

C337 CA2

Game Design Document

Naufal Hilman
(24043273)

Overview of the Game

Title: Protocol IX

Genre: Sci-fi, Mystery

Mode: Single-Player

Engine: Unity + C#

Platform: Virtual Reality

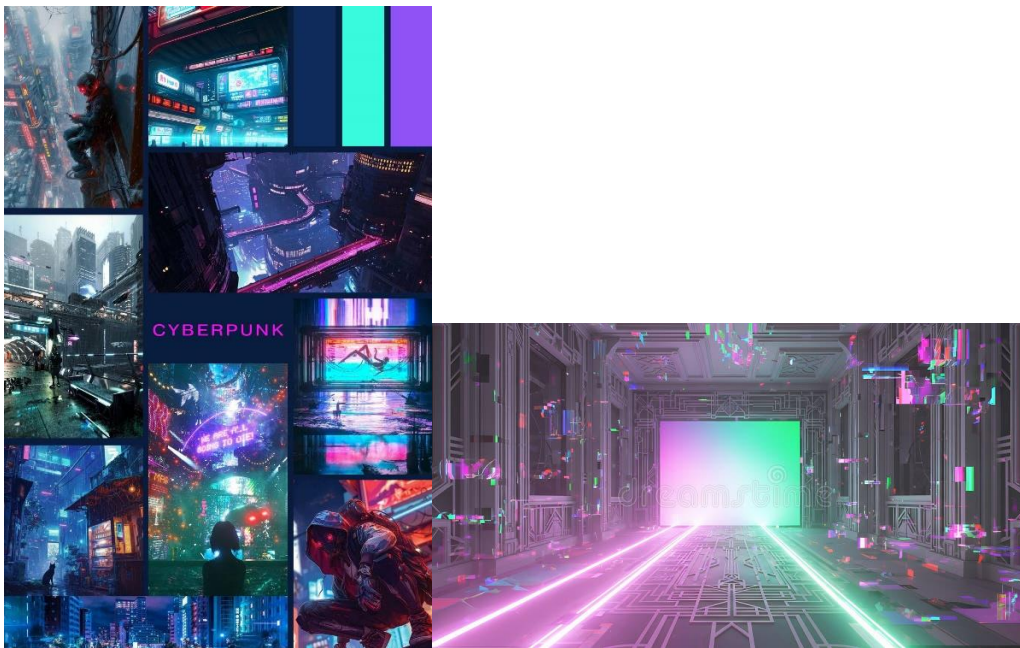
Overview:

'Protocol: IX' is a first-person VR escape room set in a fragmented, digital cyberspace inspired by cyberpunk worlds such as Cyberpunk 2077 and The Matrix. The player awakens inside this corrupted virtual world with no memory of their identity. As they glitch between disconnected zones, they discover puzzles that are tied to places of their lost consciousness.

Each successful puzzle restores part of their memory, revealing a story of a consciousness trapped during an experimental

upload process gone wrong. The ultimate objective is to reconstruct their identity and escape the simulation, returning their mind to the physical body.

This mysterious, narrative-driven journey features emotionally charged puzzle sequences, a haunting yet sleek cyber-aesthetic, and immersive VR mechanics that bring the world to life.



Key Themes:

- Fragmented identity
- Escape and rebirth
- Digital isolation
- Human/Machine morality

Locations:

- Corrupted cyberspace
- Old childhood home
- IX corps research lab

- Futuristic club
- Secret government facility

Unique Selling Points (USPs)

Mystery Narrative Structure:

Unlike traditional games where the objectives and plot are known upfront, Protocol: IX deliberately withholds information. The player enters the simulation with no knowledge of their identity and purpose. Through exploration and puzzle-solving, they gradually uncover fragmented memories and slowly piece together the truth. This encourages deeper emotional investment as the story unfolds dynamically through gameplay.

Simulation Design:

The game leans into its VR platform as part of the fiction. Players are immersed in a cyber-simulation while physically using a VR headset which blurs the line between real and virtual. This layered reality enhances the sense of disorientation and reinforces the core narrative theme.



Glitch Audio and Visual Design:

The environment is intentionally unstable. Glitching objects, flickering lights, distorted screens all contribute to the feeling that something is deeply wrong. Teleportation between rooms is accompanied by screen-wide glitch effects and mysterious ambient soundscapes that make the player feel like they don't belong. Spatial sound further enhances the immersion and allows clues and effects to feel 'alive' in the space.

Interactive VR Puzzle Mechanics:

Players will solve puzzles using intuitive hand-based interactions unique to VR. Objects can be grabbed, rotated, connected, or placed in certain sequences to fully leverage the immersive capabilities to the platform. Every object the player touches serves a purpose and puzzle solutions are designed to symbolically reflect pieces of the player's lost identity.

Two Endings with Moral Choice:

The game concludes in a pivotal moral decision. Once the player regains all their memories and is ready to escape, they discover that there are others like them trapped in the simulation. They must choose-

- Escape and return to their physical body, leaving the other behind.
- Stay and help others escape, sacrificing their own chance to be whole again.

The endings structure gives the experience emotional weight and replayability, turning the player's actions into meaningful choices.

Game Loop

Protocol: IX features a repeating cycle of exploration, puzzle-solving and narrative discovery. This loop gradually reveals the player's lost identity while bringing them closer to the truth about their existence in the digital simulation.

Core Loop:

1. Teleportation Glitch:

The player is suddenly transported into a new, fragmented part of cyberspace. Accompanied by screen wide glitch effects and an ambient audio shift.

2. Exploration Phase:

The player explores the environment, searching for clues and interactable objects. The eerie, broken nature of the space builds tension and disorientation.

3. Puzzle Interaction:

Each room contains a puzzle that must be solved. These puzzles are fragments of the player's subconscious or memories.

4. Memory Recover:

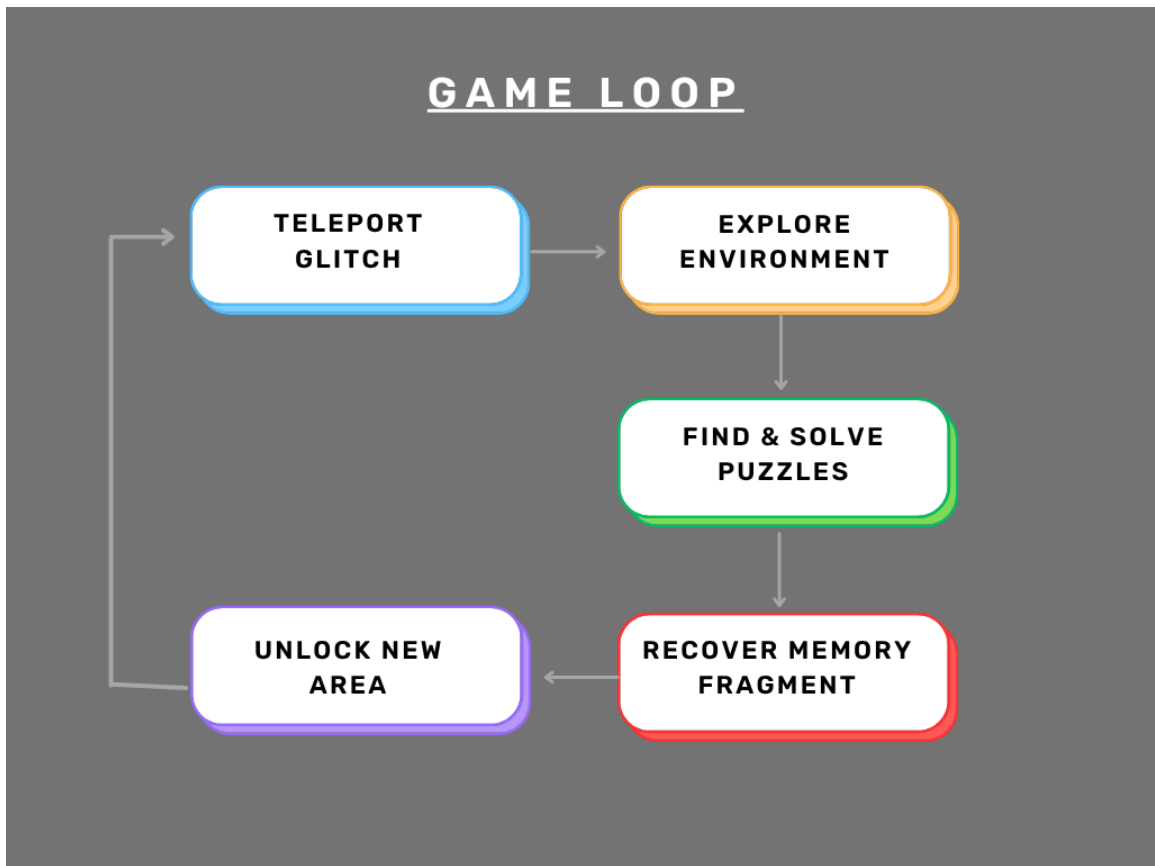
Upon solving a puzzle, the player recalls a memory fragment. These are delivered through environments and the player's inner dialogue, slowly revealing their identity and purpose

5. New Area Unlocked:

The successful puzzle solution reveals a glowing white door, inviting the player to walk through. With no other way to proceed, the player will interact with the door and trigger another glitch teleportation sequence to a new room.

6. Repeat:

This cycle continues across multiple locations, building narrative tension and preparing the player for the final choice.



Gameplay Scope

Protocol: IX is a narrative-driven VR escape room experience designed to last roughly 20 minutes. The gameplay is structured across five primary areas, each contributing to the progression of the story and the unraveling of the player's fragmented identity.

Room Breakdown:

Room 0: Introduction – The player spawns in a distorted digital lobby. No puzzles as this space sets the tone and introduces the glitch aesthetic.

Room 1 - 4: Puzzle Rooms – Each of these rooms represents a memory fragment. They contain multi-step, logic based and environmental interaction puzzles that unlock narrative pieces tied to the player's lost identity.

Final Room: The Decision – After recover all memory fragments, the player enters a final chamber where they make the ultimate choice. Escape the simulation and return to reality or remain behind to help others escape, at the cost of their own freedom.

Puzzle Design Approach:

Puzzle types are logic based and environmental interactions. The structure of each puzzle involves multiple step sequences that promote exploration and critical thinking. They are designed to immerse players in the simulation, requiring them to interact naturally with VR elements.

Estimated Duration:

- Intro Room: ~2 minutes
- Each Puzzle Room: ~5 minutes
- Final Room: ~2 minutes
- Total Estimated Playtime: ~20 minutes\

Easter Eggs & Hidden Lore:

The game will include a series of hidden easter eggs spread across all the rooms. They reveal deeper lore and do not affect gameplay progression but reward curious players with details and secrets about the digital simulation's origin.

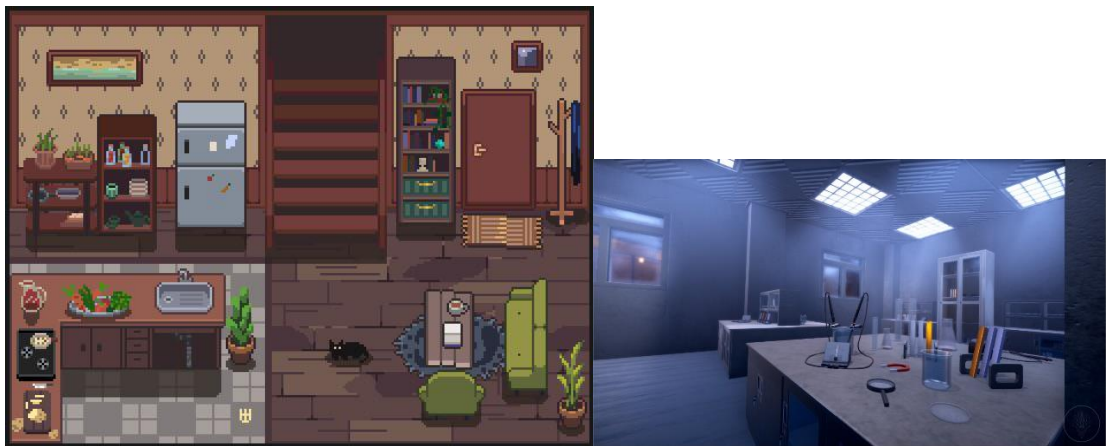
Art Style

The game maintains a consistent thematic thread through intentional visual glitches, distortion and eerie

environmental design. Each memory-based room reflects a distinct aesthetic based on the character's forgotten past.

Memory-Based Diversity:

Each of the main puzzle rooms is styled to reflect a specific recovered memory. The result is a diverse set of environments ranging from clinical, modern tech labs to warm, disorienting recreations of childhood locations. This mix of visual settings creates emotional contrast, reinforcing the idea that the player's mind is being reassembled piece by piece.



Glitch-Driven Aesthetic:

A key unifying element throughout the game is the use of visual glitch effects, which create a feeling of artificiality and digital instability. In the game, this includes:

- Flickering lights
- Screen distortion during teleportation
- Particle effects simulating data corruption
- Occasional asset inconsistencies intentionally designed in-scene

These effects are subtle but persistent, building tension and reinforcing the idea that the player is navigating an unstable simulation.

Lighting & VFX:

Lighting is used to subtly guide the player while maintaining a mysterious tone. Some areas include more natural lighting while others use shadows and limited visibility to heighten suspense. Particle effects and ambient fog are strategically placed to indicate areas of importance, build atmosphere and create constant sense of tension and mystery.



Asset Use & Modelling:

The current build primarily uses free assets from the Unity Asset Store, combined with simple, custom models for specific elements. Assets are creatively reused to support narrative cohesion despite the visual shift between memory environments.

Interface & HUD:

To maintain immersion, Protocol: IX features no on-screen UI or HUD. All information is conveyed through the environment and player interactions. The absence of UI reinforces the feeling of being trapped within the world itself, with no interface to separate reality from simulation.

Player Profile & Stories

In Protocol: IX, the player assumes the role of a nameless individual whose consciousness is trapped inside a corrupted virtual simulation. When the game begins, the player has no memory of who they are or what happened. This design invites players to experience the world through the lens of confusion and isolation, mirroring the main character's own psychological state.

As the players solve memory-linked puzzles, fragments of their identity are gradually restored, revealing a deeper narrative about:

- How they were a failed experiment
- Who IX Corps really are
- Why are they re-living their memories

The character's journey is not just about escape, but about self-reconstruction, empathy and choice. The final decision, whether to leave the simulation or remain behind, reinforces the story's emotional stakes and allows for role playing and moral introspection.

Target Audience:

- Age Group: 16+

- Ideal Player Type: Players who enjoy narrative-driven experiences, immersive storytelling and psychological sci-fi.
- Experience Level: Accessible to newcomers of VR but rewarding for experienced puzzle solvers, completionists and fans of atmospheric exploration.
- Genre Fans: Cyberpunk, sci-fi, mystery and psychological thriller enthusiasts.

Milestone Schedule

The development of Protocol: IX follows a structured timeline across several weeks. The focus has been on building a solid core environment, gradually layering puzzles, and preparing a narrative-driven VR experience.

Week	Milestone	Details
Week 7	Scene Build + Visual Style Prototyping	Created base scene and environment hierarchy in Unity. Set up XR Rig with locomotion system for VR headset. Designed intro "Spawn Room" with glitch VFX and ambient audio. Tested visual shader effects (screen glitch, flickering, particles). Began experimenting with environmental lighting for cyberpunk tone. Imported initial assets from Unity Asset Store.

<p>Week 8</p>	<p>Puzzle Planning & Narrative Implementation</p>	<p>Brainstormed and documented puzzle mechanics (cell deposit, charging, keypad, placement). Mapped puzzle-to-memory connections (each puzzle unlocks a backstory fragment). Implemented teleportation triggers with glitch transitions. Wrote first-person inner monologue script fragments for memory reveals. Began rough prototyping of Room 1's interactive elements. Created placeholder UI-free hint system using environmental cues.</p>
<p>Week 9</p>	<p>Full Room Build + Story Integration</p>	<p>Completed geometry layout and design of all main puzzle rooms. Finalized puzzle logic: item count checks, trigger zones, snapping. Built and scripted final choice scene with dual endings. Added audio cues for success, failure, transitions, and ambient storytelling. Implemented hidden easter eggs and debugged interaction logic. Created seamless navigation between rooms without loading screens.</p>
<p>Week 10+</p>	<p>Polishing & Troubleshooting</p>	<p>Optimized performance: baked lighting, removed unused assets, cleaned up scene hierarchy.</p>

		Fine-tuned teleportation and object interactions for smooth headset experience. Resolved XR rig positional bugs (camera, hands, teleport not aligning). Final playtest of entire game in actual VR headset. Captured gameplay footage, screenshots, and exported final APK.
--	--	--

Tools Used:

- Engine: Unity
- Scripts: C#
- Assets: Unity Asset Store
- Target Platform: VIVEXR
- Audio & Effects: Unity Particles, spatial audio, glitch shader effects

Project Vitals

Project Title: Protocol: IX

Game Type: VR Escape Room – Narrative and Puzzle Driven

Target Duration: 20 minutes

Core Interactions:

- Full VR support with controllers
- Grabbable/interactable puzzle objects
- Teleportation transitions between rooms with glitch visual FX

- Spatial audio for environmental immersion
- No HUD/UI

Visual Style:

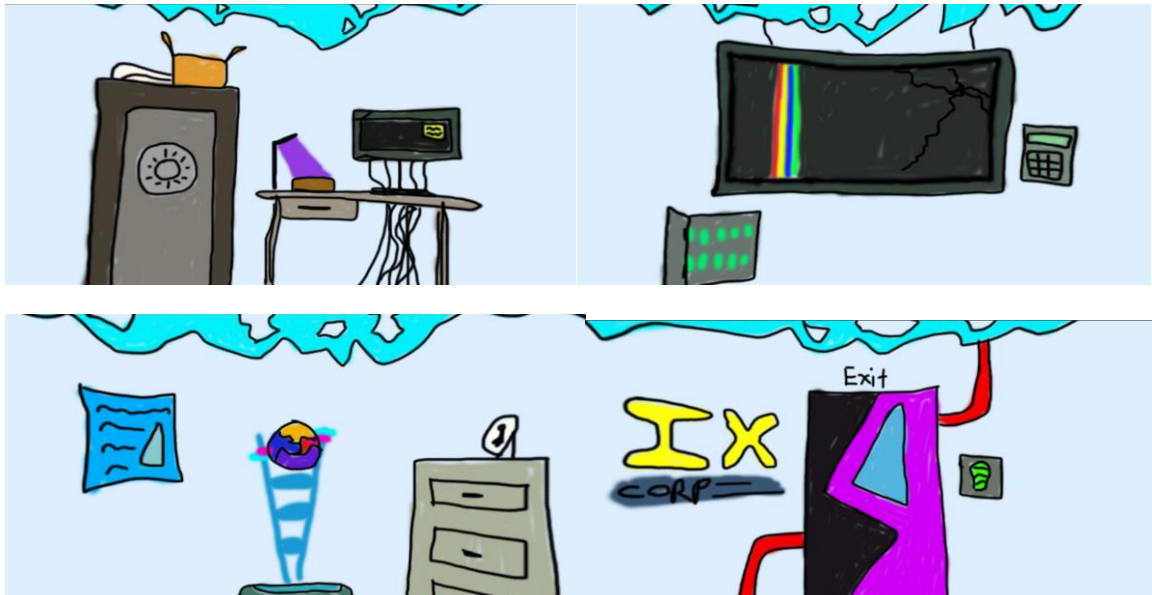
- Glitchy aesthetic with intentional VFX instability
- Rooms vary in style based on memory room
- Minimal custom 3D modelling, primarily Unity Asset Store

Content Scope:

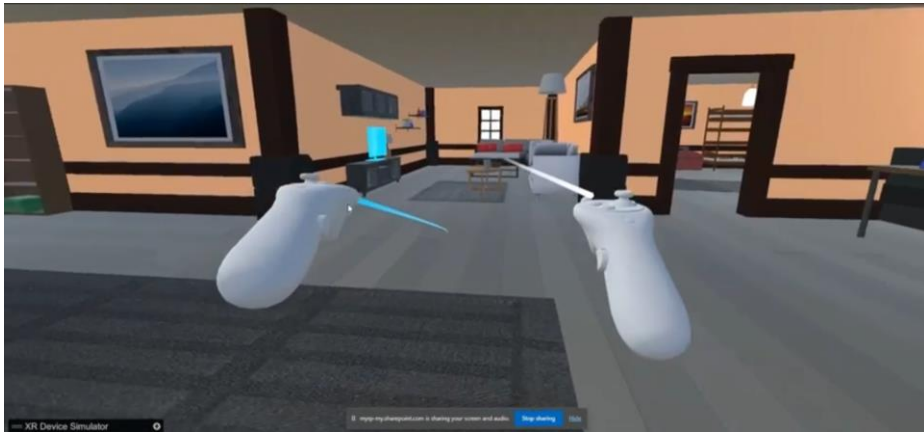
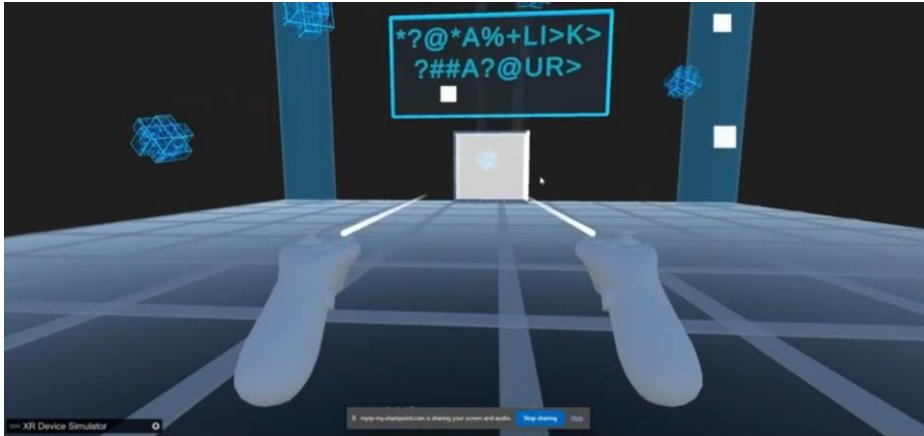
- 5 rooms total (1 intro + 4 puzzles)
- Multi-step logic/environmental puzzles
- 2 narrative endings based on player choice
- Optional hidden lore easter eggs

Prototype Screenshots:

Panorama:



Scene Build:



Story Board

C337 GA STORYBOARD

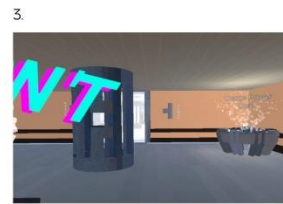
NAUFAL HILMAN 24043273



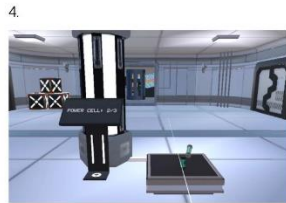
1. Spawn Room
Players spawn in a simulated cyberspace with glowing orbs, floating particles and glitchy text as an introduction to the theme of the game.



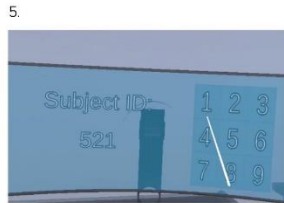
2. Memory Puzzle
Players proceed into a modern apartment where they solve the first puzzle that involves retrieving the character's corrupted memories.



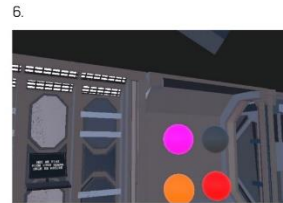
3. Hidden Room
A hidden room then exposes itself where the players are now tasked to charge and place components to deactivate the barrier and continue.



4. Power Cell
They now have to find 3 power cells and deposit them to the nearby pad. These power cells are scattered all around the room and reveals a code.



5. Keypad Code
The code revealed from the previous puzzle would let players know to input the correct sequence on the keypad, which then open a drawer with a keycard for a nearby door.



6. Color Puzzle
The final puzzle consists of players choosing the right color from 3 different sets of orbs. A nearby terminal hints at what colors are to be selected. Upon completion, the ending room shows itself.

Flow Chart

