# 2D Character Animation Pack

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#### 1. Overview

This package contains 54 animations suited for a 2D sidescroller/platformer game. The animations are high-quality, traditional hand-drawn assets that are sure to help you start prototyping your project right away.

A playable Demo using all the animations is included to show how they all work and blend into each other. This scene can be easily tweaked in the editor to adjust settings like run speed, jump height, rate of fire, etc.

The demo does not use any Unity package dependencies to maintain compatibility with older versions.

Most requested animations will be added to create a massive library of animations containing everything you may need for a 2D platformer.

# 2. Scenes

- 2D animations Showcase
  - This scene holds all the current animations and upon playing the scene will play them all simultaneously
- Prototype Demo

This scene holds a playable demo using all the animations.

SETUP instructions in README pdf.

# 3. Demo

#### 3.1 Input

The Input in the demo currently doesn't use the new Unity input system. Keyboard/mouse and controller inputs are supported, interchangeably even at runtime. Controller support uses Xinput bindings so they match up with an Xbox controller layout. If your controller bindings are different I

recommend using something like DS4 to map to Xbox controller layout. You can change bindings in the InputManager script.

Deadzone control is included in the Player object in the inspector. Joystick input uses proper radial zone control except for vertical input so as not to mess with the vertical attack.

#### 3.2 Camera

The Demo uses an orthographic camera which includes smoothing controls for both X and Y axes in the inspector of the Main Camera object. There is also a multiplier for smoothing on the dash action. Camera offsets from the player position can also be found here.

#### 3.3 Parallax

The environment assets have a parallax script assigned to them which simulates depth. Elements that also repeat should use the BackgroundRepeating script which has its own parallax slider in it. Values closer to 0 move with the player and values closer to 1 stay in place.

## 3.4 Spawn Point

There is an object called Spawn Point which can be moved around the scene and will be where the player will spawn upon hitting the Play button, this spawn point is overridden by the last checkpoint activated while playing. The player's spawn position will return to being the SpawnPoint when back in editor mode.

## 3.5 Player Controller

The Player gameobject contains a PlayerController Script which has many options to quickly change the feel of the controls to your liking. Each option has a descriptive name. These options give you control over enabling or disabling abilities (events and tutorials in the demo will switch these), player gravity, run speed, ability cooldowns, fire rate, etc.

# 3.6 Player Health

Damage dealt to the player is controlled in ProjectileEnemy scripts assigned to enemy bullets.

# 3.7 Projectiles

Projectile speed and damage can be found in the projectile's prefabs.

## **3.8 Aiming in 360**

The laser sight for this aiming method is controlled by the LaserSight script and the animation is controlled using a blend tree that maps to each aiming input direction's coordinates.

#### 4. Optimization Notes

The code used in the demo scene is used for showcasing the animations running smoothly together in a playable fashion so the code is not optimized. All character assets are set up using their default 2048x2048 size, you code lower these resolutions in the sprite settings, or change how they are compressed. Additionally, frames that are held are duplicated, so removing these unnecessary frames and sprites would be better. These frames are there to keep the timing in mind with which they were authored but are not necessary.

# 5. Changelog and updates

• v1.0 Initial release, 10 basic animations.

 v2.0 Added 43 animations and the playable demo.

Support E-mail: pxljeff@gmail.com