

MP2 Design Document

In part 1, I imported the Unreal Learning Kit and use it as the arena for my game.

Health System: The max health is 100 and game is ended when health reaches 0. The health bar is displayed at the bottom left. There are health packs (red shard) scattered around the arena that adds 40 to the health when picked up.

Collectible Items: There are collectible items where I use the coin mesh provided by the learning kit. When the player collide with the item, there will be a sound and the score on the top left will be added.

Pursuer Enemy: The BP_Pursuer will be in Roam state at the beginning, where it will obtain a random point within 500 radius and walk over. Once the pawn sensing detect the player, it will walk towards player. Since player travel faster than the pursuer, player could shake it off, and the enemy will resume roaming. When overlapping with the player, the enemy will deal damage and give a knockback effect, pause for a second, then continue with following the player. It has a small box on top of its head and will destroy the actor upon contact. Destroying the enemy also add one point to the score.

Part 2:

Mortar Enemy: An enemy with static mesh from a character pack, which makes it looks like a human. It will shoot a huge ball travelling slowly and affected by gravity with a random angle between 20 to 70 degrees. It will always aim at the player in all three dimensions and shoot projectile every three seconds. The projectile will explode when it contacts the ground, and it will cause 40 damage when in contact with player. It also has a box on the top of its head that will destroy itself upon contact and add 1 point to score.

Custom Enemy: Also using a static mesh from character pack, the enemy aims at the player in x and y dimension and shoot a fast moving projectile (not affected by gravity) that reduce the player's speed by 50% upon contact. The effect goes away in 3 seconds and can be multiplied, i.e. taking two projectiles makes the walking speed 25% of the original speed. Also has a box that destroy enemy upon contact and add 1 point.

Game Mechanism: Game will be over if player exit the boundary of the floating island, showing a button to restart the level. Player can fly up, where the pursuer have a harder time sensing the player and the custom enemy cannot shoot up in z axis. The game has 13 possible points from destroying all enemy and collecting all the coins. Upon getting 13 points, the game will end, showing that you win, and a button to restart.