Spy Room

RVA 2025/2026 – Final Presentation

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INTRODUCTION

PROJECT CONTEXT

A mixed reality game that transforms the player's room into a maze of lasers he must dodge to reach his goal

MOTIVATION

Create a simple yet entertaining game that every new VR user should try
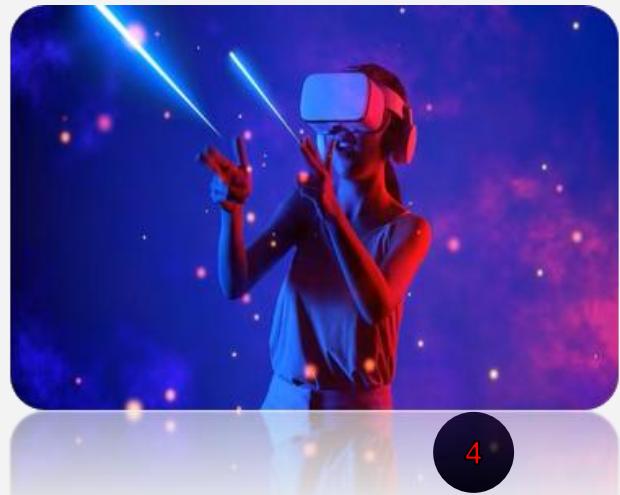
PROJECT OVERALL VISION

- A game where the player is a spy and their room is gradually filling with lasers

- Create a fun experience for new VR users using mixed reality through a game

- Expand our knowledge by developing a mixed reality game

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USER STORIES

As an athlete, I want a **game that can test my agility and my reflexes** so that **I can improve them**.

As a new VR player, I want an **experience that makes me want to seek out and play more VR games** so **I can have fun with my new equipment**.

STORYBOARDS

FUNCTIONAL REQUIREMENTS

## Room Mapping System

Scoring System

Minigames
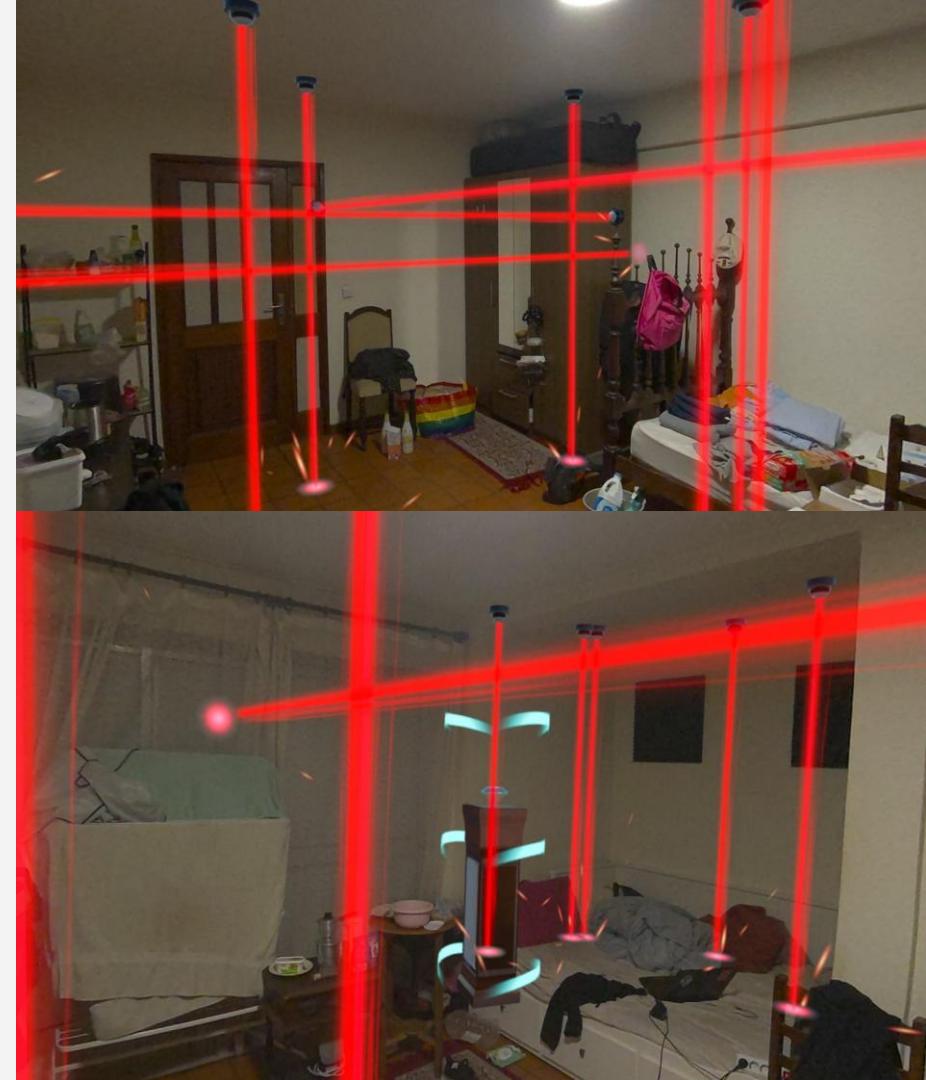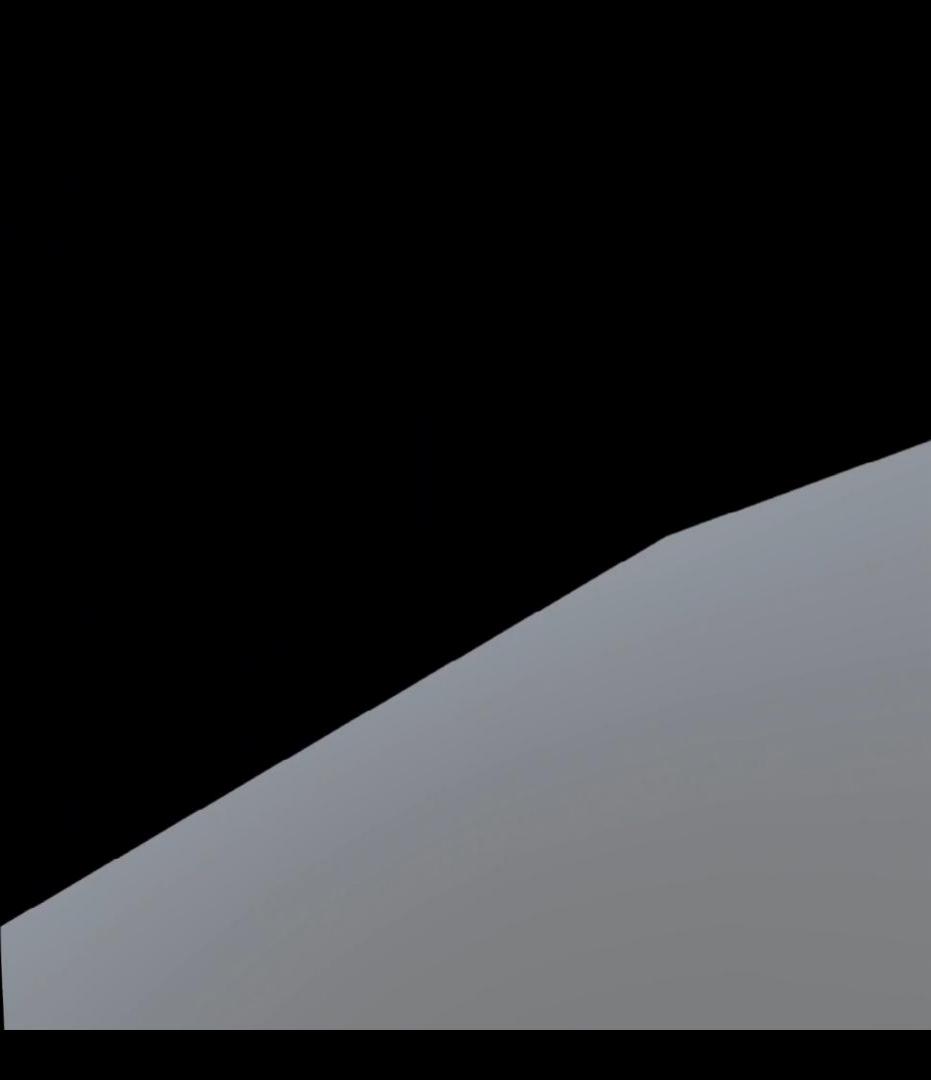
Random Distribution of Lasers

PROTOTYPE DEVELOPED

Random distribution of lasers integrated
with a Room Mapping System
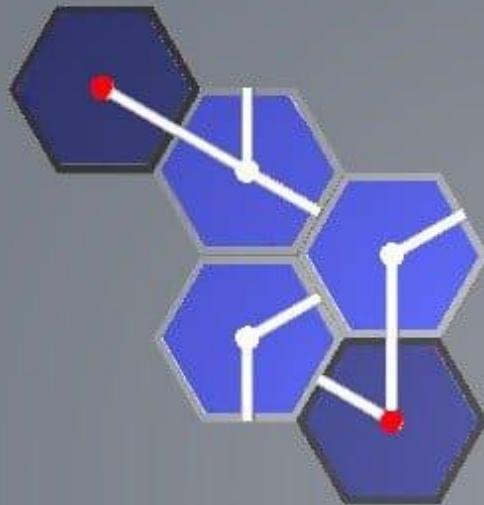
PROTOTYPE DEVELOPED

Avatar implementation

PROTOTYPE DEVELOPED

Integrated minigame to help the player
reduce the number of lasers

TOOLS USED

- **Unity**
  - → Meta Building Blocks
  - → Mixed Reality Utility Kit (MRUK)
  - → Room Mapping Feature of the Meta Quest 3s
  - → VFX Graph

- **Blender**
  - → Minigame Model

Sketchfab

DEMO VIDEO

EXPECTATION

- Functional Core Gameplay

- Endless Run System

- Avatar implementation

- Scoring System with scoreboard

- Multiple minigames

REALITY

- Functional Core Gameplay

- Endless Run System

- Avatar implementation

- Scoring System without scoreboard

- Only one minigame integrated

- No initial interface

MAIN DIFICULTIES

- Difficulties with positioning virtual objects in the real world

- Implementation of an avatar using a bone system for the hands

- Lack of Documentation(Meta)

- Lack of Community Support

FUTURE WORK

- Initial start menu and scoreboard at the end of the game

- Additional mini-games

- Beginner's tutorial and Game Over System

- Avatar with bone system in hands

- Improve game immersion

THANKS!

DO YOU HAVE ANY QUESTIONS?

Mathews Costa – 50%

Pedro Coelho – 50%