

CSYE 7270 ASM 1 Roll a Ball

1. A brief description of the game and feature enhancement:

In this game, a player can move the ball in 4 different directions on the playground with left, right, up and down arrow keys and make the ball jump with space key to up to 2 consecutive times. The goal of the game is to pick up all 5 yellow rotating cubes. Every time the ball picks up a yellow cube, the number of counts on the left upper corner would increment by one. The player initially has 5 lives and every time the player touches any wall or any purple cube which represents poisoned cube, the player would lose 1 life. If all 5 lives are lost, the player loses the game and can replay by hitting the restart button on the upper left corner of the screen. If the player's ball jumps out of the playground zone, the game scene would be reloaded automatically. By the way, every touch of the ball with different objects will trigger different sound effects.

2. Gameplay video Youtube URL: <https://youtu.be/wRf0z61ey8w>

3. Feature enhancements:

- 1). Jumpable Ball—The ball can jump up to 2 consecutive times, so the ball can pick up objects floating in the air within the jump range.
- 2). Out of bound reload—If the ball jumps out of the playground wall then the game scene will be reloaded so the user can restart the game.
- 3). Restart Button Addition—Add a Restart button for users to reload the scene from anytime to play again.
- 4). Life systems— Every time the ball hits the wall or purple cube(poisoned cube), one life will be lost.
- 5). Different sound effects on different events—Every time the ball picks up the yellow cube, purple cube or the wall, play different sound effects.
- 6). After the user loses or wins, the count of pickups and number of lives would not react to user's operation. The user has to click the restart button to reload the game.

4.Code citation

The structure of DeathZoneReloadController and RestartController are mostly from Youtube tutorials.

The structure of PlayerController , Rotator, CameraController basically from Youtube unity official tutorial.

Reference Link:

Death Zone:

<https://www.youtube.com/watch?v=gS72-aTmixw>

How to Jump:

<https://www.youtube.com/watch?v=xvLMD2qWaKk>

Restart the scene when on the death zone

<https://www.youtube.com/watch?v=zRpogkoE9A8&t=3s>

Other codes are so basic that it's mostly inspired from Unity documentation.

5. Licensing

The audio that is played in the game is from Youtube. All of them are marked with free to use.

Other materials are from Unity native assets.