Cable Justice - Game Design Document

Change History:

**Version:** 0.1

**Modifier:** Alexander McTernan and Connor Drost

**Date:** 26/01/2023

**Description of Change:** Game Design Document started.

**Version:** 0.2

**Modifier:** Alexander McTernan

**Date:** 28/01/2023

**Description of Change:** Game Design Document first pass completed.

**Version:** 0.3

**Modifier:** Alexander McTernan

**Date:** 11/02/2023

**Description of Changes:** Game Design Document Revised after meeting this week. Inventory component removed. Player marker suggestion added. Pull mechanics added with distances in place. Adding different level descriptions. Buttons can be pushed by the player and throwable objects. Maze can only be exited once the evidence is all found. Minimap will be used. Overlook areas are being created to add points where the player can see more of the level and add to their minimap. Level 3 objective breakdown and puzzle ideas are given.

**Version:** 0.4

**Modifier:** Alexander McTernan

**Date:** 10/03/2023

**Description of Change:** Upgraded Progress on each section. Updated Throw mechanic.

**Version:** 0.5

**Modifier:** Alexander McTernan

**Date:** 12/03/2023

**Description of Change:** Upgraded Progress on each section. Updated Throw mechanic.

**Version:** 0.6

**Modifier:** Alexander McTernan

**Date:** 14/04/2023

**Description of Change:** Updated for Alpha 2 release. Added Multiplayer plans. Updated the players mechanics and how the Maze level is played and the mechanics behind it.

Game Overview:

This game is about a sitcom about a law abiding Cable TV. One day, he discovers that he is going out of business due to the rise in streaming services. Since he is a lawyer, he is determined to set things right for his career.

Inspired by the game Fez, the player will use perspective to their advantage to solve puzzles to complete each episode of this show. The player will be able to hit a key and rotate the camera to another side of the room to give a player a new vantage point. When the camera is rotated, the player's controls will rotate with it. The player will also be able to pick up, drop, and throw certain objects as well.

Puzzle elements that the player will have to overcome involve platforms that rotate when the player rotates the camera's location, this will allow the player rotate large objects to solve puzzles; maze layouts that change the format of the level when a button is pressed; and connected platforms that respond to weighted objects being placed on them.

Player (Completed Everything Required For The Maze Level):

The class will inherit from the ACharacter class.

The player character will handle input from the user and has a set of movement actions. The user's input will always change according to the camera’s position and rotation. The forward key will always send the player character in the direction away from the camera, with the other 3 directions behaving this way as well. When the key is pressed, the player will jump in the direction they are facing. The player will have less control of their motion in the air.

The player will be able to interact with buttons in-game to cause certain effects to happen in the game, such as changing the level layout. The player will be able to pick up, drop and throw certain objects like crates. Pressing the throw key will launch any object the player is holding at a charged force, away from the player. The player can only ever carry one holdable object at a time. The player will also be able to push/pull objects that are too heavy to pick up by pushing the interact key. These heavy objects will move in 0.5 meter increments to avoid problems with placement.

When the player is behind a wall, a silhouette will appear where the player is standing to show the player's position (This also applies to all interactable objects in the level). There is also a floating number above the player to indicate how far they are from the camera to help navigate the player if needed.

Camera (Completed):

This will be a custom Camera Manager Component that inherits from UActorComponent.

The main mechanic for Cable Justice is a custom camera mechanic where the position of the camera is locked to a specific view, limiting the player's vision of the level. The player will have control of the camera in a way that they can move the camera around the room to get different angles on the room which may either hide or reveal previously unknown parts of the level.

The camera being locked to certain positions will also not lock the player to 2D movement, they will still be allowed to maneuver freely throughout the level no matter the camera position.

When the camera is in motion it will slide around the room along a set path to its next position, while the camera is moving the player will be immobile until the camera is stationary again.

Rotating Platforms (Not Slated For Alpha 2 Release):

First found in level 1, the rotating platform mechanics is as it sounds, it is a platform on the ground that rotates. The trick is that it will rotate with the camera rotation. The second trick is that anything on the platform will also rotate with it. So big objects that can’t be picked up but can be pushed will have the ability to be rotated to the player's advantage throughout the level.

Platform and Pulley System (Not Slated For Alpha 2 Release):

First found in level 3, this system will consist of 2 platforms that react according to the other via a weight system. When weight is placed on one platform, it will go down, and the other connected platform will go up. To visualize this there will be a rope connecting them from up high, with a pulley above each platform that will spin when the platforms start to move.

The player and other objects like crates, boxes and weights can be used to balance out the scale. This can be used to open up new areas for the player. The range of the platforms and their movement speed will be capped to prevent unwanted actions. The scales will consist of different states depending on the different amounts of weight on them. This will prevent unwanted movement.

The Maze (Completed):

First found in level 2, this system will consist of at least 2 classes, and they are the Maze Walls, and the Button.

The Maze Walls will hold the state of which the wall is in, whether it is in the up or down state, and it will hold the movement logic as well. The Button will hold an array of Walls that it will affect. Once activated by the player, it will tell all the connected Walls to snap to their other location.

The objective of the maze will be to collect various pieces of evidence and exit each of the four sections.

Level One (Characters Home) (Not Slated For Alpha 2 Release):

Level one of the game will involve the Rotating platform mechanic as its main focus. As said above, when the platform rotates with the camera, any heavy objects that are fully placed on top of it will rotate with it. This level is based in the character's home and he has to travel from room to room to gather his items. Each room will have its own puzzle to solve with its own object that needs to be rotated. The object will be too heavy to lift, but the player will notice that each side of it is a different shape or picture and that they may be able to use it to solve different issues around the room. Using the rotating platforms, the player will learn to rotate the object to fit their needs in any given room. The camera will be able to be rotated around each room to help the player solve the puzzle. Once one room is completed, they will move onto the next without any reason to go back. There will be 2 different floors for the player to conquer. The heavy objects cannot be transported between rooms.

Level Two (The Warehouse) (Completed all but Overlook stations):

Level two of the game will involve the Maze mechanic as its main focus. The player will have 2 objectives to complete while in the maze. The first one is to find the exit to the maze, the second being the fact that they need to hunt down a certain number of pieces of evidence that can be collected in each section of the maze. Once each one is found, the player will then be able to exit the section of the maze through the door and move onto the next. Before entering the maze, the player will have a button on a stand in front of them and a wall blocking their path. Once the player hits the button, the wall will move and allow them into the maze. This teaches the player how they can change the layout of the maze to progress through it and find what they need. Later in the maze, the player will find that they can pick up and throw items at the buttons to also trigger them.

The player will need to use perspective to help navigate themselves through the maze, though there will be a few other mechanics in place to assist. At certain parts of the maze there will be Overlook stations that will allow the player to see the maze from a different perspective. The silhouette mechanic will also help the player navigate through the maze, meaning that we can see the shadow of the player, and other objects, through the walls.

Level Three (The Courtroom) (Not Slated For Alpha 2 Release):

Level three of the game will involve the Scale mechanic as its main focus. The level objectives will consist of bringing specific evidence to specific NPCs. Once one is completed, the scale in the background will tip to your favor a little bit. The witnesses will be placed in higher places or in places that cannot be reached because of a gap, and they will have to place objects on other platforms for other platforms to be brought up and open the path. These objects would be weights and boxes and such. Paths may be blocked so the player may be needed.

Level Two (Multiplayer) (Not Slated For Alpha 2 Release):

This alternate version of Level two will allow for up to four players to hop into the maze and compete for the highest amount of evidence collected. To do this we plan to remove the Door Mechanic and add many more pieces of Evidence Pickups for the players to collect. A new mechanic that will be introduced is the ability to hit your opponents with the throwable objects and it will cause knockback and possibly drop Pickups that the player was holding so that other players can collect them and get the upper hand. At the end of the time limit, whoever is holding the most Evidence Pickups will be the winner.