SEAN COOMANSINGH

POSTMORTEM DOCUMENT (Telekinesis)

PROTOTYPING and CONTENT CREATION – Lecture

Dr. Derek Manns

JANUARY 25TH 2023

1. Title: Telekinesis
2. Description of Project- This project as founded and developed by “Team Campus 01-23” consisting of Evan Cacchione, Samuel Nwoga, Jeffrey Starlin, and myself Sean Coomansingh. The game “Telekinesis” was a project we collaborated on within the “Prototyping and Content Creation Class” whereby we had to quickly identify a concept, create a game hook that would be encouraging for players, but most importantly, have progressive updates every week until a playable demo is ready.

   The concept was determined as being puzzle-oriented with a way to use some form of ability, or interesting factor for navigating and solving the puzzles. Thus, we used a reference to the game “Portal”, whereby the player has a portal gun to not only navigate, but solve complex puzzles. Henceforth, we agreed on implementing the power of Telekinesis, whereby the player can manipulate objects and in cases even their surroundings, to traverse puzzles and make progress through the game.
3. What Went Right- The game began as a fun project that not only would be used to complete the class, build a concept that would serve as a learning experience for everyone, but be a team building exercise that facilitates collaboration and ability for everyone to learn from one another. In the beginning we were all assigned tasks that would tailor our past experiences and strong points. JJ (Jeffrey) worked on the Telekinesis ability including hit scan and HUD, Samuel was responsible for creating a laser/turret mechanic for the telekinesis ability, Evan was in charge of obstacle/mechanic for the telekinesis ability, and I was in charge of designs/mock-ups and puzzle creation.

   We worked together to complete objectives and meet deadlines, but mostly ensuring that no member was being left behind. Through my objectives, I had to create the actual designs and puzzles, which mainly highlights the core gameplay present in the

game. As a result, I did research into games that had telekinetic abilities or object manipulation like features, to develop a greater understanding of how such an ability may be implemented.

I ended up on differentiating the telekinetic ability into three mechanics: Push, Pull, Rotate/Twist. These would be introduced to the player gradually, whereby the player learns of their various applications and controls. Hence, I created three puzzles for each of the telekinetic mechanics that would encourage the player to act strategically to proceed. For the pushing mechanic set of puzzles, they involved the player pushing an object off a ledge to block up a gap that was obstructing the exit, a domino-oriented puzzle whereby they push down one obstacle to tumble into other obstacles in order to hit a button and unlock the exit, and lastly a “Simon Says” memory game whereby the player has to correctly repeat a color sequence three times to unlock three locks that would open the exit.

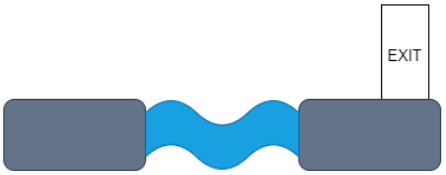
For the pulling mechanic set of puzzles, they involved the player pulling a drawbridge off a wall that would cause it to fall and make a path over a body of water, the second task would involve the player taking control of a catapult like device whereby they would need to pull an elastic band backwards, to launch a projectile into a button that would open the exit, and lastly, the player would need to defeat an AI in a game of Jenga, whereby the must carefully remove blocks from a tower and not make it fall before the AI.

The final set of puzzles included the use of the twist/rotation mechanic of the player’s telekinetic ability, whereby they must orient objects in a variety of situations to progress. The first puzzle involved orienting segments of a track in order to make a path for a ball to travel, hit a button and open the exit. The second puzzle resembled the dial on a safe, whereby the player had to rotate a dial to the correct number three

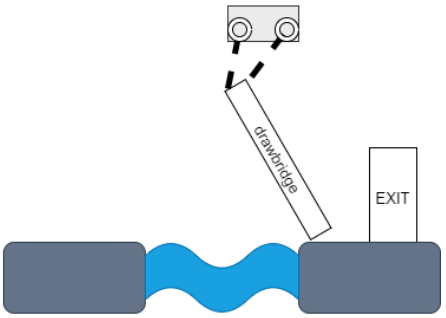
times, in order to open the lock. The final puzzle involved the player rotating a panel of tiles in a way that a legible picture would be formed, thus again opening the exit. These puzzles were all contemplated on by the entire team in order to highlight which puzzles possess the most potential, can be done in the month timespan, and most importantly, which levels would be the most fun to the player. Those were all that went right for the project and allowed for us to acquire success.

PULL TASK 1

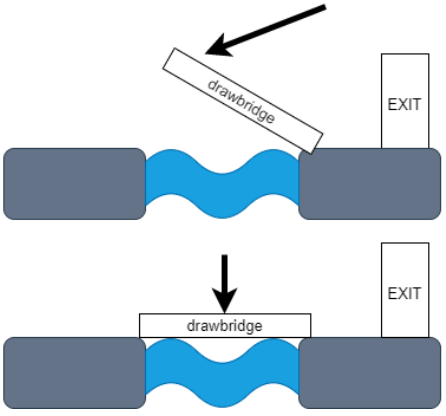
Step 1: The player is presented with a problem whereby they need to cross a body of water, however there is no path across.



Step 2: The player is directed to a drawbridge being held up by two chains on either side, that if detached would drop onto the water and create a pathway to the exit.

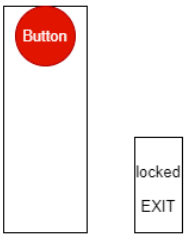


Step 3: The player the pulls the chains off the hooks, allowing the drawbridge to fall and make a path to the exit

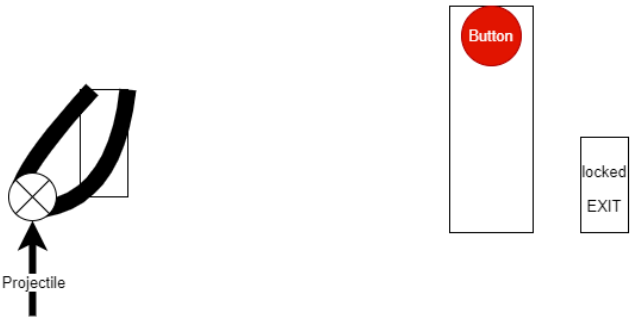


PULL TASK 2

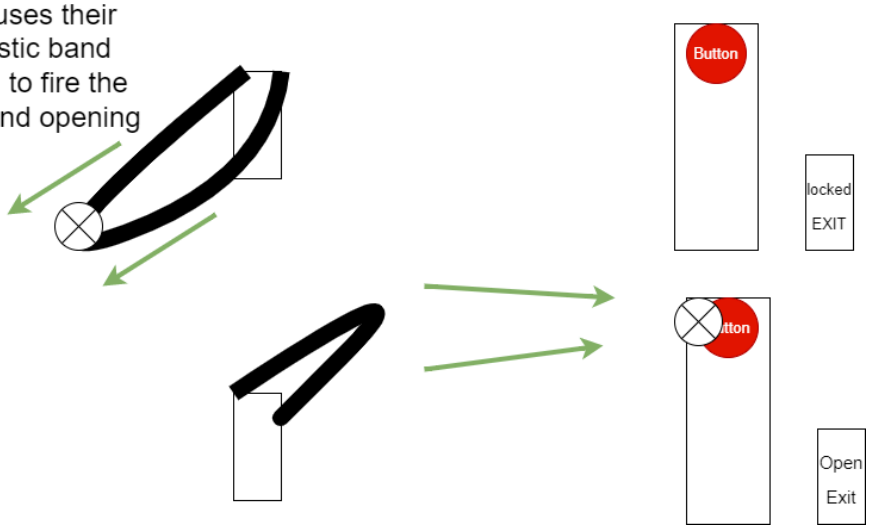
Step1: The player is faced with a problem whereby they must press a button that is not only high, but far away.



Step 2: The player is presented with a catapult like device, whereby they must pull back and release an elastic band that would launch a projectile to hit the button

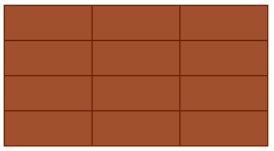


Step 3: The player then uses their pull ability to pull the elastic band backwards, and releasing to fire the projectile into the button, and opening the exit.

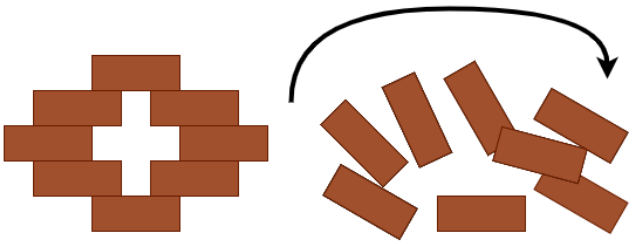


PULL TASK 3

Step 1: The player is greeted by a large construction of blocks that resemble the game Jenga. The player must play this game of Jenga against an AI, whereby whoever makes the tower fall, loses.



Step 2: Pull the blocks out carefully to not make the tower fall before your opponent

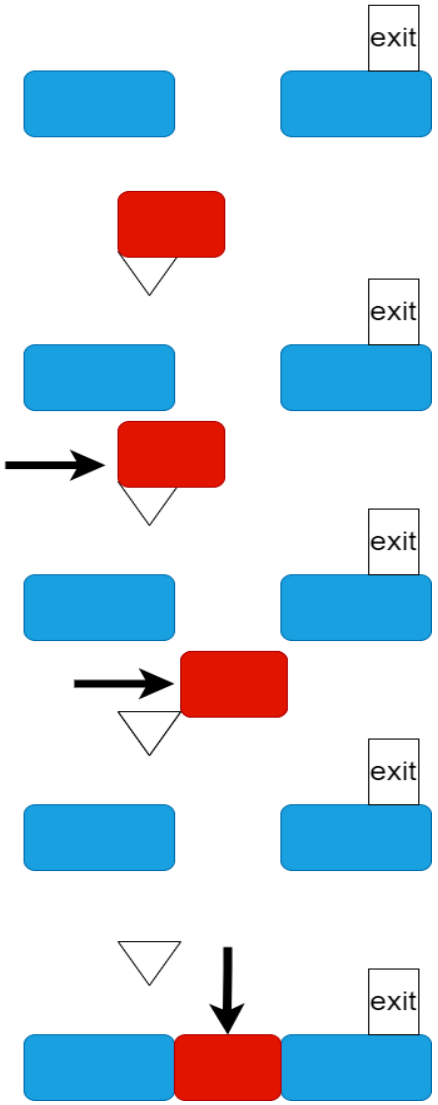


PUSH TASK 1

Step 1: Player is presented with a dilemma of a hole that restricts them from reaching their destination

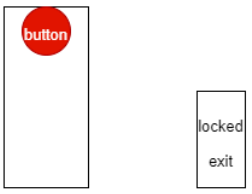
Step 2: Player is prompted to push a crate over from a platform, which would not only allow them to reach the door, but demonstrate the push ability

Step 3: Player then pushes the crate which results in it falling and perfectly sealing up the hole

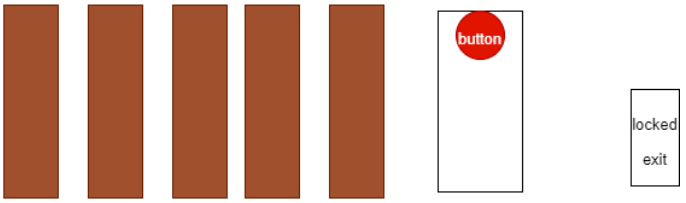


PUSH TASK 2

Step 1: Player is presented with a problem whereby they need to push a button that is high on a wall



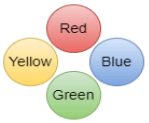
Step 2: Player is then introduced to a pillar, that once pushed will create a domino effect with other pillars that would push the button. This would teach the player butterfly/domino effects of their actions.

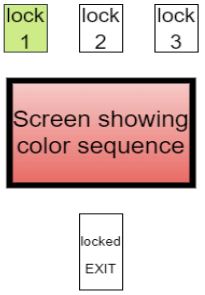


Step 3: Player pushes one pillar which causes a falling domino effect that makes the others fall, and eventually press the button and unlock the exit.

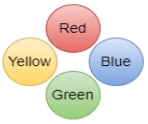
PUSH TASK 3

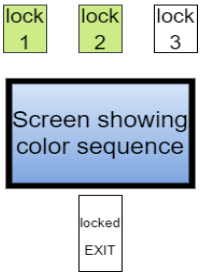
Step 1: The player is presented by a Simon Says memory game, which requires the player to remember a sequence of colors successfully three times, in order to open the exit door. They would then press buttons with respective colors according to the color sequence.



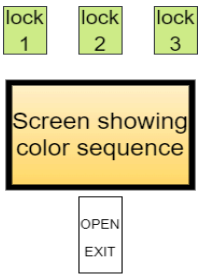


Step 2: The screen would flash a sequence of colors three times in order for the player to press the respective colors. Moreover, if the player does not select the correct sequence of colors, the locks would reset on the door, and they would have to start over.



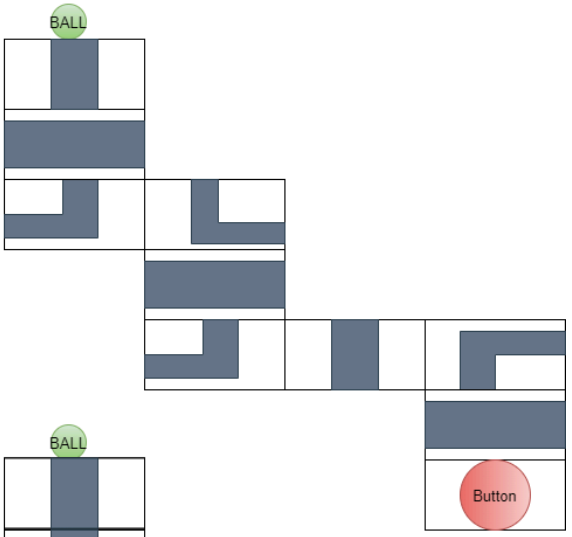


Step 3: Once the player guesses the correct sequence of colors three times consecutively, the locked exit will open.

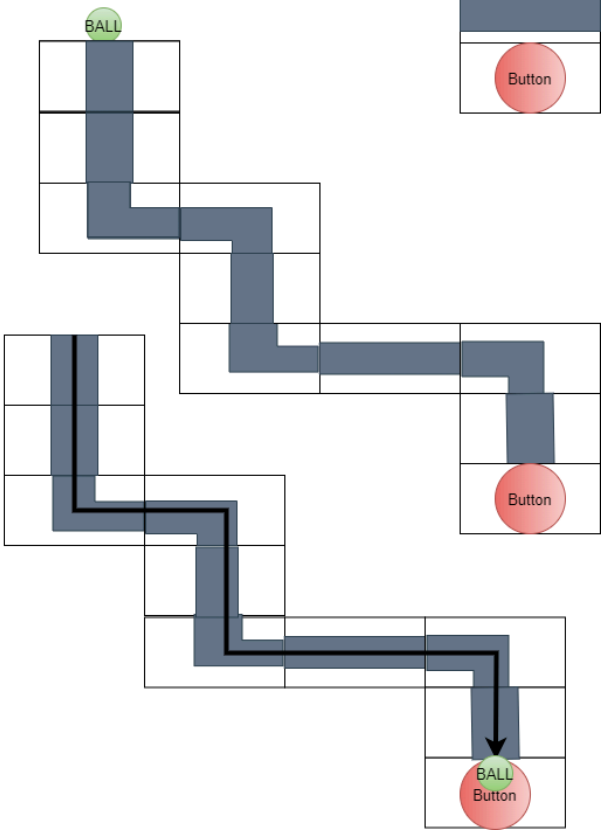


Twist/Rotate Task 1

Step 1: The player is tasked with directing a ball through a track by rotating a multitude of pipes that eventually lead to a button that opens the exit.

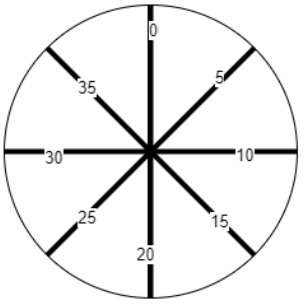


Step 2: The player orients the tracks correctly, causing the ball to reach the button, thus opening the exit.



Twist/Rotate Task 2

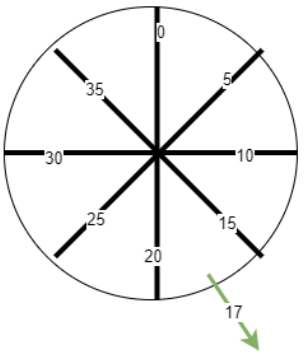
Step 1: The player is presented with a problem whereby they must utilize their twist/rotate ability to rotate a dial similar to the dial on a safe/padlock. The player must then turn that dial to a correct number 3 times, in order to unlock 3 locks that shall open the exit.



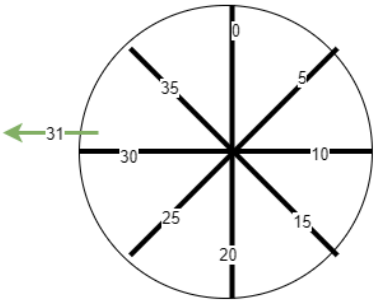
LOCK 1 LOCK 2 LOCK 3

locked exit

Step 2: The player would then slowly rotate the dial three times until they find the correct number that matches all three locks, in order to open the exit.

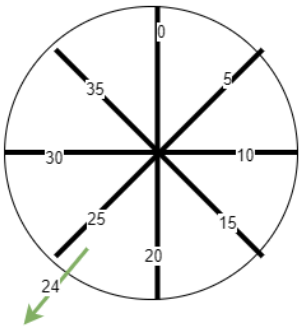


LOCK 1= 17



LOCK 2= 31

Step 3: Once all three locks are solved, the exit shall be opened.

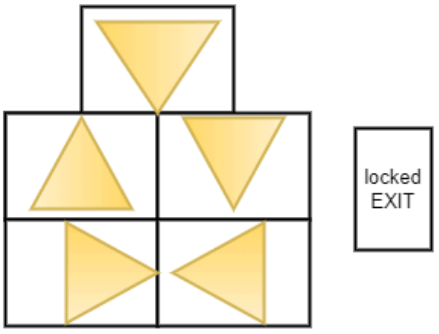


LOCK 3= 24

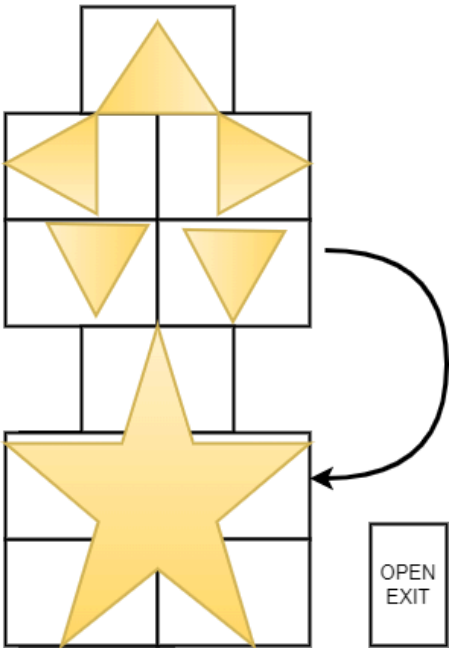
OPEN EXIT

Twist/Rotate Task 3

Step 1: This is the final task that shall be used to demonstrate the twist/rotate mechanic of your telekinetic ability. The player is shown a mixed puzzle and must rotate various puzzle pieces to solve it



Step 2: The player uses their rotation ability, solves the puzzle, then the exit is opened. This also completes the tutorial of the player's telekinetic mechanics, and later the subsequent levels shall be more difficult and can require a combination of these mechanics.



4. Challenges- The main challenge that was experienced, was quite personal whereby I felt severely underestimated by the team. This stems from the fact that the majority of students currently enrolled in the game design masters degree, have gained a foundation in the basic premises of game design, as they completed their undergraduate bachelors degree in it. Therefore, due to me completing my bachelors degree in Information Technology, I lack these basic foundations and the premises including anything with games, thus making me disadvantaged in both the knowledge and expertise of game creation. Therefore, the other team members underestimated

me due to having that inexperience. However, I told them that I am ready to take on any challenge or any task that they have for me. I showcased eagerness and wanting to take initiative to the team and guaranteed them that I am a quick learner and shall do my best to get it done.

Due to this and feeling underestimated, I researched multiple tutorials and did practice utilizing the Unreal Engine, as not only was this my first time using the Unreal Engine but knowing that this project is on a strict one-month deadline made it imperative that I learn the interface as effectively and efficiently as possible.

5. Audience- The audience of this game is mainly highlighted for players that enjoy puzzle and adventure games, with hints of strategy intertwined. Moreover, it is gauged for players who are either fans of the portal series of games and the game “Control”, however, it is not limited to that demographic. Due to the game being more casual, it can be played and understood by everyone, but most importantly, allows for everyone to acquire the same fun and enjoyable gaming experience.
6. Risks- The first risk that was brought up was by Professor Manns, whereby he let us know that in the past, 2 or 3 classes that he’s taught have pitched projects that revolve around portal and even the use of telekinesis. Thus, this risk designated the game having no unique identity, and not having enough of a grasp on a player to continue playing.

   The second risk involves ensuring the game is appropriately balanced in terms of its difficulty of puzzles for the target player audience. When the game was in its conceptualization phase, we made the decision for the target audience to be teens, and expanded to players who are fans of games such as Portal and Control. Moreover, due to the tutorials and explanations of the player’s telekinetic abilities, we can make the

game “E” for everyone, however that would further increase the risk of finding an appropriate balance between puzzle difficulty and player skill level.

The final risk involved the game having limited replay value. This encompasses the puzzles having a set order/progression, meaning that there is no variance in how you can play the game and what order you play it in, thus unfortunately meaning that once you’ve completed all of the levels, that is it. Therefore, players would not have a reason to continue playing once the levels are completed, which would unfortunately make the game not have a lasting impact on players.

7. The “Telekinesis” Rules, Amendments & Addenda

   Gameplay will rely on a variety of telekinetic abilities.

   - Pushing mechanic
   - Pulling mechanic
   - Rotating/Twisting mechanic

   The overall mood and tone will be clear and consistent.

   - Eagerness to make progress.
   - Intrigue
   - Problem Solving
   - Relief from solving puzzles.

8. What were the Goals (In the Beginning)

   When we began the conceptualization phase of this project, I first recommended a reference to the magnesis ability from the game “Legend of Zelda- Breath of the Wild”. This would be used to reference how a telekinesis like mechanic would work in a game. Then we utilized the puzzle-based rooms concept from “Portal”, and the way Telekinesis works in the game “Control”, to get our source material.

Then we planned to have the game be completed gradually over the course of 4 weeks, with each week showcasing a new part of the build. Additionally, the feedback given by Professor Manns was utilized to refine certain aspects of the game, and allow for new additions to be made, in order to see improvement.

9. Delivery Date- For this game, progress updates had to be given every Tuesday in the period of lecture, and the actual build was submitted every Sunday. Due to the goal being to complete the game in 4 weeks, the PowerPoint document, video demonstration and the actual finalized build was delivered at the end of the 4th week.
10. Genre- The genre of the game can be represented as a puzzle-oriented strategic game.
11. Category- The category that this game may fall into, is games that require you to think about the dilemma, observe your surroundings and determine the best possible conclusion . Furthermore, it may be categorized by games that are easy to pick up and learn, as well as provides an enjoyable yet linear experience.
12. Similar Titles- This game is similar to titles such as Portal for inspiration of room-based puzzles, Control for the implementation of its telekinetic abilities, and the Legend of Zelda- Breath of the Wild, solely for its use of magnesis that depict object manipulation.
13. Setting- The game would essentially be set in a futuristic/advanced lab facility, in which the player goes through an assortment of mazes with puzzles of varying difficulty, that would require the usage of one or multiple of the player's telekinetic abilities to solve.
14. Look- The look of the game can be visually similar to that of "Portal", whereby it is a rather white/neutral toned facility that is customized to depict the puzzles.
15. Plot Concept- The concept of the game that we first contemplated on would be that you awake with strange telekinetic powers that you can't quite control. You are then

brought to this experimental testing facility to solve a variety of puzzles to both gauge and become familiar with your new found powers.

16. Competitive Analysis- This game utilizes mechanics that have been attempted before in previous games that facilitate puzzles, escape mechanics, power actualization etc., and from the source material such as Portal and Control. However, it was given in feedback from Professor Manns that what sets this game apart, is the rotation/twisting mechanic of the player's telekinetic ability. Due to this, it allows for more lonely and complex puzzles to be created that can make use of the twisting/rotating mechanic, alongside the pushing and pulling mechanics, resulting in more challenge to the player.
17. Technology- This game utilizes the Unreal Engine as its foundation of game creation.
18. System Requirements- The requirements for this game would be the recommended hardware for Unreal Engine, being Windows 10 64-bit version, quad core Intel or AMD 2.5GHZ or faster, 8GB ram and DirectX 11 or 12 compatible graphics card.

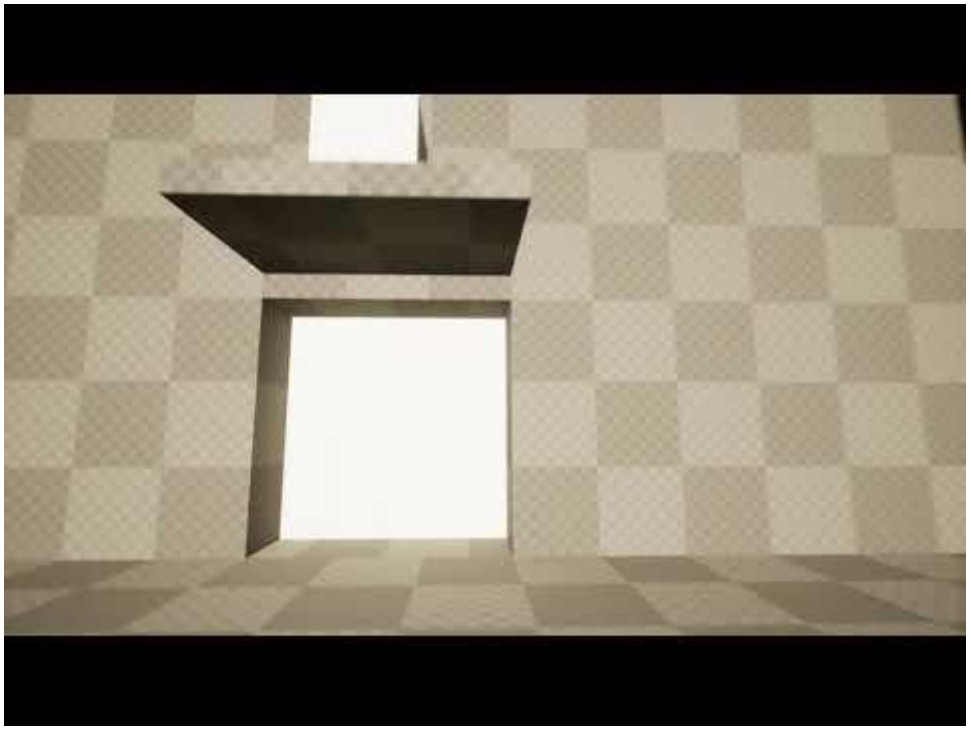
REFERENCES

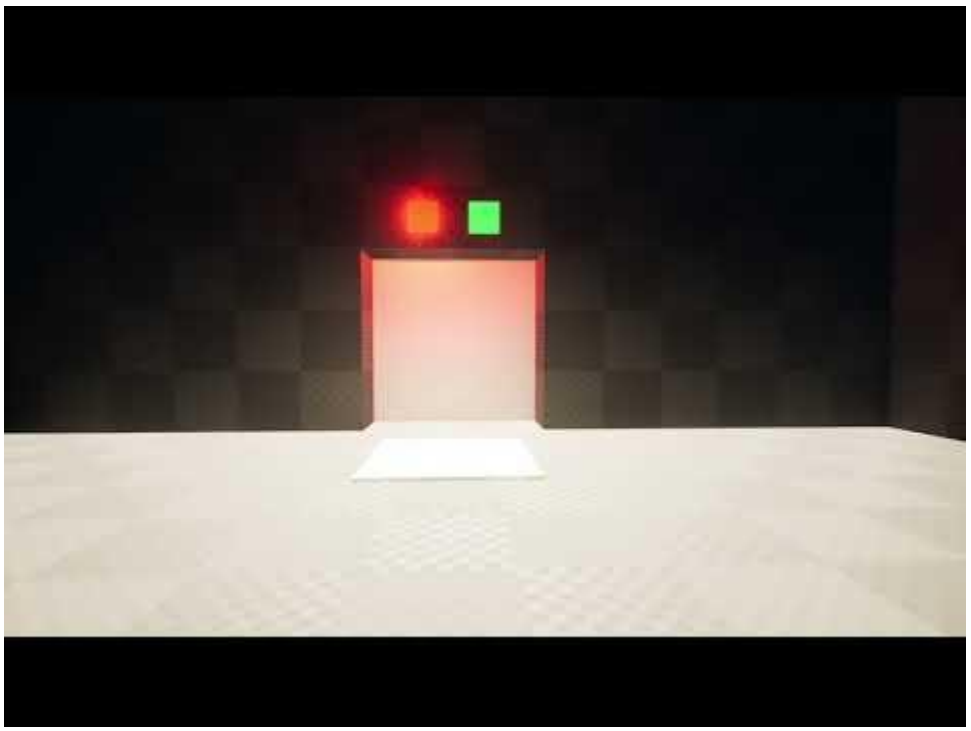
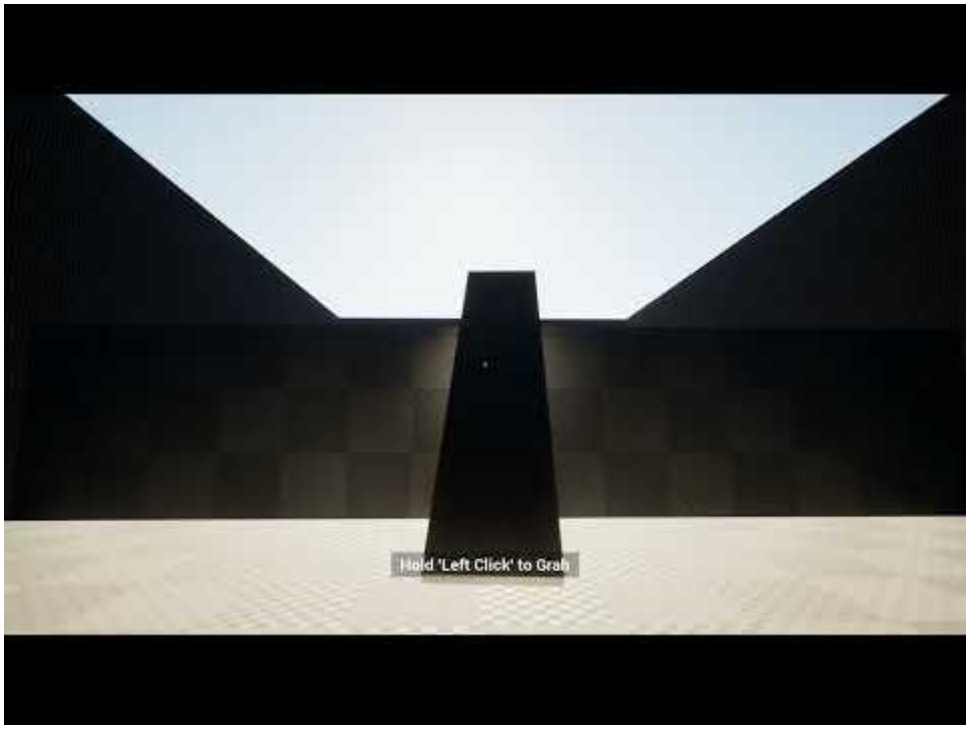
Remedy Entertainment [Developer]. *Control* [Video Game]. 505 Games.

Valve [Developer]. *Portal 2* [Video Game]. Valve.

Nintendo [Developer]. Legend of Zelda - Breath of the Wild [Video Game]. Nintendo

LINKS TO VIDEO DEMONSTRATIONS

Week 2- 

Week 3-

Week 4-