

# the Last Iteration

TEAM 7



Baran Gürsoy  
Bilgehan Savgu  
Mahdis Sabzevarzadeh  
Julie Vondráčková

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The background features a complex arrangement of brown gears of various sizes and designs, some with intricate internal patterns. A large, faint gear mechanism is visible in the center, partially obscured by the text. The overall aesthetic is mechanical and industrial.

# OVERVIEW & STATUS

- **Alpha Goal:** Transition from "Tech Demo" to a cohesive, playtest-ready game.
- **Current Status:**
  - Feature Complete: All Layer 3 (Desirable) mechanics are implemented.
  - Some of the High Target Achieved: Physics-based Swinging mechanic (Layer 4) is fully functional.
  - Playable Loop: Start->Tutorial->rPuzzles->Ending.
  - Asset Integration: Grey-boxing replaced with custom hand-drawn art, lighting, and animations.

## Functional Minimum

- ✓ Player movement and jumping
- ✓ Player can push and pull items
- ✓ Player can pick up and put down items
- ✓ UI to show the notes
- ✓ A core layout showing how the hub and rooms connect and where puzzles occur.
- ✓ First iteration of 2D character design

## Low Target

- ✓ More concrete level design of the environment and the connected rooms
- ✓ Implementation of puzzle designs for a minimum of two rooms
- ✓ Cloning mechanism without temporal recording (only playing the clone in real-time)
- ✓ 2D character design and animation
- ✓ Environmental design with some interactive objects for two rooms

## Desirable Target

- ✓ Implementation of puzzle designs for the remaining two rooms
- ✓ Cloning mechanism with temporal recording as discussed
- ✓ Enrich interactive elements in environments
- ✓ Add music and sound effects for a better user experience
- ✓ Implementation of notes and hints about the flow of the story

## High Target

- ✓ Choice-based cutscenes reflecting player decisions
- ✓ Additional puzzle mechanics to enrich gameplay
- ✗ New rooms expanding the overall map size
- ✓ Ability for the player to swing between platforms

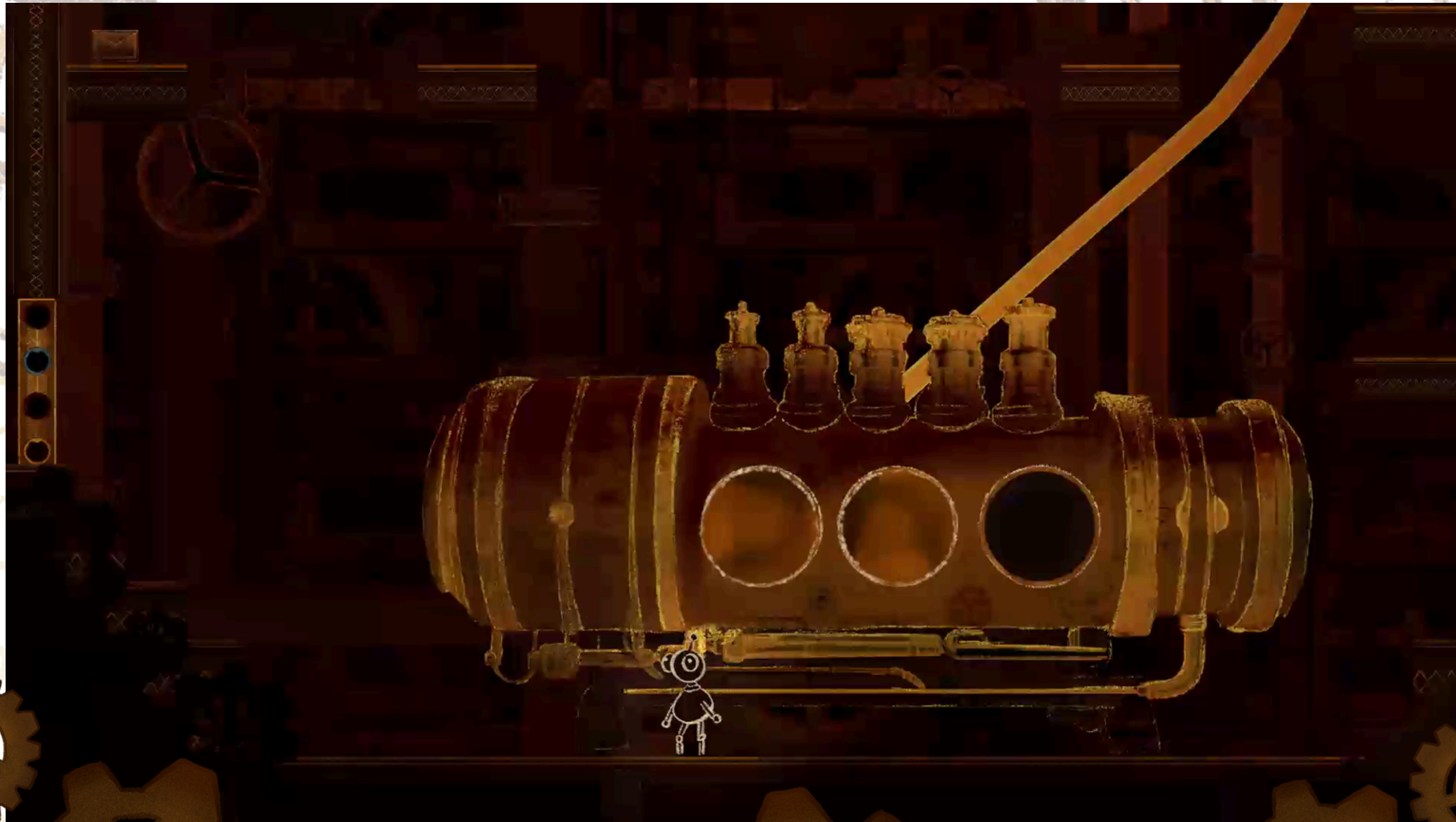
## Extras

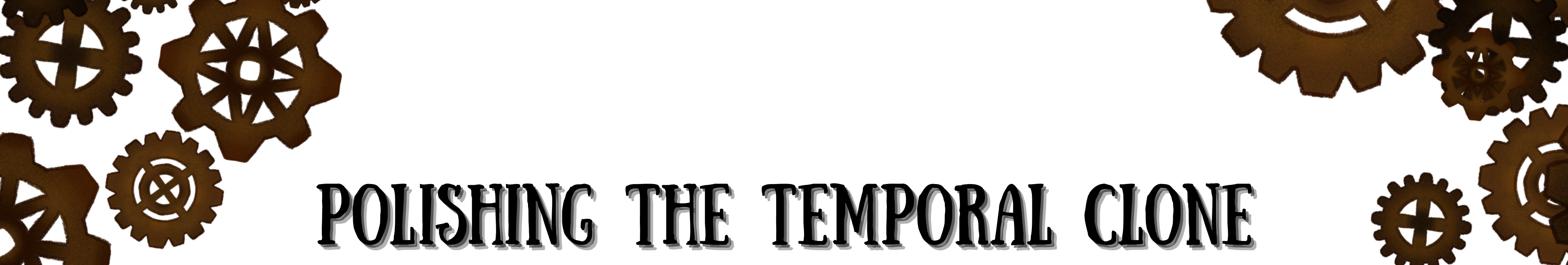
- Item crafting system
- ✗ Voice acting for both the scientist and the robot when reading notes
- ✗ Flashback cutscenes to reveal story elements instead of relying solely on notes
- ✗ Expanded map with a dedicated UI and more interconnected puzzles

# NEW MECHANIC: SWINGING

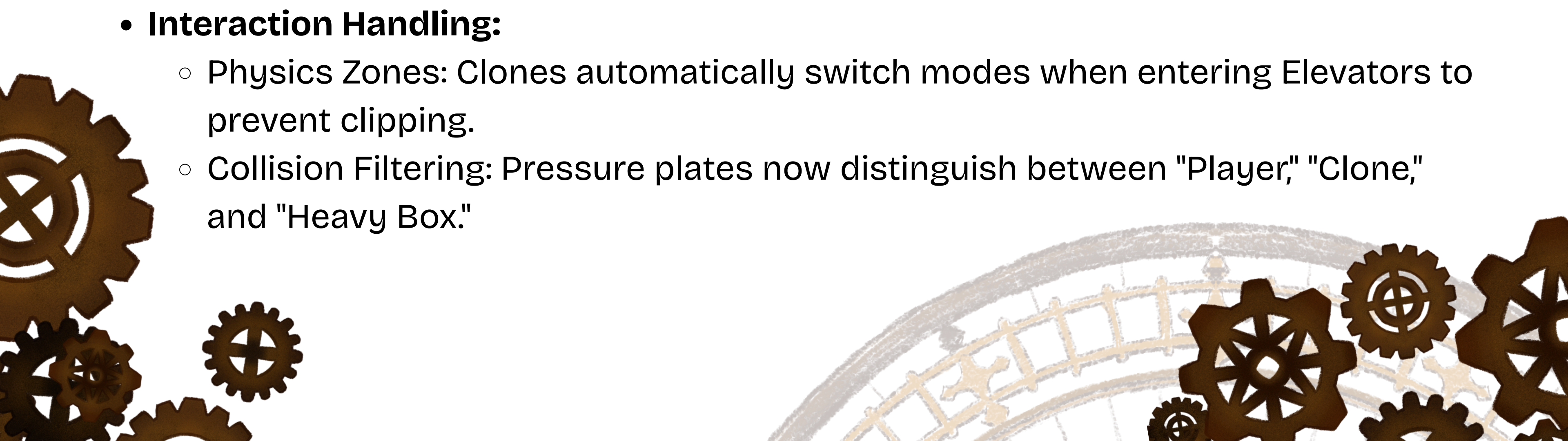


# NEW MECHANIC: THE CABLES (VERLET INTEGRATION)





# POLISHING THE TEMPORAL CLONE

- **Deterministic Replay:**
    - Drift Correction: Added a Static Precision and Physics Only mode to refine clone recording and playback.
  - **Interaction Handling:**
    - Physics Zones: Clones automatically switch modes when entering Elevators to prevent clipping.
    - Collision Filtering: Pressure plates now distinguish between "Player," "Clone," and "Heavy Box."
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# PUZZLE DESIGN: SYNCHRONIZATION

- **The Bell Puzzle:**

- Requires memorizing a melody and replaying it.
- Accessibility: Notes are color-coded (Visual + Audio cues).

- **The Button Sequence:**

- Requires split-second timing.
- Player records the first half -> Plays along with the Clone to hit the second half simultaneously.



**BUTTON PUZZLE**



**BELL PUZZLE**

# AUDIO-VISUAL ARCHITECTURE ("THE JUICE")

- **Audio (FMOD Integration):**

- Decoupled Events: Audio triggers via global AudioEventChannel.
- Procedural Audio: Moving things pitch-shift based on velocity. Bells audio magnitude depends on hit velocity. The robot speaks through procedurally generated sounds.

- **URP Lighting:**

- Global States: System interpolates between "Blackout" (Cold Blue) and "Powered" (Warm Orange).
- Atmosphere: EmissivePulse scripts bring the "Giant Clock" and machinery to life, and many more effects.

# PLAYTESTING READINESS (TUTORIALS)

- **Goal:** The game must be understandable without a developer's explanation.
  - Context-Sensitive Learning:
  - Proximity Faders: Instructions (e.g., "Press R to Clone") appear in-world only when needed.
  - Non-Intrusive: UI fades out immediately upon success.


The background features a light beige color with a large, faint, stylized gear structure on the right side. The top and bottom edges are decorated with various sizes and types of brown gears, some with intricate internal patterns.

# DESIGN EVOLUTION

- **World Structure:** Moved from isolated test scenes to a single continuous map.
- **Menu System:** Added Main Menu.
- **Tuning:**
  - Increased Cable Drag (felt too light).
  - Adjusted Jump Gravity (felt too floaty).

A large, ornate clock face with a central banner reading "DEMO TIME". The clock face is circular and features a complex, multi-layered design. The outermost ring is a light beige color with a repeating pattern of small, stylized figures or symbols. The inner rings are a darker, golden-brown color, with the innermost ring showing a grid-like pattern. The clock hands are dark and simple, with the hour hand pointing towards the top and the minute hand pointing towards the right. The overall aesthetic is that of a classic, decorative timepiece.

**DEMO TIME**

The background features a collection of brown gears of various sizes and designs, some with crosshairs in the center. A faint, light-colored ladder is visible on the left side, extending from the top towards the bottom. The overall aesthetic is mechanical and industrial.

# NEXT STEPS (PATH TO FINAL RELEASE)

- **Playtesting:** Analyze where players get stuck or confused.
- **Bug Fixing:** Resolve edge cases related to the entire gameplay loop.
- **Final Polish:** Add more visual effects, impact particles, and refine narrative text.

The background features a complex mechanical theme. At the top and bottom, there are rows of dark brown gears of various sizes and designs, some with intricate internal patterns. In the center, two large, faint, light-colored gears are visible, one on the left and one on the right, partially overlapping. The overall aesthetic is technical and industrial.

Thank you for your attention!

**QUESTIONS?**