

# HOW TO USE MOTION CAST ANIMATION IN UNITY 3D


This documentation is a text summary of what is in our video tutorial, also present on the animation pack files.

It will help you to better use our animations on Unity 3D

## Animation Controller

### Create an Animation Controller

If your character already has an Animator Controller, you can skip this step and add the Animation Clips in the controller like you would usually do.

**Choose the Animation Clip**  **you want to use and drop it on your character Game Object in the Hierarchy panel.**

This will create a basic Animation Controller  named after your character.



This basic controller will simply play the animation one time when you launch the game. We won't cover the use of controllers here ; it is a powerful tool which is better detailed in the official documentation :

<https://docs.unity3d.com/Manual/class-AnimatorController.html>



*By default, the controller will be created into the Animation Pack folder.*

*We recommend moving it into a best suited folder and give it a meaningful name...*

# Avatar Set up

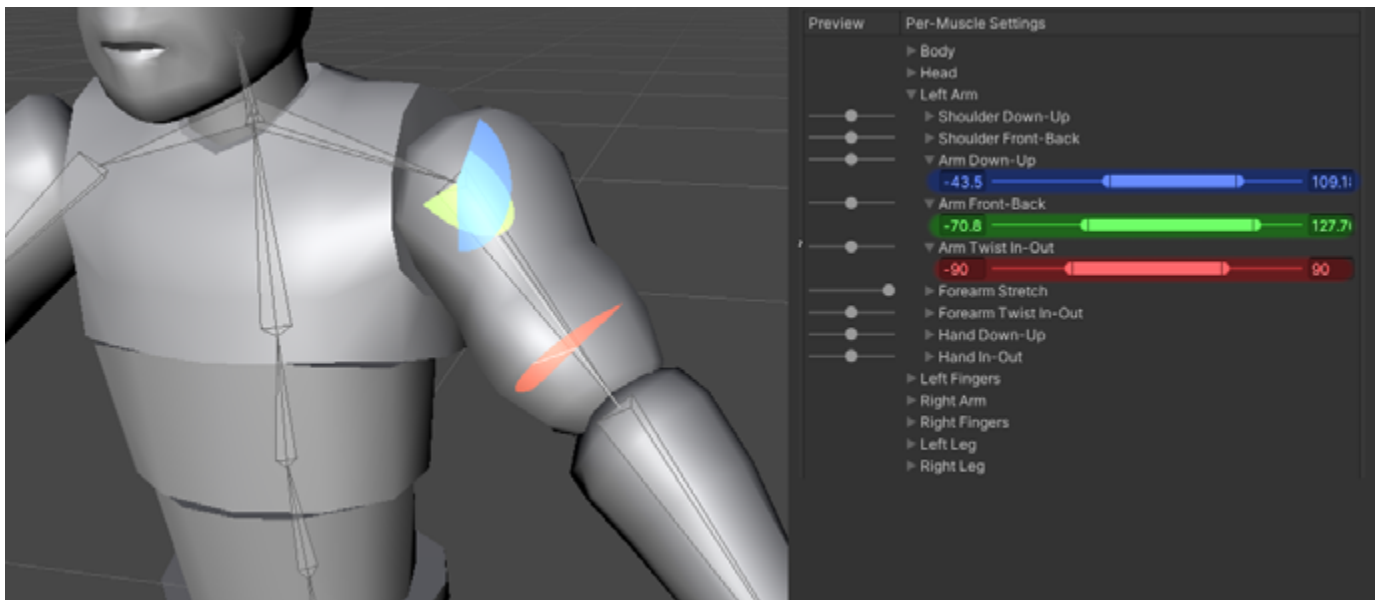
Our animations are designed for characters with average proportions and body mass ; but of course, every character is different. This can lead to cases where limbs interact weirdly with each other : typically, hands entering into the body or the head.

Unity provides a nice way to cover this with the Avatar system :

<https://docs.unity3d.com/Manual/MuscleDefinitions.html>

In the Project panel, select your character Avatar  and in the Inspector, click **Configure Avatar**.

In the Muscle & Settings tab, you can now adjust Per-Muscle settings and define the range in which each limb can operate.



Most of the time, adjusting the settings of the arms will be enough.



*You'll need to configure the Avatar for every character ; but the good news is that you can now use the same Animation Clip with different characters, even if their morphology varies a lot. You can even adjust the Avatar on runtime, i.e. if the character puts on an armor.*

# Root or No Root ?

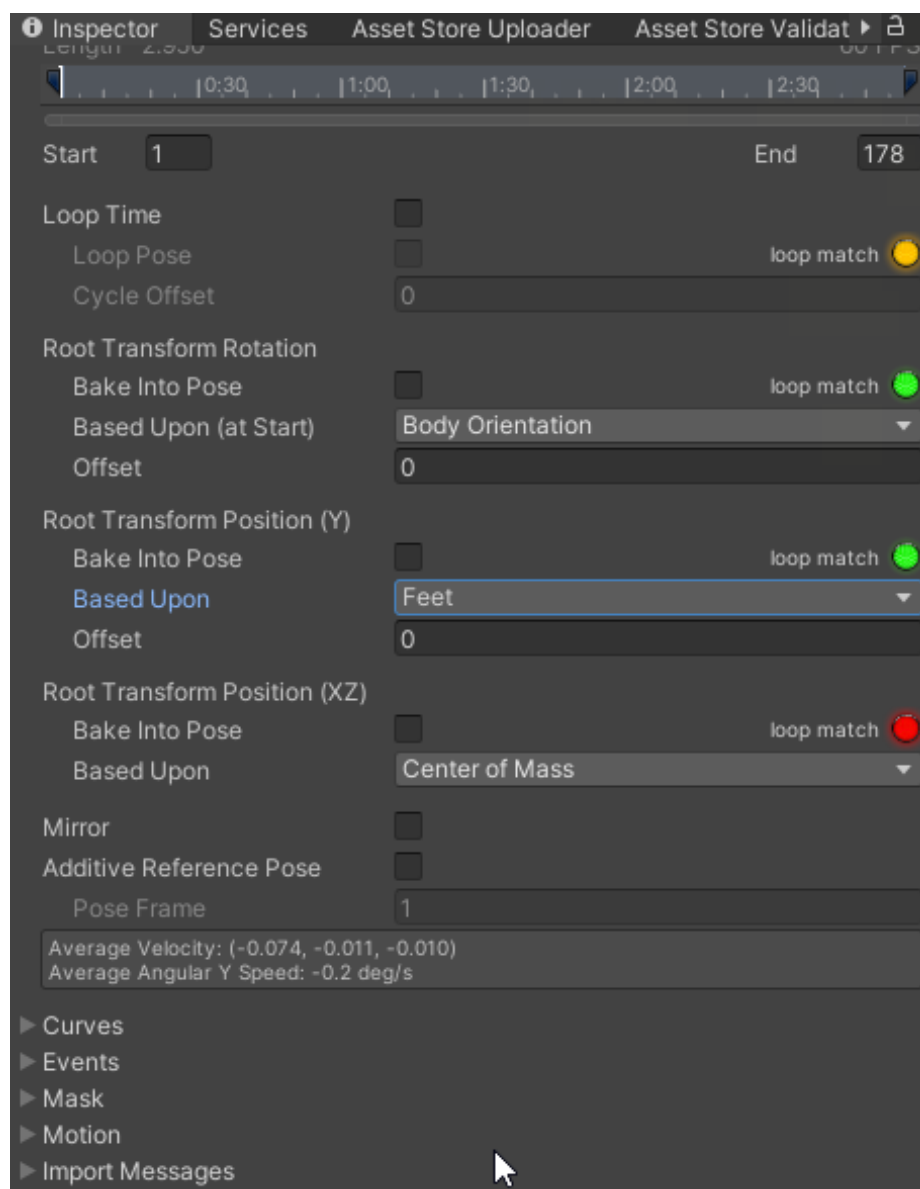
Each pack comes with two sets of animations : **Standard** and **No Root**.

**Standard** are pretty straightforward to use, because the physical movement of the character is already baked in the animation. However, the GameObject itself won't move, which isn't ideal for physical interactions or to blend two animations following each other. They are nice i.e. for cinematic scenes, NPC animations or some QTE.

Just follow Part 1 - Basic Set up and you should be ready to go.

**No Root** are preferred for computed movements. The character will be animated in place, which is nice if you want to move the GameObject by another means (typically, by user inputs and/or physics). This is the setup you usually want to use in a video game. This requires some additional steps.

In this 1.0U update we chose to make our animations No Root by changing this parameter in our animations clip :



If your character uses computed movements (which is very likely in a video game), you should use the animations from the «No root animations» folder. The character will then be animated in place, which is nice if you want to move the GameObject by another means (typically, by user inputs and/or physics).

**Select your character ; in the Inspector Tab, in the Animator Component, uncheck Apply Root Motion.**

Most of the animations should work fine ; but for some (like crouching, or kneeling down) the feet can «levitate» over the floor. It's quite easy to solve :

**In the Project panel, select the desired Animation Clip. In the Inspector, click Edit... then change «Root Transform Y / Based upon» to «Feet». Click Apply.**



*For further information, you can read [Root Motion : how it works ?](#) in the official Unity documentation.*