The Desert: A survival game of sheltering through day and night

VR Project Results, Team 9
Bakhromov Bakhtiyorjon, Jaewoong Kim, Peennanen Teemu, Seongbeom Park

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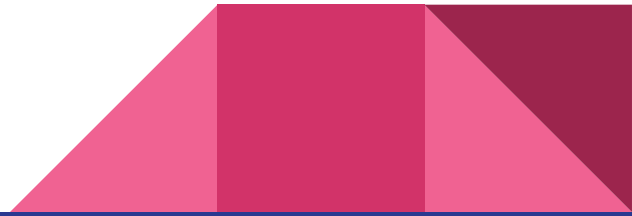


Introduction

- <The Desert> is a survival game that the player collects resources during the day to construct a shelter, and at night avoids attacks from zombies.
- Concepts of Minecraft, Journey and Lotus Focus are combined.
- At daytime player can build shelters by collecting resources around the world.
- At night, monsters appear and they attack the player and shelter.

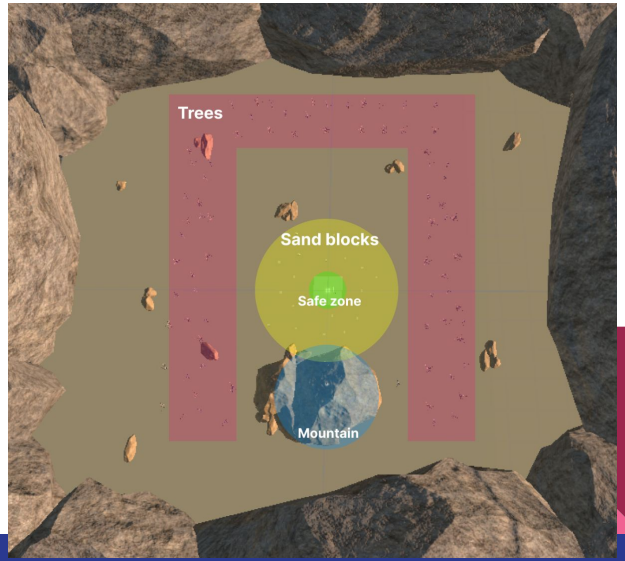
Introduction

- We borrowed the concept of gathering resources to build shelter from Minecraft.
- The game is set in a desert, and the overall mood of the game is similar to Journey and Lotus Focus the meditation game.

Demonstration

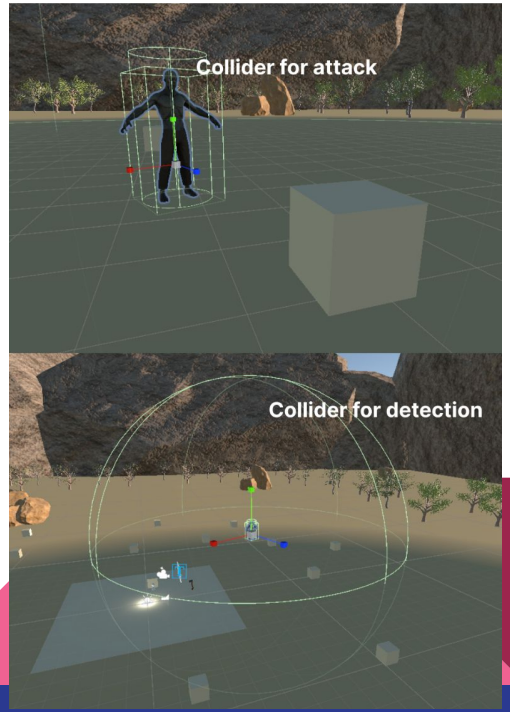
Implemented features

- During the daytime, the player can build a shelter by attaching resource blocks together.
- The farther the player goes away, the better resources they can obtain. They can use a pickaxe to mine rocks, or an axe to gather wood.
- By climbing mountain, they can get resources from the top.



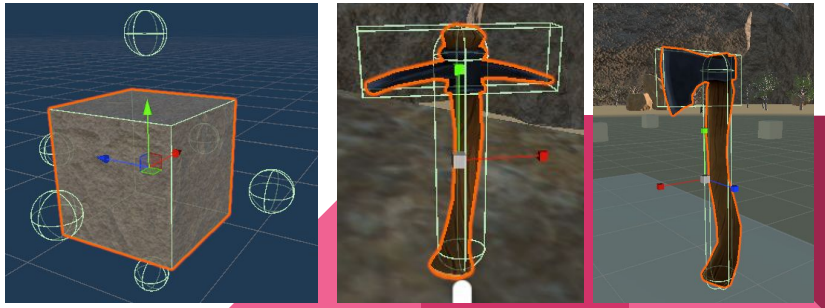
Implemented features

- At night, zombies appear around the shelter.The zombies detect the player and shelter, and try to destroy them.
  - Zombies do not spawn in the ‘Safe zone’ where the player initially spawned. The player must build a shelter in this area.
  - Zombies detect the shelter and player through colliders for detection. We implemented zombie’s pathfinding using the ‘AI Navigation’ package.
- The sun rises again, all the zombies disappear. The player must then collect more resources to reinforce the shelter.



Used XR Interaction Toolkit features

- Continuous movement and turning
- Socket Interactor:
  - Shelter construction: added socket interactors on all faces of the blocks so the blocks can be attached to each other
  - Player’s inventory
- Direct Interactor and Grab Interactable: grabbing the blocks and using tools
- Poke Interactor: interaction with GUI
- Climb Interactable: climbing a mountain

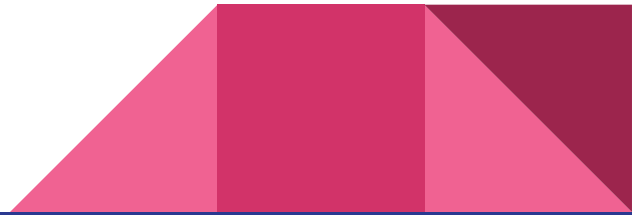


To-do features

- The inventory space needs to be expanded to store more resources.
- Due to a bug, when a player sticks blocks together, they can only add new blocks to the first block. For now, player can build shelters by placing blocks in close proximity, rather than attaching them together.
- Some of our initial plans included zombies only being able to detect the player when moving at night. Therefore, the player would have to minimize movement to endure the night. While this initial plan would make the game unique, it does not provide much of a challenge for the player. We left this initial plan as a to-do feature.

Work division

- Bakhromov Bakhtiyorjon: features for daytime, shelter construction.
- Jaewoong Kim: world design, resource gathering and zombies’ behavior.
- Peennanen Teemu: provided original idea and recorded presentation.
- Seongbeom Park: project setup, GUIs and integrating the features.



Lessons learned

- Creating a VR game was completely different from making a regular 3D game. It was very challenging to design the world while considering the user's position, view, and movements in a 6DoF environment. If we experience more diverse VR content, we will be able to create better games.
- Even with tunneling vignette applied, we experienced simulator sickness after playing the game for a long time. We realized there are many more considerations to reduce simulator sickness in VR experiences than we had thought.

Thank you