were seized and destroyed against our will. A colleague of mine suspected this would happen and asked me to hide a sample in the observation tower, thinking the officials wouldn't look there.

She was right. The sample I hid remained safe while all others were taken. Only I knew its exact location.

The very next day, an oddly timed and suspicious disaster struck, forcing an evacuation of the plant. In the chaos, I couldn't return to the tower to secure the vial.

Fearing we might be taken away, I prepared this message as a precaution, hoping it would never see the light of day. But if you're reading this, it means AI has detected recent earthquakes that have further damaged the facility, automatically sending this alert. If the vault is damaged, the compound could leak and cause a harmful, dangerous cloud with devastating consequences.

As I'm gone, the burden now falls to you. Your mission is clear: navigate through the facility, reach the observation tower, and secure the vial before it's too late.

The future depends on your success.

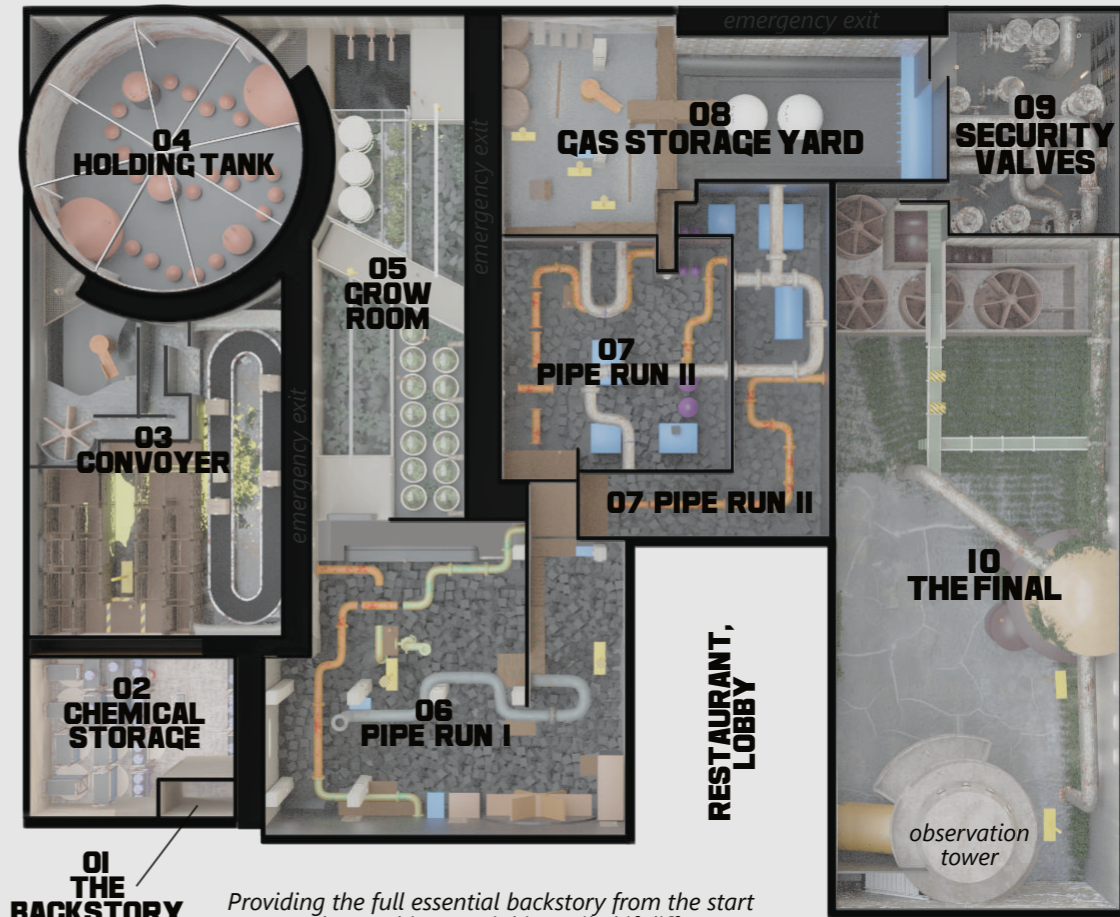
Stay safe,

J.P.

THEMED COURSE AREA
emergency exits included

2497 m²
26 877 ft²

About half of the usable area is left for mini-games, a larger arena, a shop, a restaurant, etc.



01 THE BACKSTORY

Providing the full essential backstory from the start ensures that nothing crucial is spoiled if different teams end up meeting each other on the course. It also allows teams to progress more quickly, enhancing the flow of the experience and increasing the course's hourly capacity.

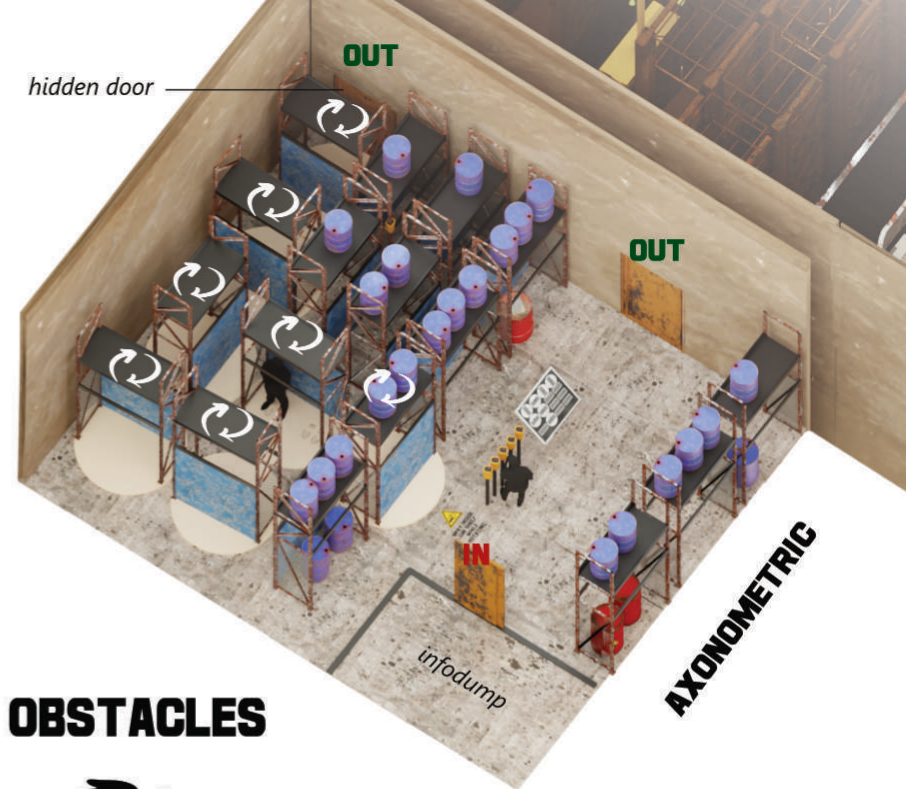
02

THE CHEMICAL STORAGE



2.1 The shelves and the guide

Participants enter a room that looks like a storage, but the shelves are special: they have a hidden rotating feature. When one team member stands inside a shelf, another team member can control the rotation. Together, the shelves create a secret path leading to a hidden back door.



OBSTACLES



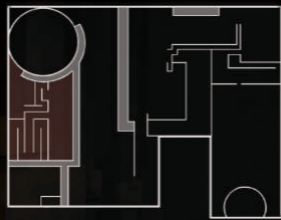
SAFETY

The shelves have sensors that only allow movement if the participant stays in the right spot. The sides of the shelves are also covered, so it's impossible to get hands between the moving parts.

This is the only room where team roles are strictly defined — one is the operator, and the other is the crosser. Tailoring obstacles to each role personalizes the experience, encouraging repeat visits to explore the other role.

03

THE CONVEYOR



The selected chronological storyboard:



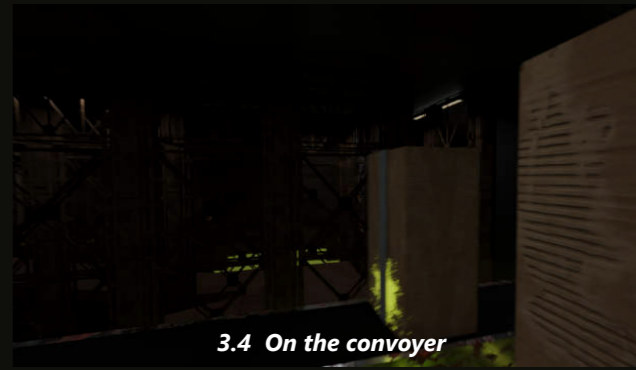
3.1 Entering the conveyor

3.2 Lifting door ahead

3.3 The ride over the spill

The backdoors lead the participants to a rusty pathway with an old conveyor belt at its end. To progress to the next area, teams must discover the hidden entrance by riding the conveyor.

After the ride, the team enters a dark space with a revolving door and a large crack in the floor. To avoid the crack, they must cross an orange rotating bridge.

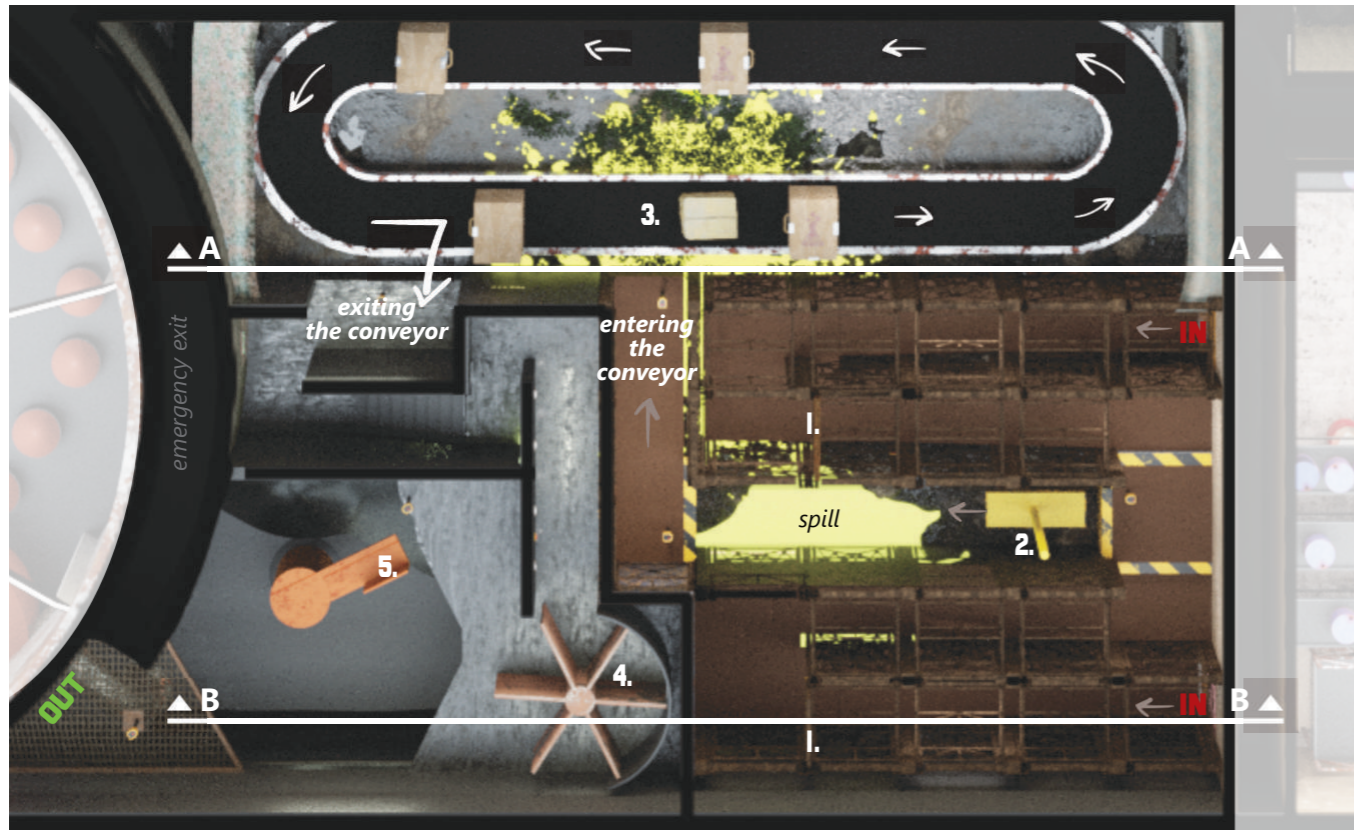


3.4 On the conveyor

In all rooms, dark yet energetic music fills the space, encouraging a constant flow.

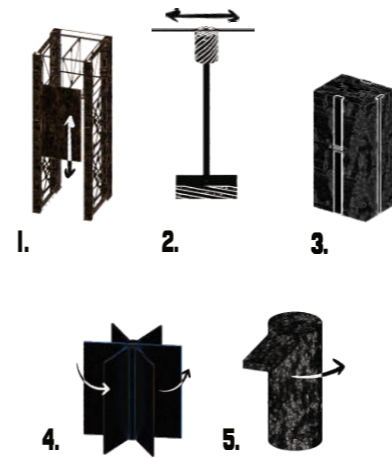


3.5 The orange bridge



AERIAL PERSPECTIVE

OBSTACLES

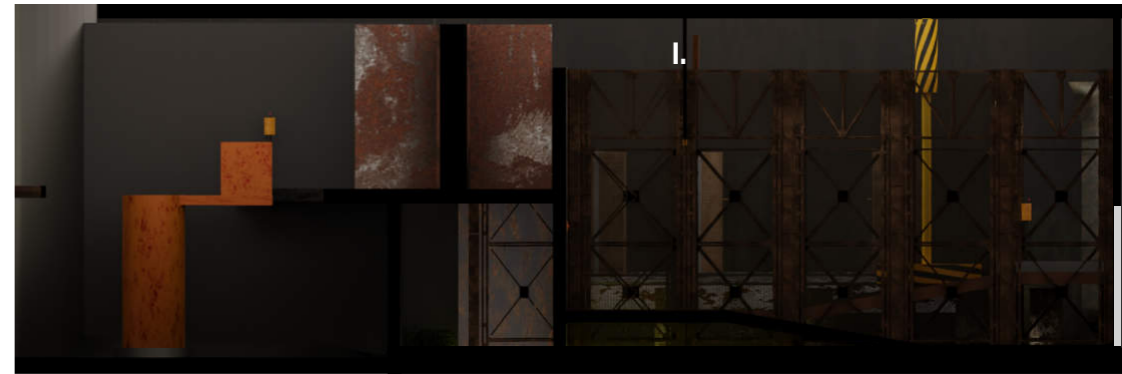


10 m

50 ft



SECTION A - A



SECTION B - B

04

THE HOLDING TANK



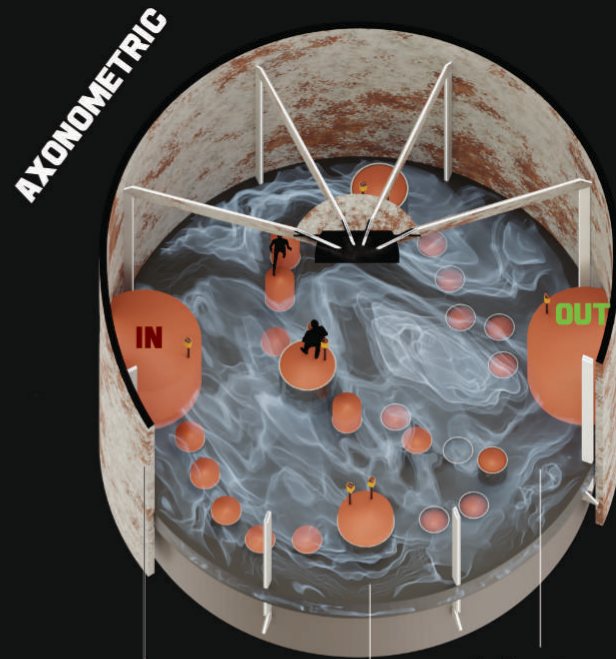
4.1 Entering the tank

Next, the participants enter a dark, rusty tank. They must help each other to cross by controlling stepping stones that go up and down. The floor is covered in foam, not water, and the dim atmosphere is created with light effects.

OBSTACLES



lifting stepping stone



skip lane and emergency exit on the outer ring (not shown)

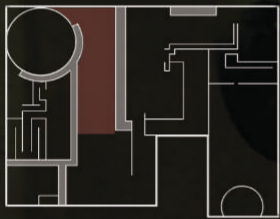
foam mat with holes

light patterns

Each room has an emergency exit, and some obstacles can be skipped. This flexibility is for anyone who may feel uneasy with the challenge ahead.

05

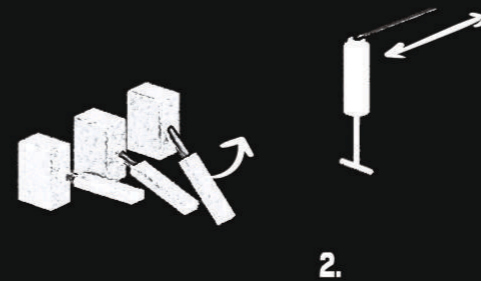
THE GROW ROOM



5.1 About to fly

After exiting the tank, the team finds themselves in a room filled with plants grown for scientific research. There's no obvious way to the next area, so participants must cross rotating stepping stones and use an old irrigation device to swing over the plants and find their path forward.

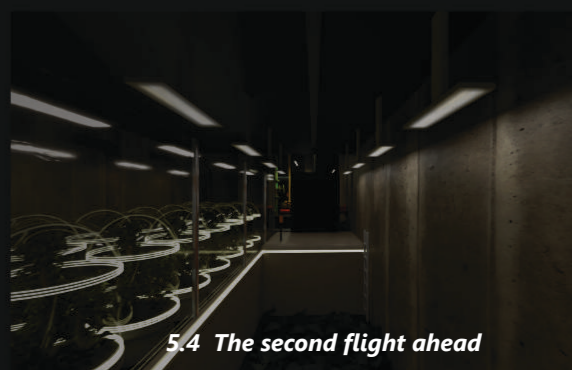
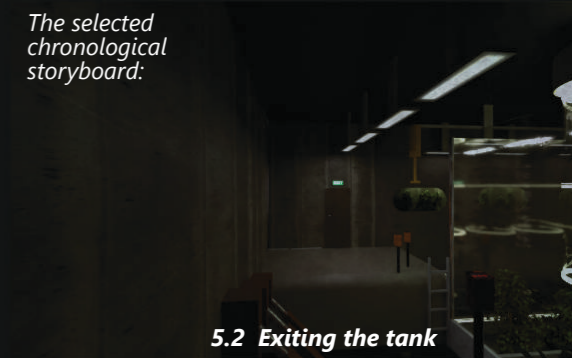
OBSTACLES



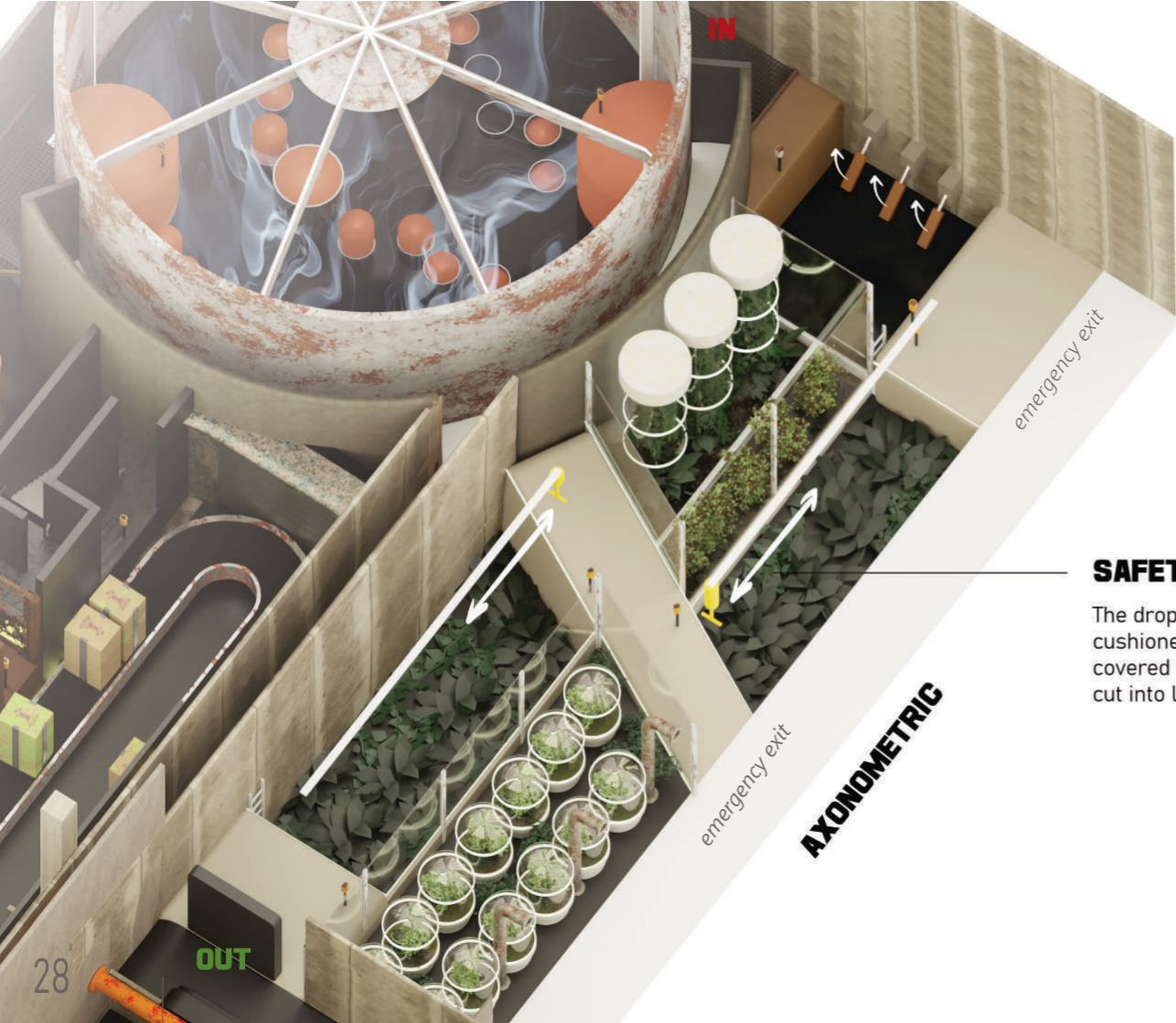
5.2 Exiting the tank

5.3 After the first flight

5.4 The second flight ahead



The selected chronological storyboard:



SAFETY

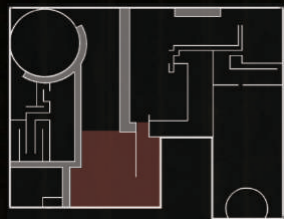
The drop surface is cushioned with foam and covered with fabric pieces cut into leaf shapes.



AERIAL PERSPECTIVE

06

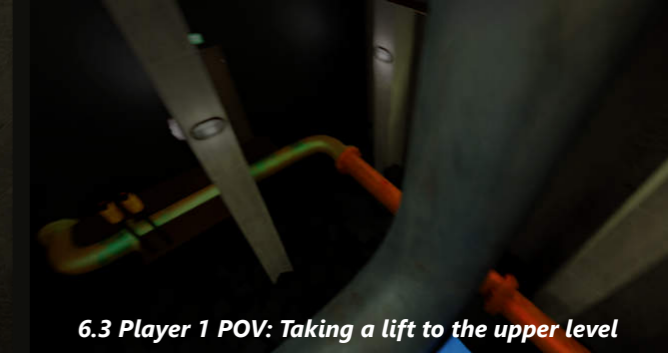
PIPE RUN I



6.1 Entering the Pipe Run



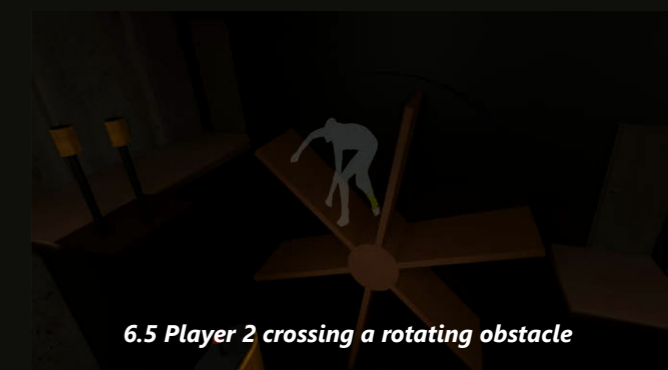
6.2 The rotating pipe is used in both paths



6.3 Player 1 POV: Taking a lift to the upper level



6.4 Walking to the next control point



6.5 Player 2 crossing a rotating obstacle

The selected chronological storyboard:

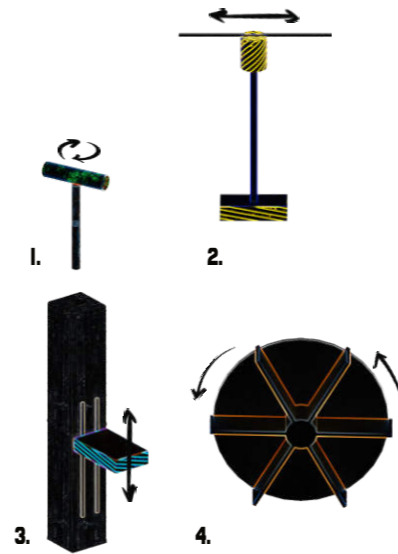
Here begins the longest part of the course. In the first room, the team needs to walk over pipes and use various elevators and vertical lifts to help each other move forward. The course has two levels: red and green pipes are on the lower level, and gray pipes are on the upper level.

Participants will navigate their own paths until they come together at the end.



AERIAL PERSPECTIVE

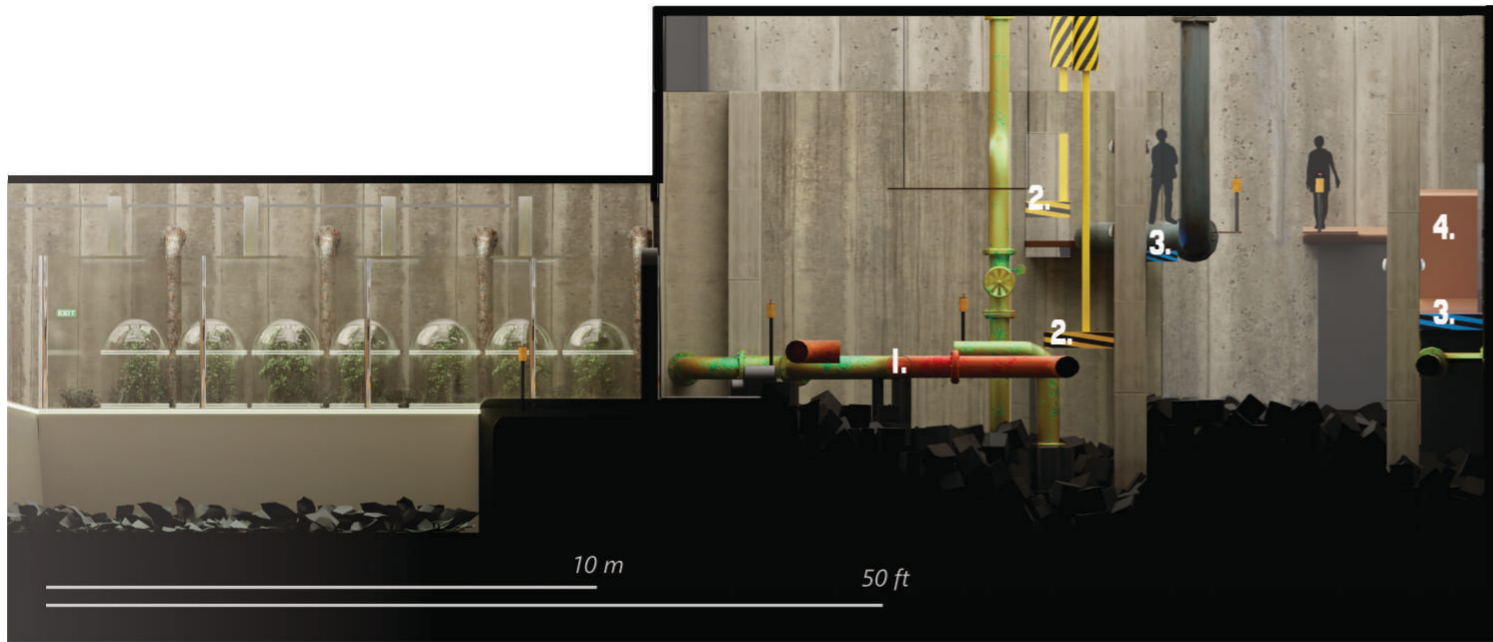
OBSTACLES



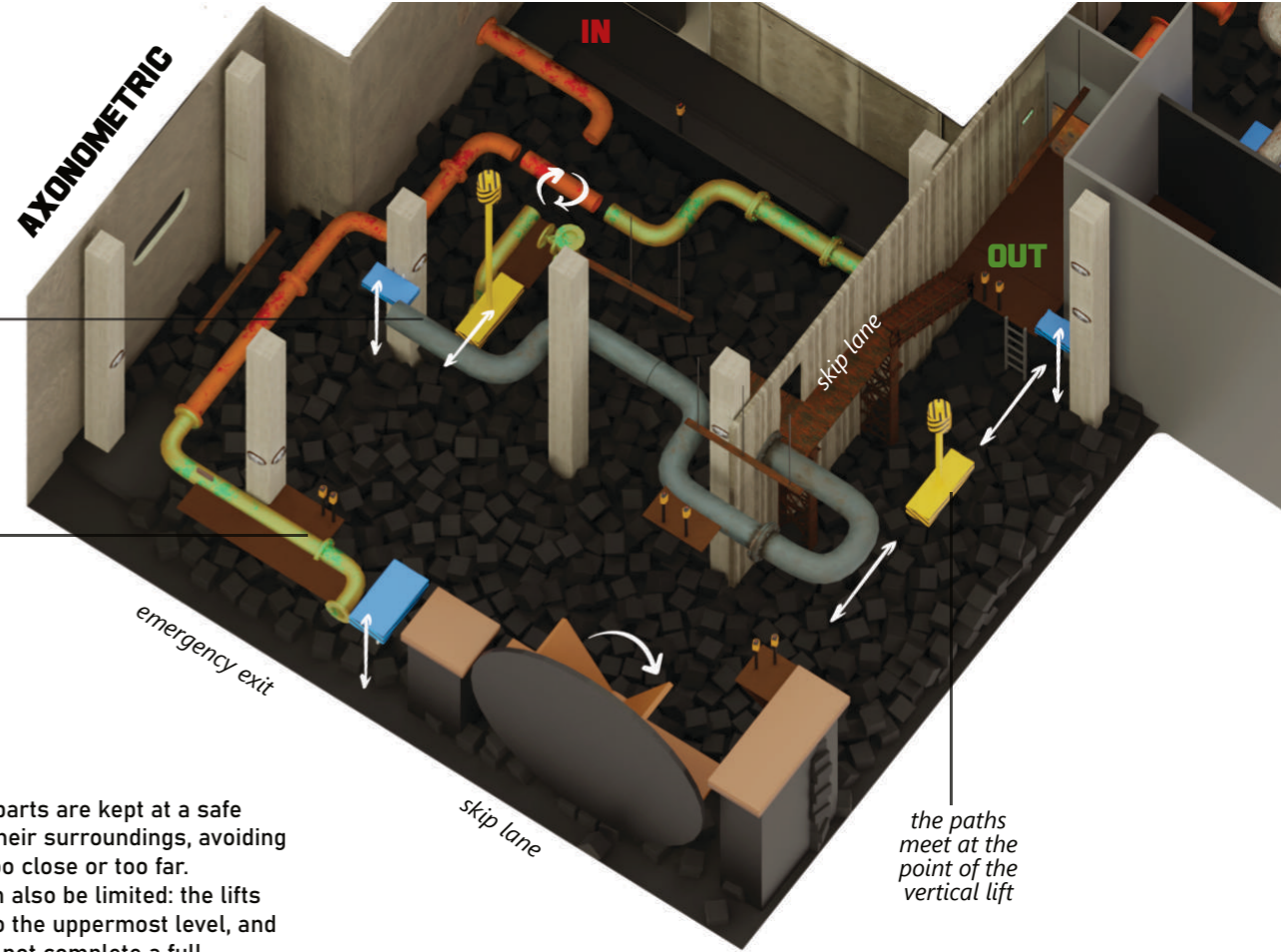
6.6 Another vertical lift connects the two paths

6.7 On the vertical lift

6.8 An elevator puts the players down to the finish



SECTION C - C



player 1's path stays in the center of the room

player 2's path runs alongside the outer walls

SAFETY

All the moving parts are kept at a safe distance from their surroundings, avoiding gaps that are too close or too far. Trajectories can also be limited: the lifts do not extend to the uppermost level, and the wheel does not complete a full rotation, further enhancing safety.

the paths meet at the point of the vertical lift

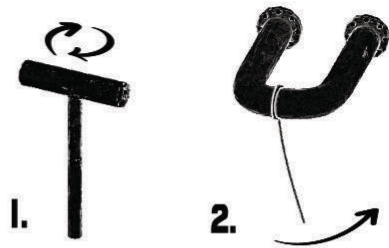
07

PIPE RUN II



7.1 Looking back from the second blue cushion, room 1

OBSTACLES



This section continues the journey on the pipes, but participants stay closer to the ground.

As the previous room was more complicated and takes different teams different times to finish, this space serves as a bottleneck releaser: there are two different rooms with the same obstacles, and the participants are assigned to an empty room.

The participants get across the room by rotating pipes and rope swings.



AERIAL PERSPECTIVE

08

GAS STORAGE AREA



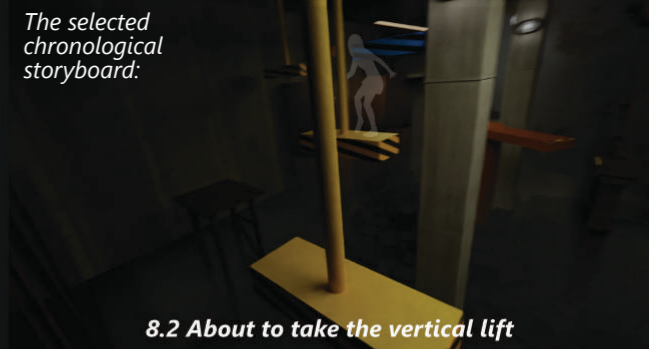
8.1 The misty and unsettling atmosphere

A similar activity continues in the next room, themed as a gas storage area.

Fog machine smoke and strategic lighting, combined with dark, waterproof cushioning, distorts the sense of height and creates an unsettling atmosphere.

The team navigates through lifts and bridges, eventually reaching a structure with large spherical gas tanks. These tanks are actually large bouncy balls. Participants must take a leap of faith to jump across the balls and land safely on a soft surface.

The selected chronological storyboard:



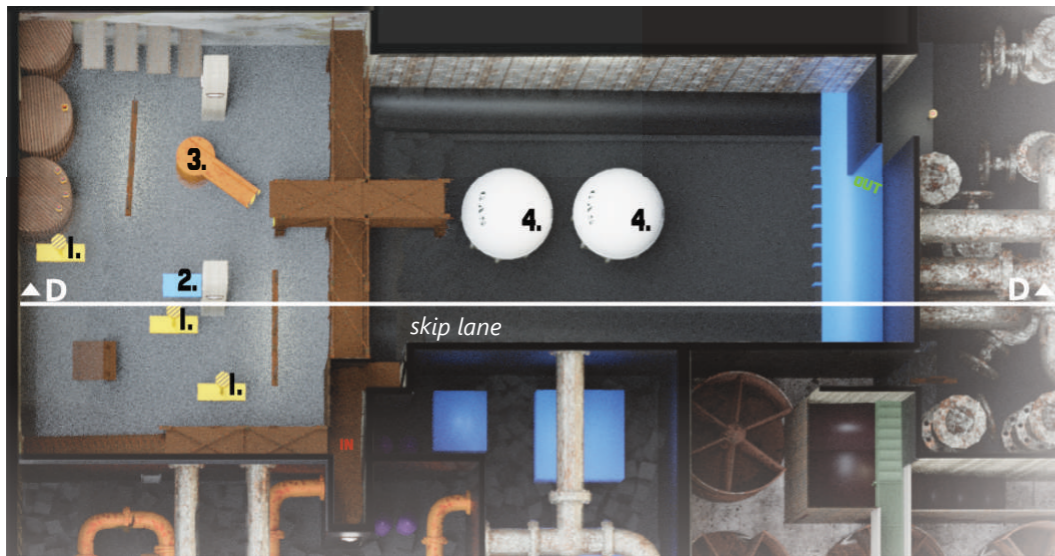
8.2 About to take the vertical lift



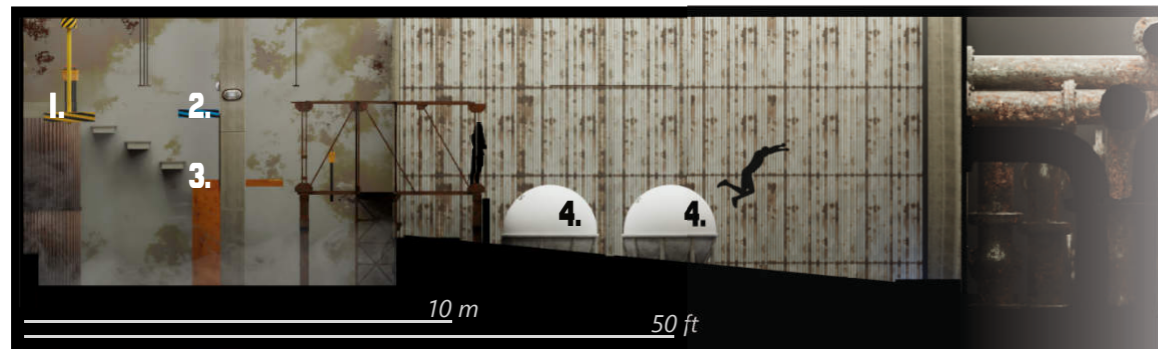
8.3 Another orange bridge



8.3 Preparing for the jump

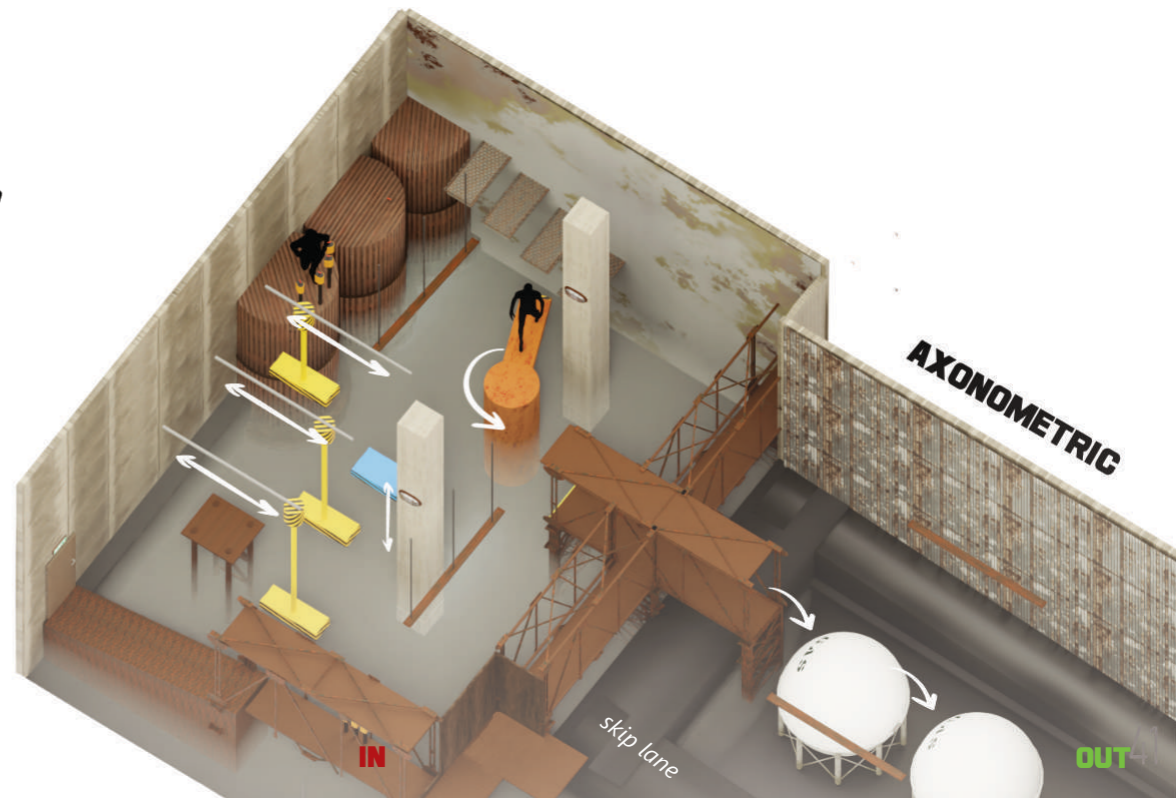
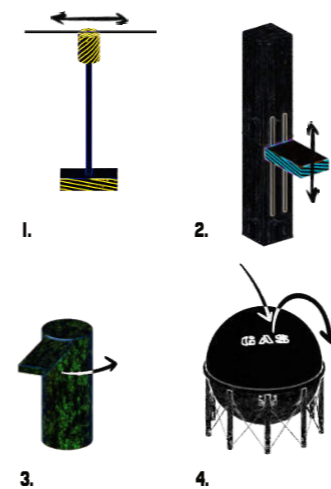


AERIAL PERSPECTIVE



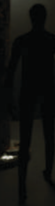
SECTION D - D

OBSTACLES



09

THE SECURITY VALVES



OBSTACLES



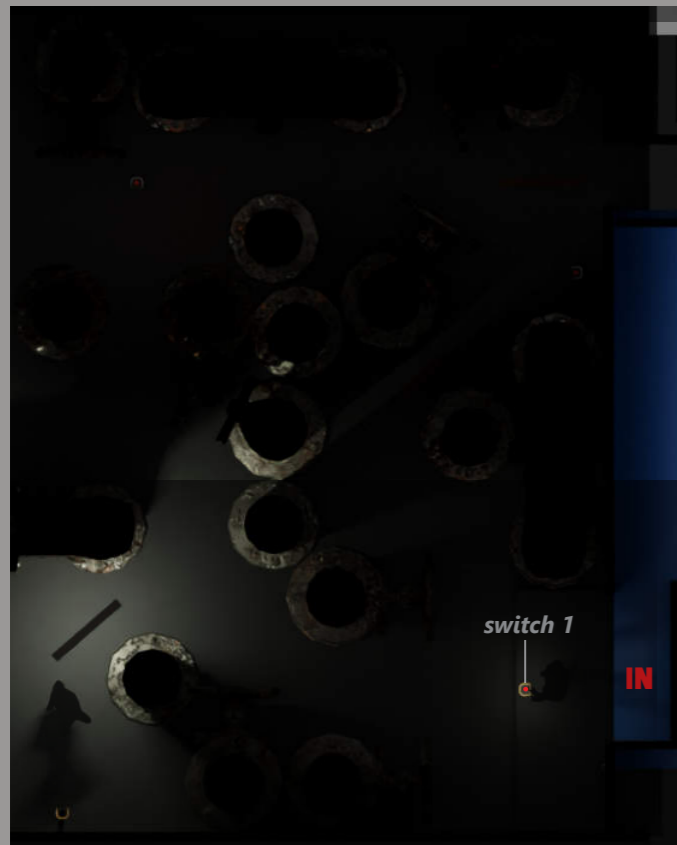
I.
light the way

After the jump, the participants enter a pitch-black room.

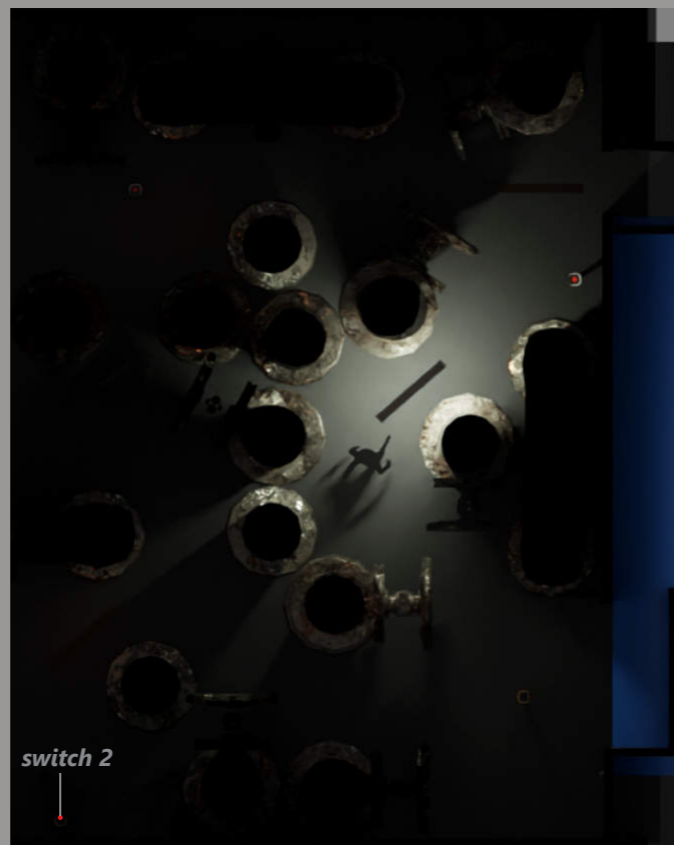
In front of them lies a maze of rusted pipes and valves. One team member presses a button, and a faint light flickers on, illuminating a narrow path. The other member must navigate through the darkness, following the brief glow to the next button. Only one light shines at a time, leaving the rest of the maze in shadows.



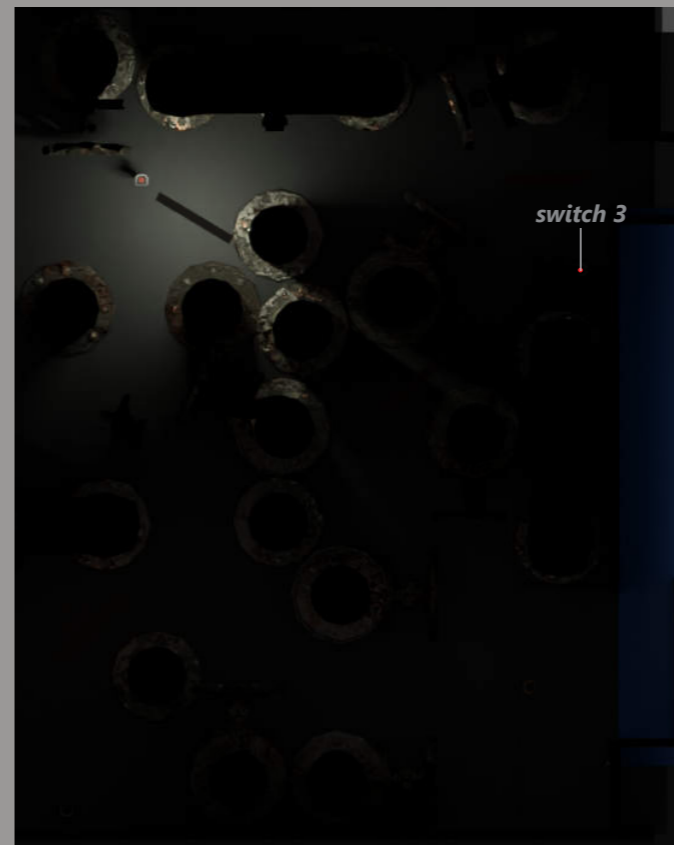
FLOOR PLANS, ORTHOGRAPHIC



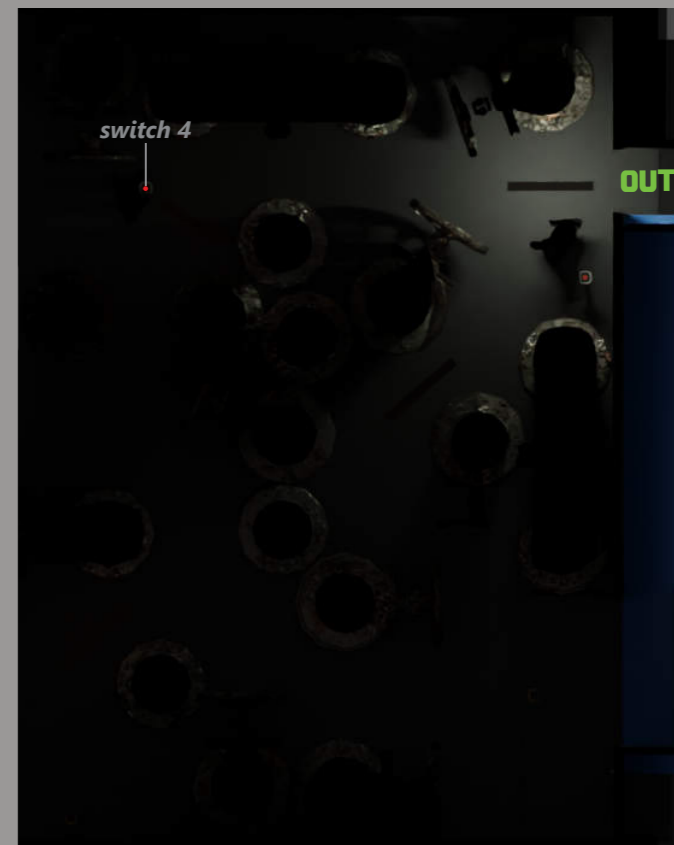
STEP 1



STEP 2



STEP 3



STEP 4

10

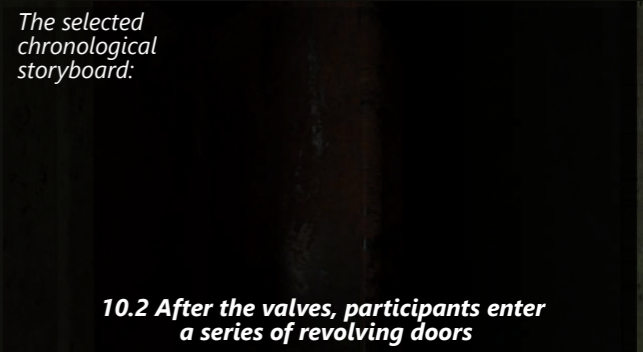
THE FINAL



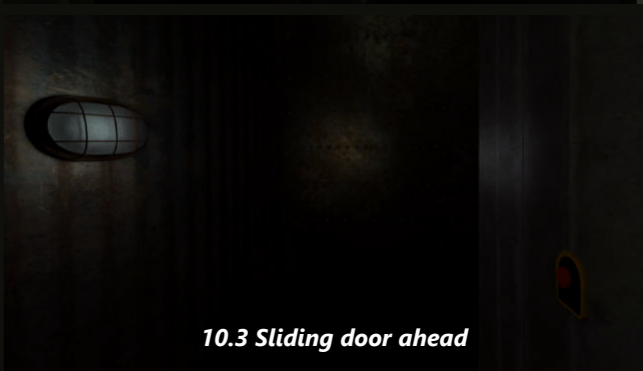
10.1 About to ride a hanging conveyor

The team exits the dark room through several revolving doors and encounters a massive staircase made of cushions, leading them up to the roof level. Finally, they see the tower—twisted and shattered by the earthquakes.

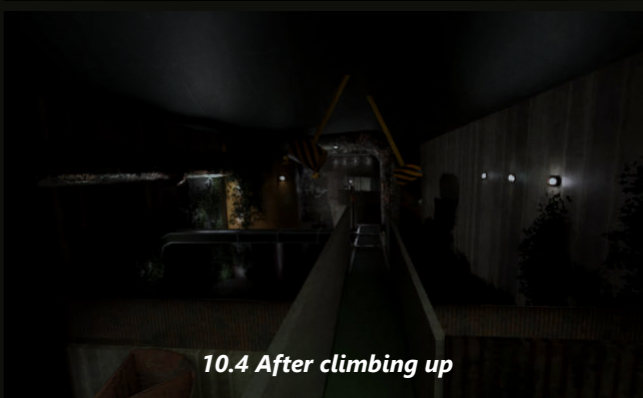
The selected chronological storyboard:



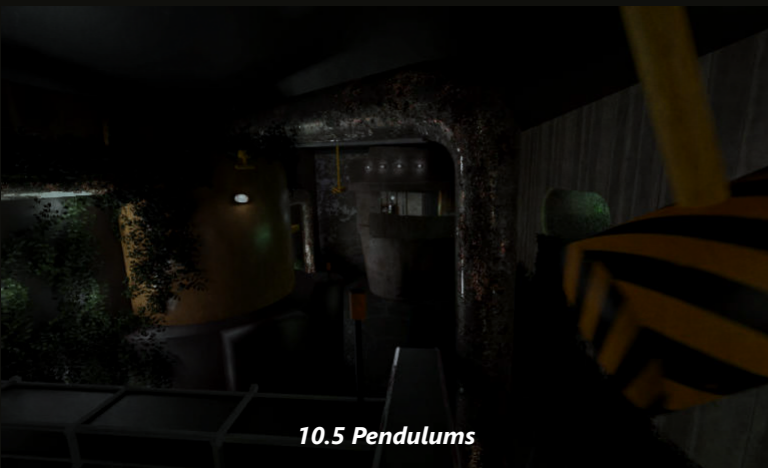
10.2 After the valves, participants enter a series of revolving doors



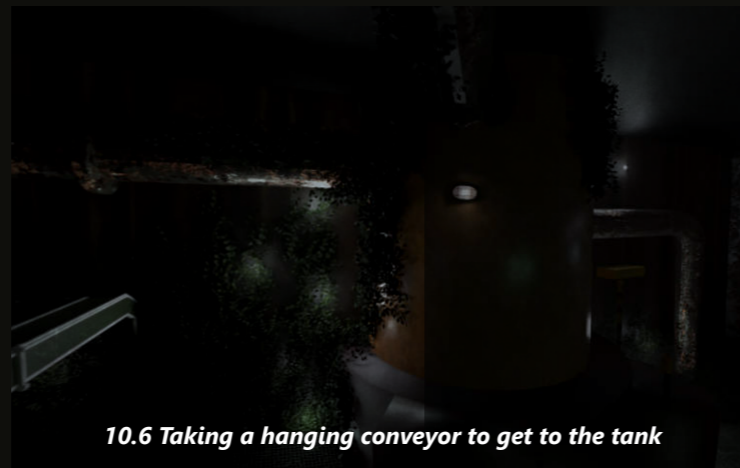
10.3 Sliding door ahead



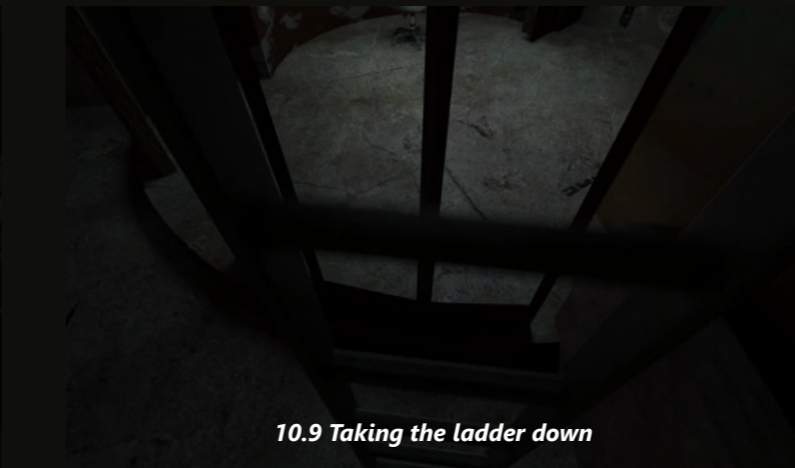
10.4 After climbing up



10.5 Pendulums



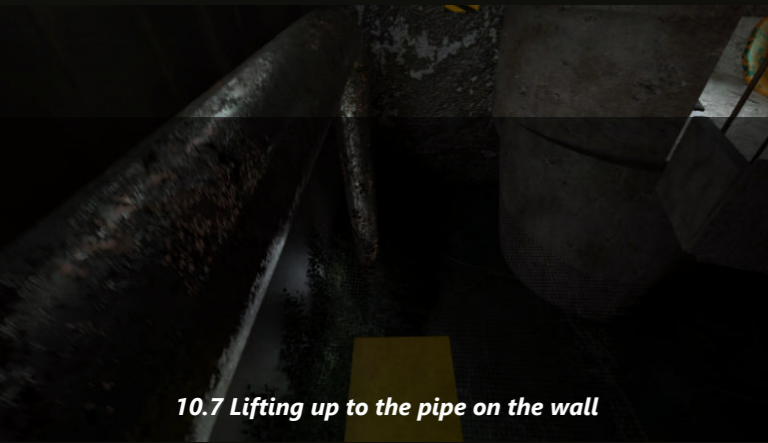
10.6 Taking a hanging conveyor to get to the tank



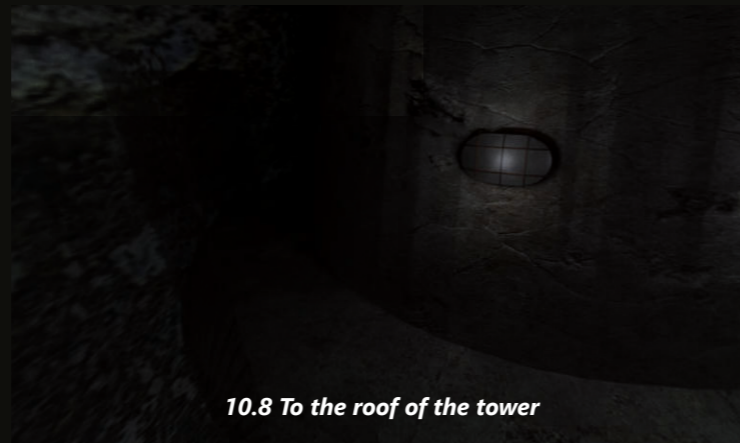
10.9 Taking the ladder down



10.11 The tower shows signs of earthquakes



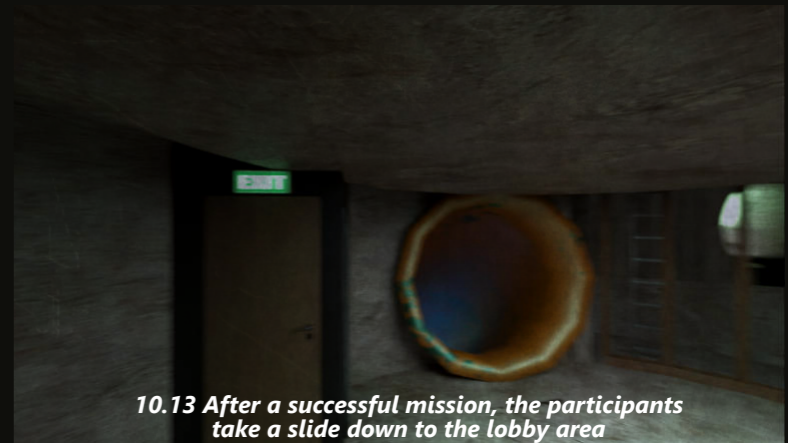
10.7 Lifting up to the pipe on the wall



10.8 To the roof of the tower



10.12 Found the vial!

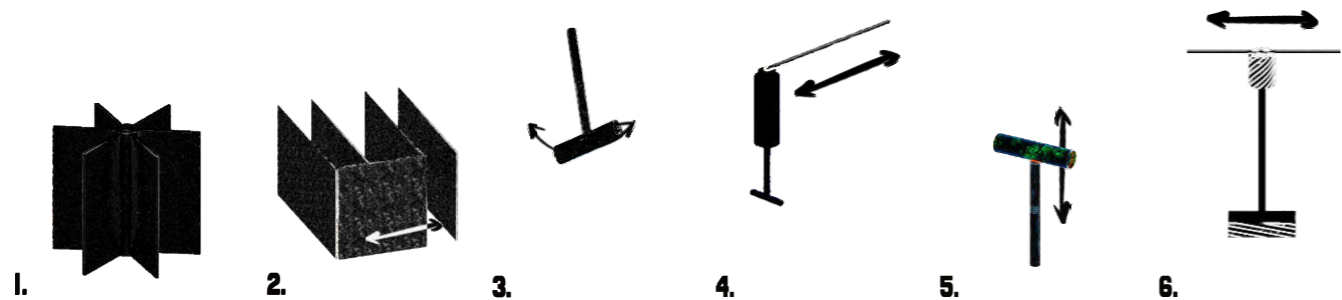


10.13 After a successful mission, the participants take a slide down to the lobby area



AERIAL PERSPECTIVE

OBSTACLES



SECTION E - E

The illusion of a higher space is created using forced perspective; the plants appear smaller as they recede towards the ground, the pipes narrow in the distance, and the colors shift to darker and less saturated hues.

THE PROCESS

I've never before taken part in a design competition just on my own, so it was an interesting experience. You go through all the feelings and ideas alone.

I arrived at the core concept relatively quickly. Once I realized I'd be working with moving parts, I dove into 3D modeling. For me, it's the most intuitive way to animate and visualize movement, as I still struggle to fully grasp and represent motion through sketching alone.

I used AI to improve my English, and also to provide some insights into best practices in the field. However, I found David Younger's book *Theme Park Design* to help me even more with this.

Making this proposal was an inspirational project.
So many possibilities are still swirling in my mind.

Thank you for this opportunity!

