



Mystera

Wizardry & Alchemy

Collider-based Procedural
Dungeon Generator

& Immersive VR
Game Design

RST(Honors) Interactive
Software Technology

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Abstract

Mystera is a VR wizard simulator that explores how **procedural content generation** and **great game design** can enhance immersion and replayability in VR games.

The project combines spellcasting, potion brewing, and exploration within a fully VR-native design, avoiding traditional flat menus in favour of in-world systems such as gesture-based magic and a wearable magical hat used as an inventory.

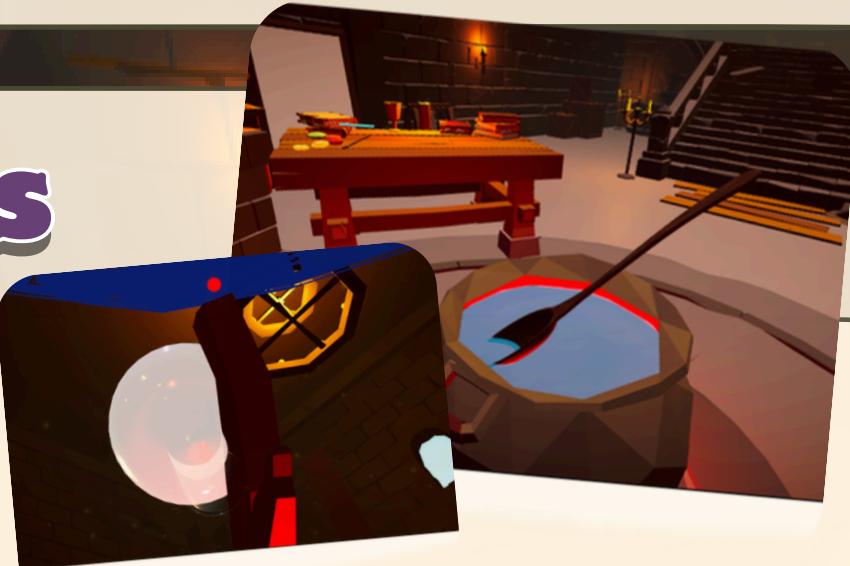


Problem Statement

Many VR games struggle with:

- Shallow mechanics, uncomfortable controls and weak replay value - lack progression and meaning.
- Replayability - handcrafted levels become predictable after a few playthroughs.

Objectives



- Create **intuitive and comfortable VR controls** for immersive wizarding.
- Design a gameplay loop & mechanics to maintain **long-term engagement** and replay
- Explore how **VR can enhance immersion** through interactive systems.

- Develop a **collision-based, connector-based dungeon generator** from modular prefabs.
- Ensure **variety** and replayability while maintaining **navigable, immersive spaces** for VR.
- Integrate **confirmed rooms** for key gameplay spaces.
- Implement an exit room system with sealed unused connectors to preserve believability.

Game Design

Potions



Spells

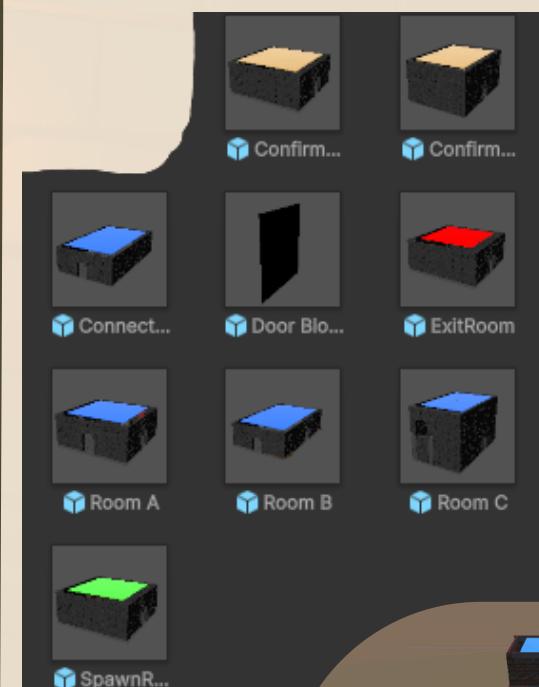


Dungeons

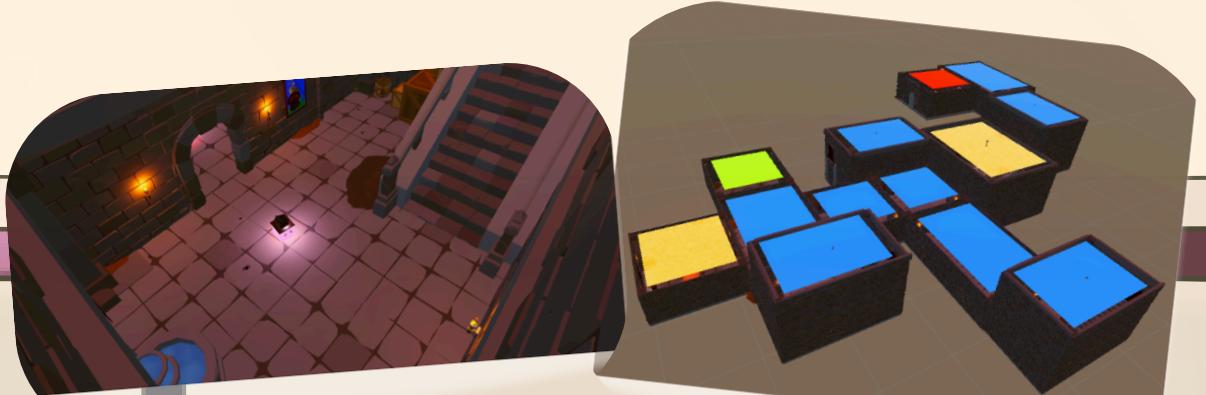
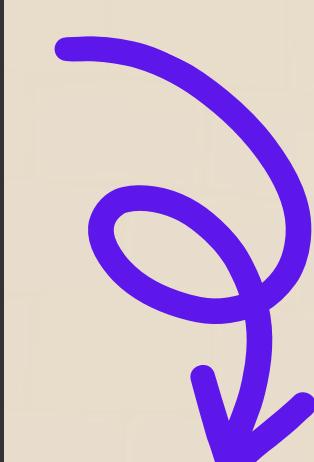


Dungeon Generator

Prefabs



Complete Dungeon



Testing Results

Player Experience (GEQ):

Survey showed high levels of enjoyment, concentration and immersion during gameplay. Most participants felt engaged and absorbed in the experience, describing it as rich and enjoyable.

Functionality & Procedural Systems:

Survey showed that the procedurally generated dungeon system worked reliably across different runs. Players were able to explore dynamically generated layouts without issue.