

Name of Game: The Library

Team Members:

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GitHub Link: <https://github.com/UVA-CS4730-F17/game-project-the-library>

Game Pitch:

The Library is a virtual reality escape room game for the HTC Vive that uses the basic ideas behind puzzlers while its main mechanic involves fantasy magic and element manipulation as a tool to solve the environment. Using the power of spell casting, the player must solve four mind-bending levels each with a unique puzzle and dynamic interactions.

How To Play:

In order to play, the player must have a platform that supports HTC Vive. The player uses the HTC Vive headset to view game environment; the player is stationary within the game environment and cannot move around. The two Vive hand controllers are held in the left hand and right hand and are used for spell casting. To equip a spell on a specific hand (left or right), the player must place the controller held in that hand within one of the visualized spells that surround the player in the game environment. Once the spell is equipped, the player can cast the spell in the direction that he or she points the hand controller. A laser pointer, which can assist in aiming a spell, can be toggled on and off by clicking on the hand controller's touchpad. If a player has a spell in each hand, he or she can combine them by pressing the grip button on one of the hand controllers; the combined spell is now equipped on the controller whose grip button was just pressed.

The player starts out with a single spell and is given more spells as the game progresses (note that not all spells can be combined to make a new spell). The player starts in the first level where he or she can see a riddle which gives clues about how to solve the current room's puzzle. Once a player successfully solves a level's puzzle, the next level loads. The player must solve each level's puzzle to advance and complete the game.

Amount/Type of Content Available:

There are four levels in the final build of our game which ramp up in terms of difficulty. The first level is a tutorial level which explains the controls to the player so that he or she knows how to play in subsequent levels; additionally, the second level introduces the mechanic of spell combination. Each level provides a unique environment and involves an intriguing puzzle which will make the player thoroughly examine possible interactions between the environment and each of the spells available. The riddles provide helpful hints as to how to solve the puzzles without making the solution too obvious. Both the puzzles and riddles get increasingly more complex; later puzzles involve more steps and involve a larger number of spells as compared to the earlier levels.

We have high quality assets in each level which provide limitless immersion into the world of The Library.

Playtesting Report:

We had our classmates playtest the game significantly during the allotted lab time to do so and made adjustments to our beta based off of that feedback. The majority of these playtesters were able to complete the beta level we provided but had lots of suggestion about how to improve the game. From this feedback, we decided to make our riddles clearer, add in a laser pointer to make spell casting easier, and create more content in general. Additionally, we had a TA play the game at regular intervals to ensure that the gameplay was not fundamentally deficient in any major way.

Additionally, we had several individuals not associated with CS 4730 play our mostly-complete game to provide the layman's perspective of the in-game experience. These playtesters in general got more hung up on the mechanical aspects of the game in addition to getting stumped by some of the riddles. From this form of playtesting, we learned that we needed to make our tutorial level instructions clearer, write riddles that made more sense, and to optimize the immersion.

Lessons Learned:

As a result of developing this game, we gained significant experience developing for an emerging technology platform, the HTC Vive. We learned how to parallelize game design tasks and merge different developer's contributions into the final product. We became proficient at level and puzzle design and how to use playtesting to effectively optimize all aspects of our game's design. Ultimately, we learned that game development is a challenging but rewarding process, and that we have evolved as computer scientists in the end.