“SkeletonContainer”

Unity Compatibility

- Unity Version Tested: 6000.2.3
- Recommended Rendering: 2D URP
- Physics System: Unity 2D Rigidbody + Collider

Overview

The SkeletonContainer prefab is a reusable enemy unit designed for cave and dungeon environments. This enemy detects the player, approaches them until a specified range, and then attacks by throwing bone projectiles. The skeleton uses a cooldown system to avoid projectile spam and deals damage on hit. This prefab creates ranged combat pressure and encourages dynamic player move

How to Use

1. Drag the SkeletonContainer.prefab into any scene.
2. In the Inspector, assign the projectile and spawn reference:
    - Bone -> (Bone projectile prefab or GameObject)
    - LeftHand -> (Empty Transform where the projectile spawns)
3. Adjust the skeleton’s behavior through Inspector settings:
    - moveSpeed
    - stopRange
    - throwRange
    - throwCooldown
    - maxHealth

Inspector Variables

Variable	Description
moveSpeed	Skeleton walking speed
stopRange	Minimum distance before the skeleton stops walking
throwRange	Max distance at which the skeleton throws bones

Variable	Description
throwCooldown	Delay between projectile attacks
maxHealth	Skeleton HP value

Required Components

To work as intended, the prefab requires the following components:

- Rigidbody2D (set to Dynamic, rotation frozen on Z axis)
- BoxCollider2D
- Animator (with animation states below)
- skeletonEnemy.cs (AI logic)
- BoneAttack.cs (projectile behavior)

Animator Requirements

The Animator should contain these states:

- Idle
- Walk
- Attack

Suggested parameters:

- speed (float)
- attack (bool or trigger)
- Optional: isDead, hurt

Scripts

skeletonEnemy.cs

Handles:

- Player detection and distance checks
- AI movement
- Attack state transitions

- Projectile spawn
- Cooldown timers
- Health/damage logic

BoneAttack.cs

Handles:

- Projectile movement
- Collision detection
- Player damage
- Destroy on hit or timeout

Known Issues / Edge Cases

- Skeleton may clip through walls if Rigidbody2D is set to Kinematic instead of Dynamic.
- Projectile may hit skeleton if spawn offset is located inside the body collider.
- Throw animation delays may cause projectile to appear early or late.
- Pathfinding can fail if the enemy is spawned inside a tilemap collider.

Integration Tips

- Place prefab on walkable tilemap surface or ground collider.
- Make sure enemy physics layer collides with Player and Walls.
- Ensure Player layer is not set as trigger.
- Projectile collision matrix:

Demo:

https://drive.google.com/file/d/1Oo-dGTUPZ0wC5QWD9IKNELswZgwqfAzm/view?usp=sharing