

Mechanic to Replicate: **Bomb rune** from The Legend of Zelda: Breath of the Wild



Core Mechanics:

- Select between square and sphere bomb with gui
- Time slows when gui is open
- Button press summons bomb above head
- Can throw bomb or place it on the ground
- Square bomb and sphere bomb only difference is their geometry and can have both bombs active at the same time
- Button press detonates one bomb shape when the related bomb shape is selected
- Only one of each type of bomb at a time
- Bomb cooldown timer after detonation
- Detonation causes circular blast radius
- Bomb explosion causes other bombs to explode if in range
- Bomb explosion causes damage and knockback
- Can dismiss bomb if summon key is pressed while player is holding the bomb

Implementation Steps:

- 1) **Create Player and Bomb Models as well as an environment for them to stand on.**
Make the environment have some sloped surfaces so that the sphere bomb rune can be

shown to roll around. Player model does not need to be perfect, but needs to be clear which way they are facing and arm models.

- 2) **Implement player movement and third person camera.** Player movement should be controlled with wasd and the camera moved independently with the mouse. Camera can move 360 degrees around the player and does not phase through objects (comes closer if object is in the way). Maybe include a button to reset the camera position to face the direction the player is facing.
- 3) **Create bomb rune GUI.** While a button is being held, time stops and the menu appears that allows the player to change what bomb is active. The menu should be navigated with keyboard input (left and right with A and D). The menu goes away once the button is released.
- 4) **Allow the player to summon a bomb on button press.** This should be done only for the active bomb type.
- 5) **Allow the player to explode the bomb with a button press.** This should be done only for the active bomb type.
- 6) **Add bomb special effects.** Create a blue explosion particle system with a distinct sphere outline representing the blast radius. The bomb should also have effects when it is summoned and dismissed. The bomb should have a trail following it when it moves. The bomb needs to have a blue glow.
- 7) **Allow the player to pick up bombs.** This should have a short animation of the player lifting the bomb. This probably should only include lifting of the player's arms. Maybe allow the player to pick up other small objects? (Crates)
- 8) **Allow the player to dismiss held bombs.** If a button (B in the original game) is pressed while a bomb is in the player's arms, then the bomb goes away with no explosion or cooldown.
- 9) **Allow the player to throw bombs.** Players can throw bombs in an arc when it is being held. Make sure the explosion radius of the bomb is smaller than the distance the bomb is thrown.
- 10) **Create bomb summon cool down.** Cool down only happens when the type of bomb is detonated. This should last 3-5 seconds. A gui element appears and makes a circle timer that represents when the bomb can be summoned again. There is a separate cool down for each type of bomb.

- 11) **Create bomb effects.** The bomb's explosion should cause all objects in the area to be blown back from the center of the explosion. This includes the player or any other moveable objects.
- 12) **Make bombs detonate each other.** If a bomb of one type is caught in the explosion of another type, it also explodes.
- 13) **Create destructible objects.** Create a crate object that can be destroyed by the bomb. Create another object that is blown back by the bomb. Maybe create an explosive object that makes a large explosion when it is hit by the bomb rune.