Footstep Manager System Documentation

Overview

The FootstepManager system is a comprehensive and responsive solution for dynamic footstep audio in your game. It adapts sounds to the player's movement speed and the type of ground they are traversing, offering an immersive and professional audio experience.

This package includes a pre-configured Footsteps on Various Materials Sound Effects Audio Package with layers set up for each audio type, allowing for quick integration into your project. View the included audio package here.

Features

Ground-Type Detection: Dynamically adjusts footstep sounds based on the surface the player is walking on, using a raycast system.

Speed-Adaptive Timing: Matches footstep timing to the player's walking or running speed for natural audio behavior.

Audio Variety: Randomizes footstep playback from pre-defined sound sets for each ground type.

Pre-Configured Audio Package: Includes the Footsteps on Various Materials audio pack with layered configurations for easy setup.

Automatic Setup: Ensures an AudioSource is present on the player for seamless functionality.

Included with the System

Full FootstepManager System: Handles sound playback, timing, and ground detection.

Pre-Configured Layers: All required layers for ground types are set up, mapped to the included audio package.

Audio Package: Foley-based sound effects covering various ground materials like wood, stone, grass, and more.

How It Works

Ground Detection:

The system uses raycasting to identify the ground layer beneath the player and selects the corresponding audio clips.

Footstep Playback:

Sounds are played only when the player is moving and grounded. Timing adjusts dynamically based on walking or running speed.

Randomized Clips:

For each ground type, a random clip is chosen from its associated sound set to enhance realism.

Setup Instructions

Integrate the System:

Attach the FootstepManager system to your player GameObject.

Ensure your player movement system exposes isMoving, isGrounded, walkSpeed, and runSpeed.

Use the Pre-Configured Audio Package:

All layers for ground types are pre-configured. Simply import the included audio package, and the system will automatically use the corresponding sounds.

Adjust Footstep Timing:

Modify baseFootstepDelay for custom timing between footsteps.

Test in the Demo Scene:

A demo scene is included to test the footstep system with minimal setup.

Integration Requirements

Player movement must provide:

isMoving – Boolean for movement state.

isGrounded – Boolean for grounded state.

walkSpeed and runSpeed – Floats for movement speed.

Ground layers must be assigned in your project settings.

This system, combined with the included professional-grade audio package, provides an intuitive and versatile solution for implementing footstep audio in your game. Whether you're creating a first-person exploration game, a stealth mission, or a fast-paced runner, the FootstepManager system adapts to your needs effortlessly.