

ZenFocus VR Project – README

Project Goal

ZenFocus VR is an immersive VR application designed to help users find balance between relaxation, focus, and physical activation. Whether you're looking to unwind after a long day, improve concentration before starting work, or engage in physical activity, ZenFocus VR offers immersive environments tailored to your needs. The goal is to help users reset, refocus, and recharge.

Tech Stack

Hardware:

- Device: Pico 4
- Operating System: Android
- Maximum Resolution: 4320 x 2160 pixels (4k)
- Refresh Rate: 90Hz
- Field of View: 105°
- Mode: Standalone
- Tracking: 6 DoF (Degrees of Freedom)

Software

- Unity Editor Version: 2022.3.47f1
- Pico SDK Version: 2.5.3

Scenes

Scene 1: Relaxation

This scene creates a calming environment with a focus on nature and meditation. The environment features a green landscape filled with trees, with a prominent Cherry Blossom Tree serving as the focal point. Players can choose between two meditation exercises lasting 10 minutes and 15 minutes. During meditation, the default day skybox transitions into a night skybox, creating a more comfortable atmosphere for the player to close their eyes and meditate. Player can also use start the 4-7-8 breathing exercise where a sphere helps guide them through it. Additionally, a 432 Hz sound frequency plays in the background, promoting mental clarity and stress relief. This sound is loudest under the Cherry Blossom Tree and adapts to the user's position.

Scene 2: Concentration

This scene tests and improves memory and reaction. Players observe a sequence of light frequencies in different colors (e.g., red, blue, green, red, red, blue) and are tasked with memorizing and replicating the correct sequence. The challenge helps enhance memory recall and cognitive abilities while maintaining a visually stimulating experience.

Scene 3: Activation

Designed to promote mobility and engagement, this scene integrates gamified elements such as floating cubes and dual lightsabers. Floating cubes approach the user, requiring them to focus and interact actively by striking them with the lightsaber with the matching color. This combination of dynamic visuals and physical movement fosters concentration, enhances coordination, and introduces an enjoyable exercise component.

The player earns a point for every successful hit and can get bonuses for successful hit-serieses. Ten hits in a row 10 extra points, 20 hits in a row 20 extra points and so on till 100. Therefore 650 points can be achieved if a player manages to destroy all 100 spawned Cubes. If the Player misses a cube, it will be destroyed in the Destroy-Cube-Area which also resets the hit-series count for the bonus. Over time, the time between cube-spawning's are reduced and the cubes get faster to increase difficulty. These mechanisms should increase the gameplay enjoyment and motivate the player to move and improve.

Scene Transitions

Scene transitions are managed through an elevator mechanism, ensuring smooth navigation while minimizing motion sickness.

Elevator Floors:

- **G:** Relaxation (Outdoor Scene)
- **-1:** Concentration (Indoor Scene)
- **-2:** Activation (Indoor Scene)

How to Run the Project

1. Ensure you have a compatible Pico 4 VR headset.
2. Download the prepared APK for the ZenFocus VR application.
3. Install the APK on your headset.
4. Launch the application on your headset.
5. Use the elevator to navigate through the scenes.