

PROJECT DESCRIPTION

WebGL URL: <https://vinisha231.github.io/Project4/docs3/>

Coin Collector 3D is a beginner-level Unity 3D game in which the player navigates a ground, collects all the spinning coins scattered around, and displays a victory screen once every coin has been gathered.

Controls

- W / A / S / D: Move forward, left, backward, and right
- Space: Jump

Player Behavior

- RigidBody Movement: The player GameObject has a Rigidbody component. In FixedUpdate, horizontal and vertical inputs drive the Rigidbody's velocity, allowing smooth physics-based movement.
- Jumping: On pressing Space (and while grounded), an impulse force is applied upward. Ground checks prevent mid-air jumping.
- Trigger Detection: When the player enters the Collider-Trigger of a coin, the coin is deactivated.

Coin (Collectible) Behavior

- Spinning Animation: Each coin prefab has a CoinSpin.cs script that rotates it on its Y-axis at 100° per second, making it visually distinct and inviting.
- Trigger Collider: Coins use a Collider component set as "Is Trigger." This ensures they don't physically block the player, but can detect overlaps.

Game Management & UI

- GameManager Singleton: Tracks total coins and references to UI elements (winPanel).
- Win Panel: Initially inactive, the winPanel GameObject becomes active when score \geq totalCoins, displaying a "You Win!" message and pausing further input.

Project Duration: Approximately 2 hours from initial scene setup to a polished WebGL-ready build.

Challenges

1. TextMeshPro Import Issues: Encountered a NullReferenceException when importing TMP essentials. Resolved by reinstalling via Package Manager and reimporting resources.