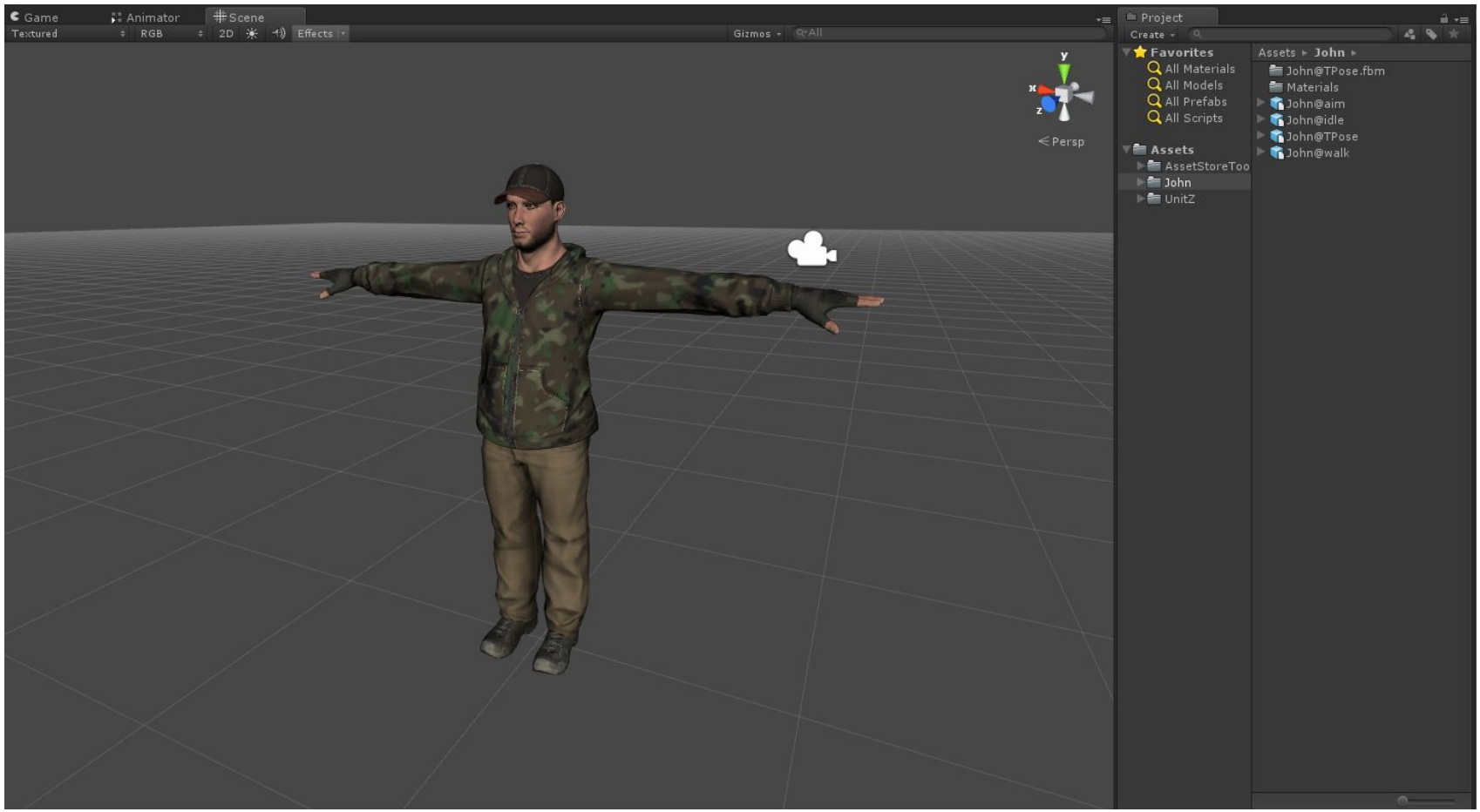
How to add new player character

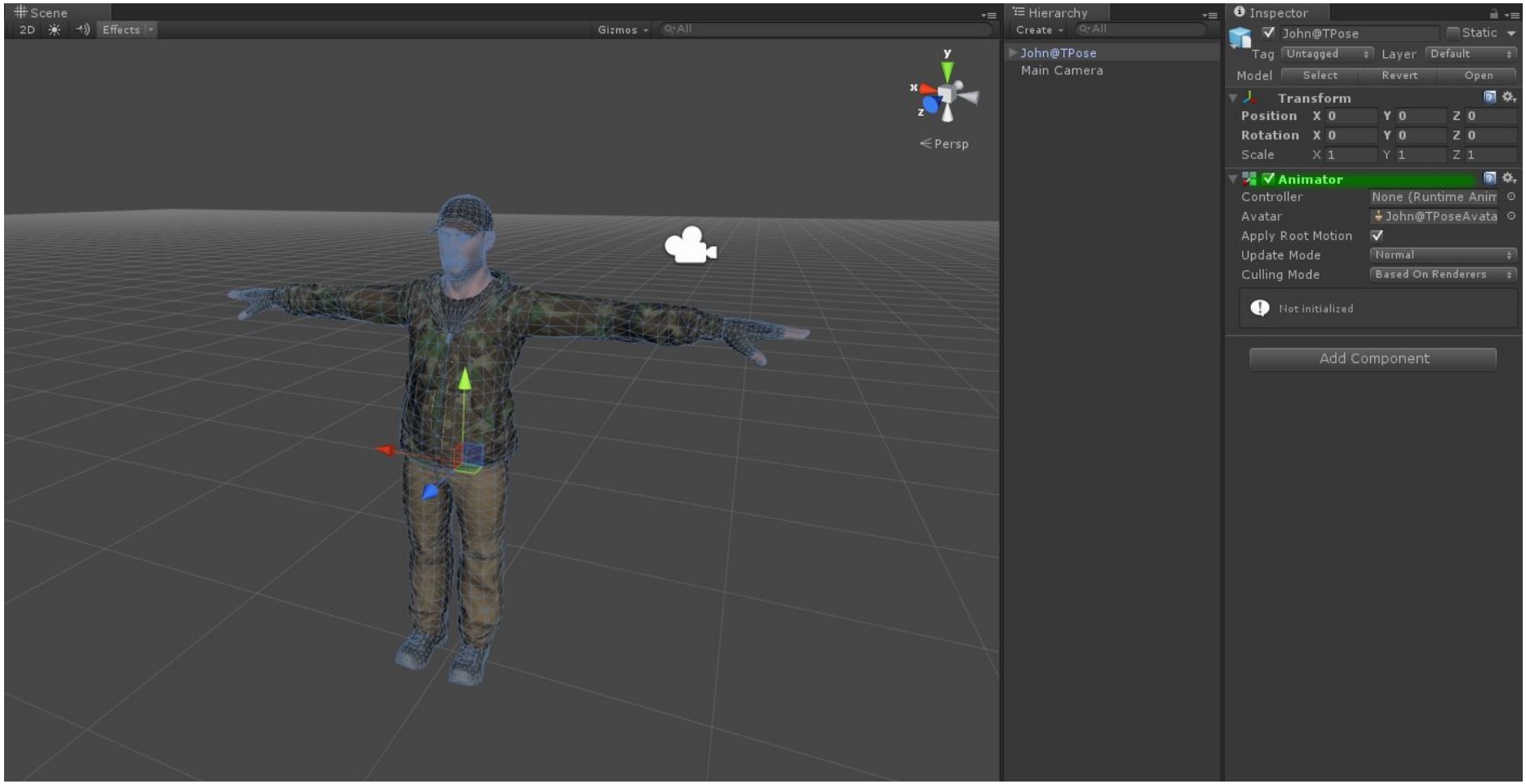
This tutorial will show you how to add animated model as a new player character for **Unitz**

This sample needs a character model with animations ***Walk*** ,***Idle*** ,***Aim*** (at least 3 animations)



In this tutorial i using John with AIm , Idle , Walk create with Mixamo animation. https://www.mixamo.com

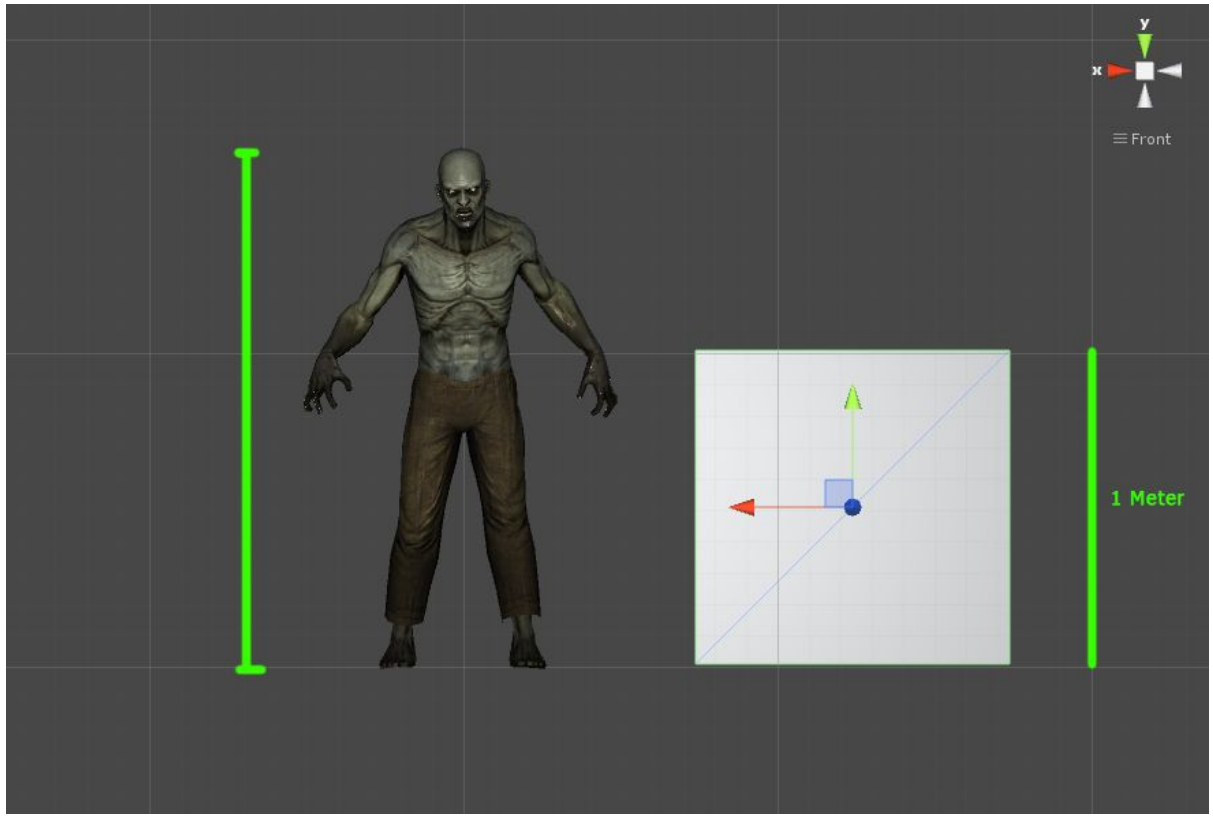
Step 1. Import a character to your project and place it into the scene.



Files > New Scene and place a character model into the scene set position to **0,0,0** make sure everyhing is cleared and an **Animator component** must included in the model.

Importance : Character Scales

When you place a character into the scene, please check a scales, just make sure it look correctly.

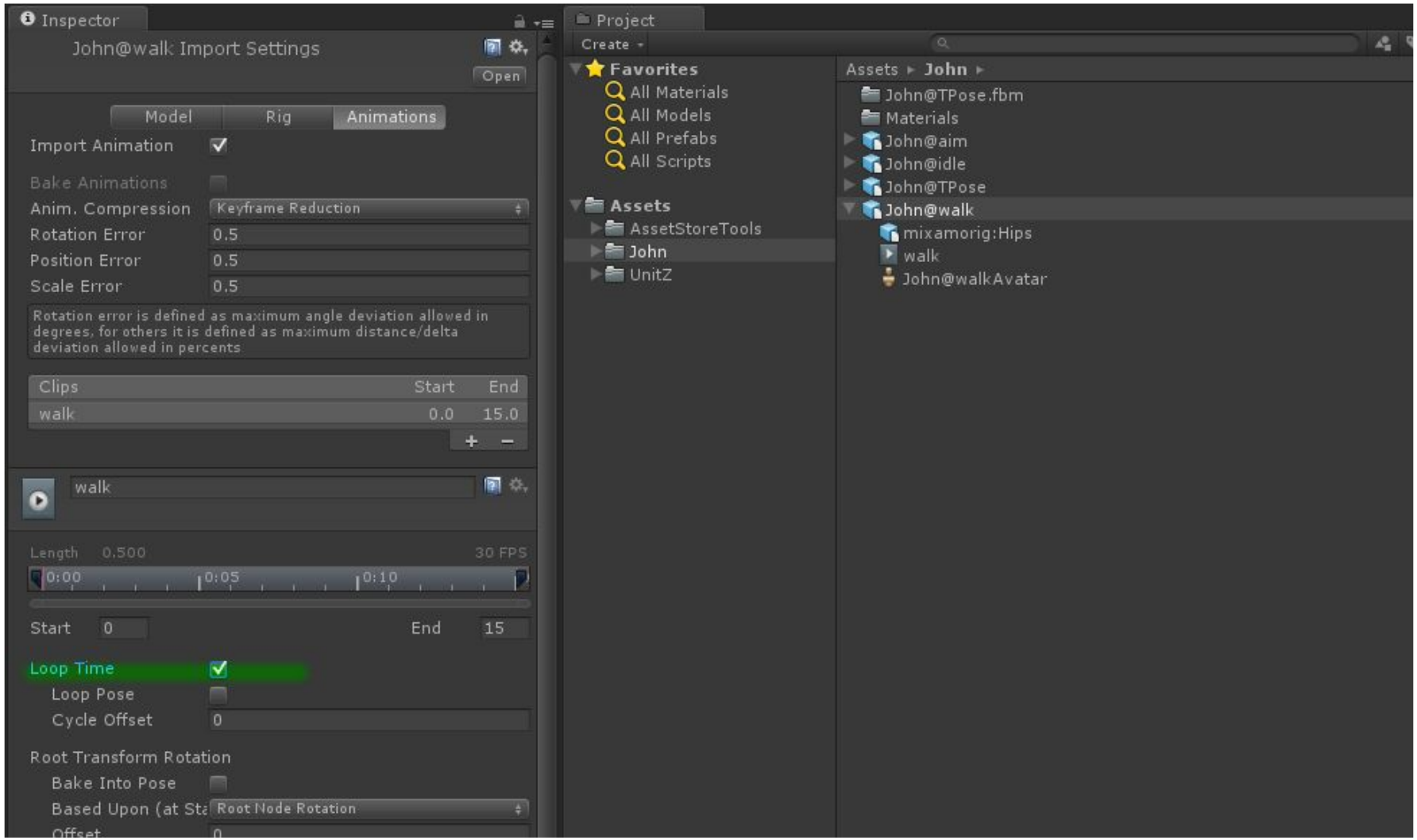


Note *

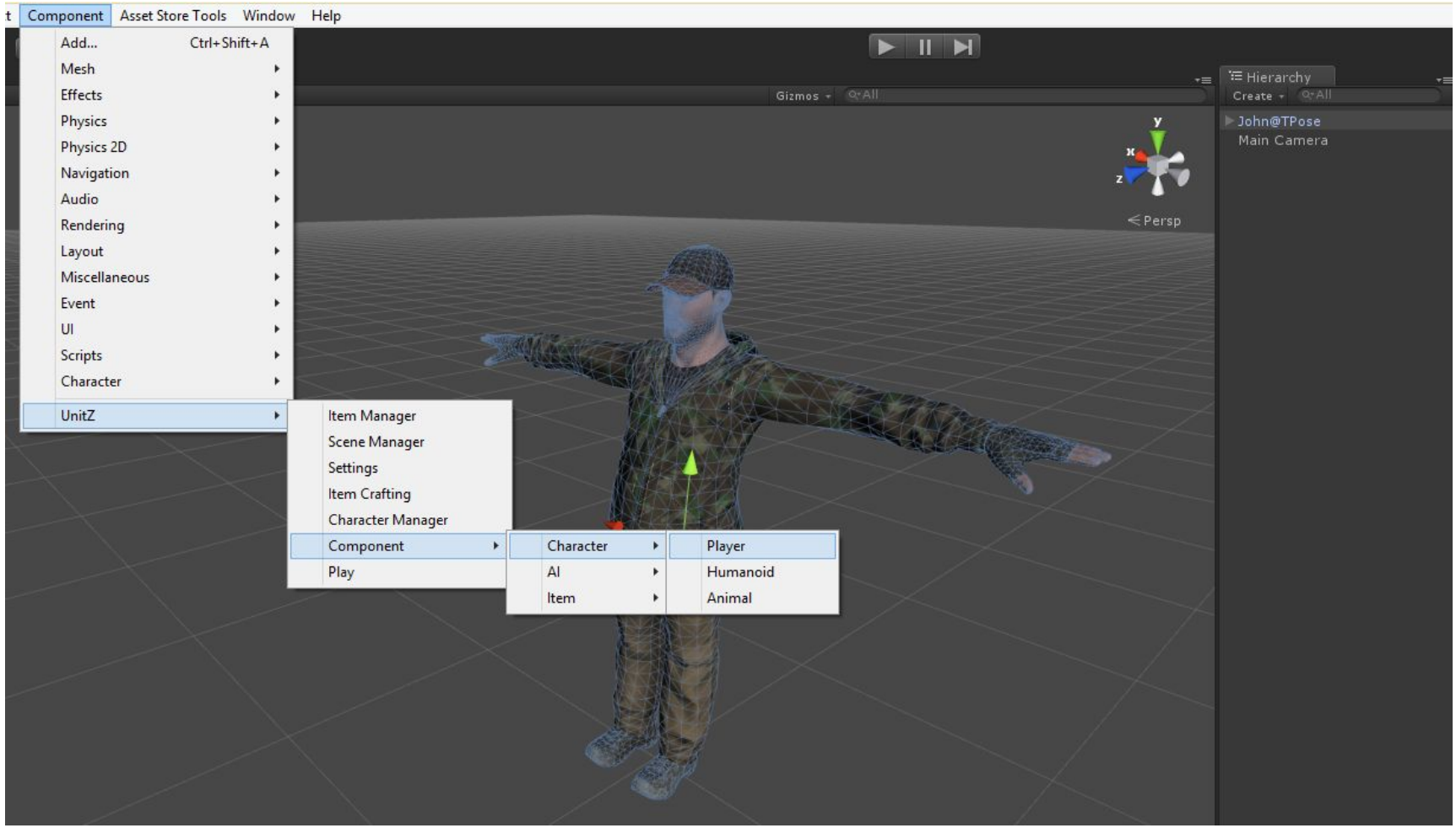
Basically a good characters and props must come with a properly scales. however you can check and compare a character model with a “**Cube**” the cube is 1x1x1 mater, please create a cube for comparing by **GameObject > 3D Object > Cube** so a character scales must look like in the picture. (it’s about 180 tall as standard)

Importance 2 : Animations

All animations like **walk , run , idle** must set as Loop

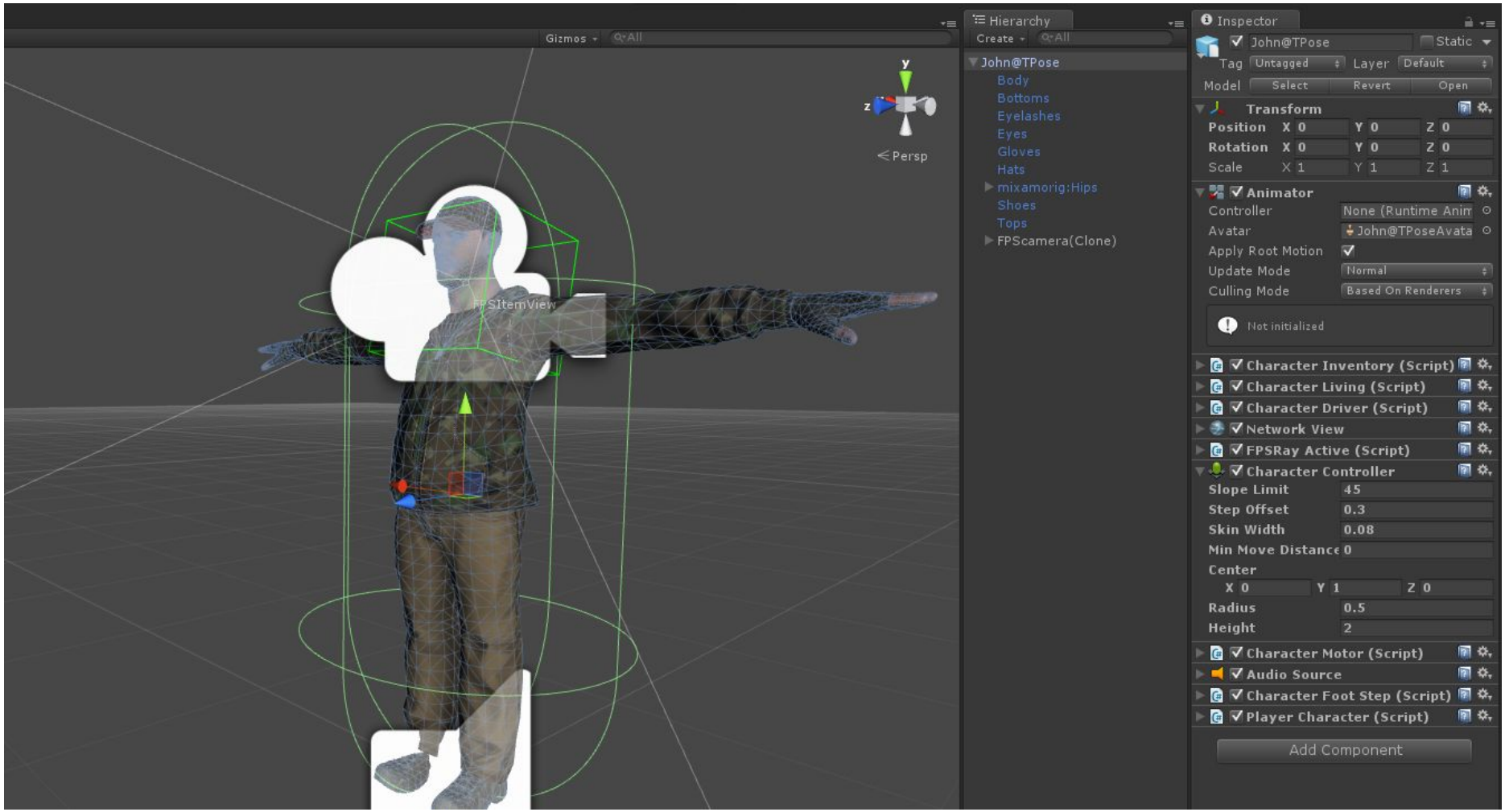


Step 2. Adding a character components into your character.



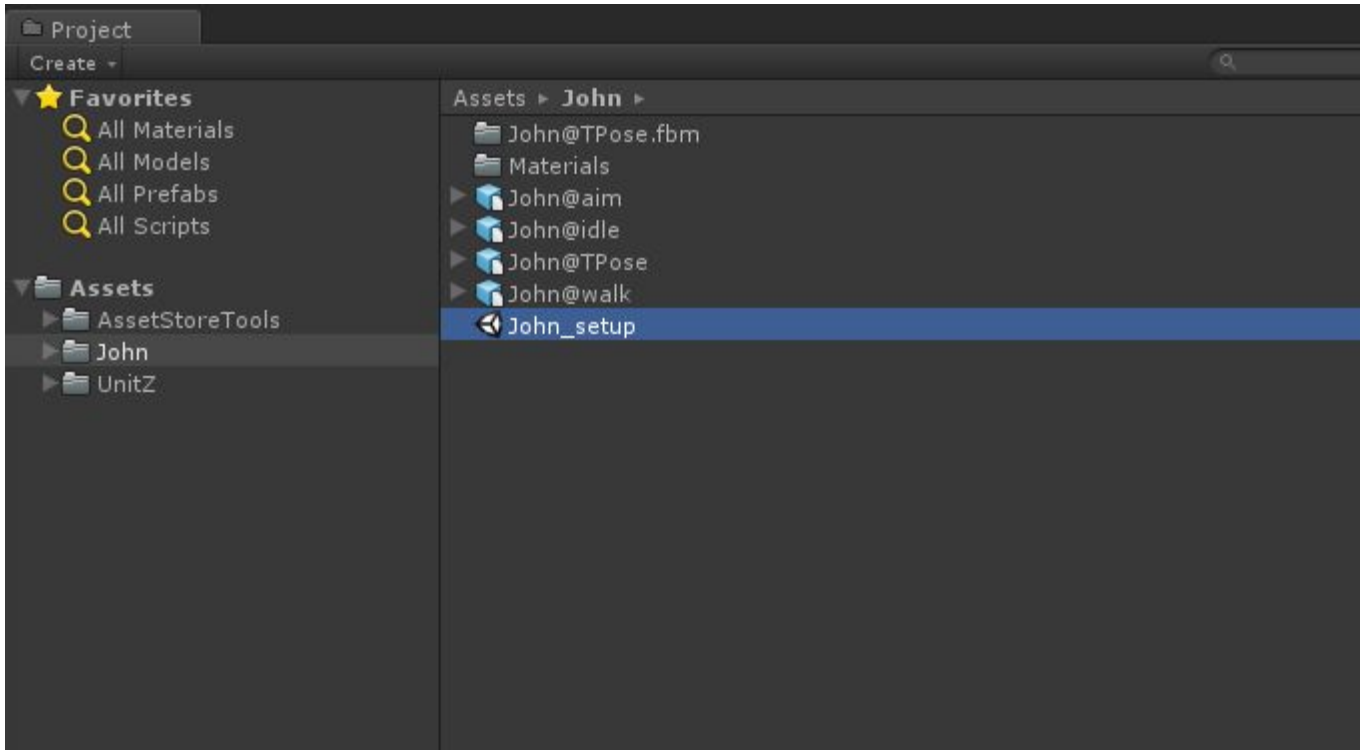
Select your character and go to Window > UnitZ > Component > Character > Player.
then all component will automatically added to your character.

Setup a **Character Controller** size, make sure it look fit perfectly.

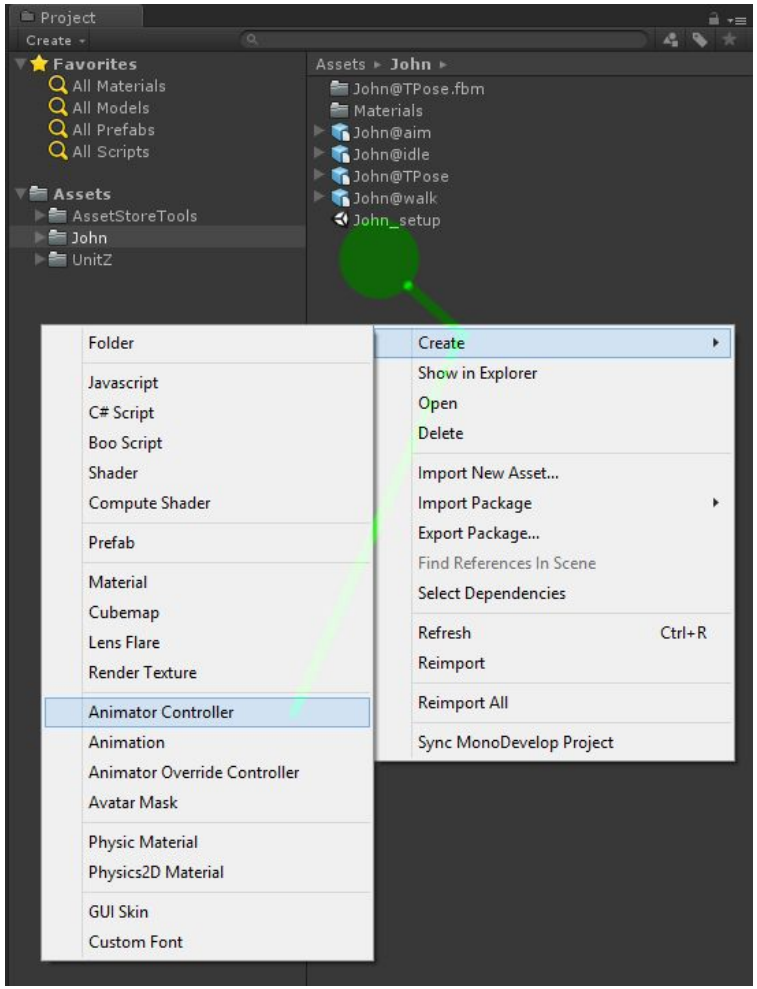


You can see a **FPScamera(Clone)** has been added to your character. so please move it to a good position like this image. this camera is a FPS view in your game. and you can add **Image effect** to this camera.

Step 3. Save scene named “**John_setup**” so we will working on this scene until this character is ready to use in game.



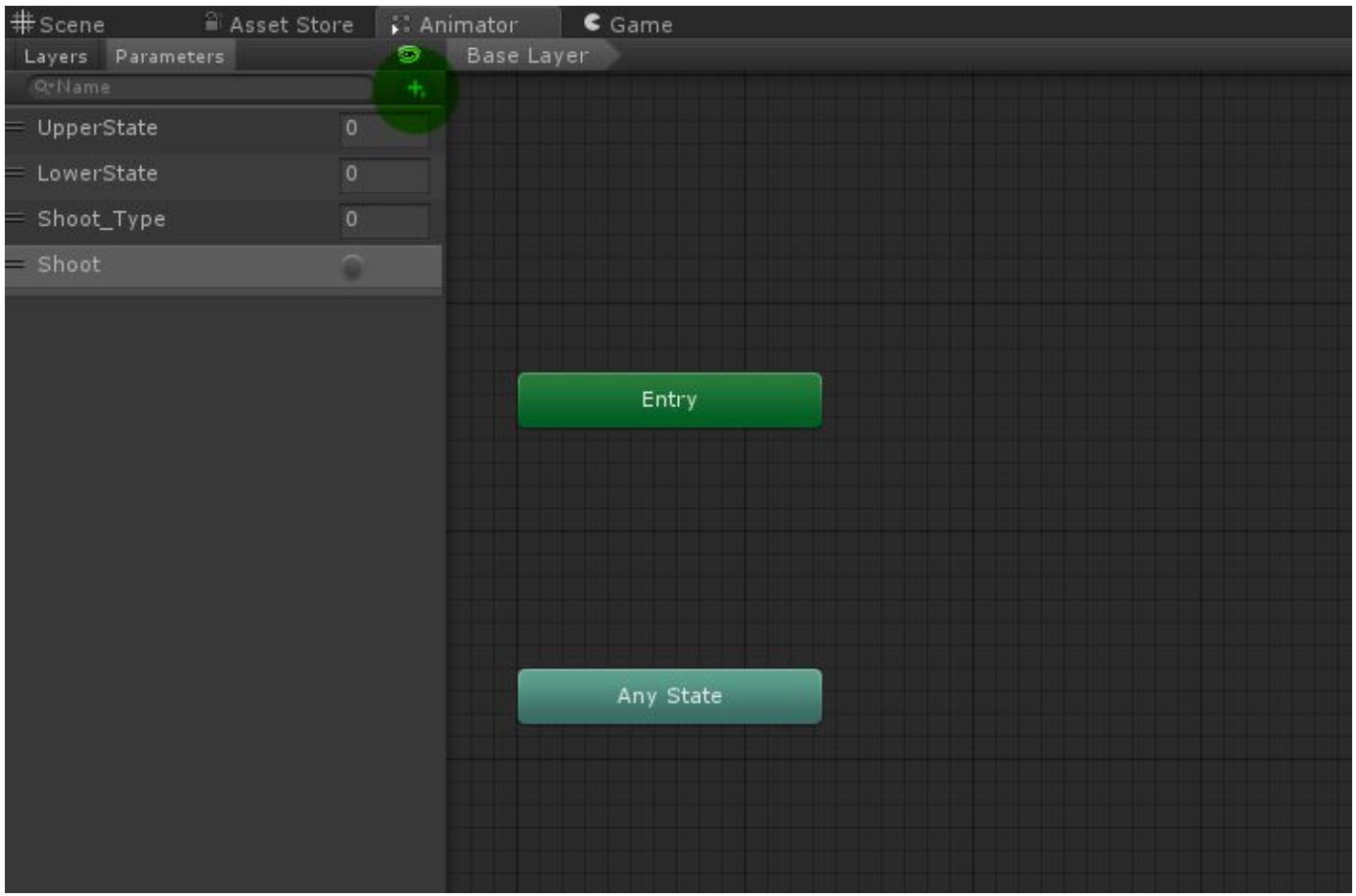
Note * You should save a “**John_setup**” to the same place as a character source model, one scene per one character so it’s easier to config and managing.



Step 4. Create ***Animation Controller***

Right click on a space in a character source folder and select **Create > Animation Controller** and named **“john_controller”**

Open ”**john_controller”** on Animator tab and adding a following parameters,
by **Click plus +** button on parameters tab



Paremeters

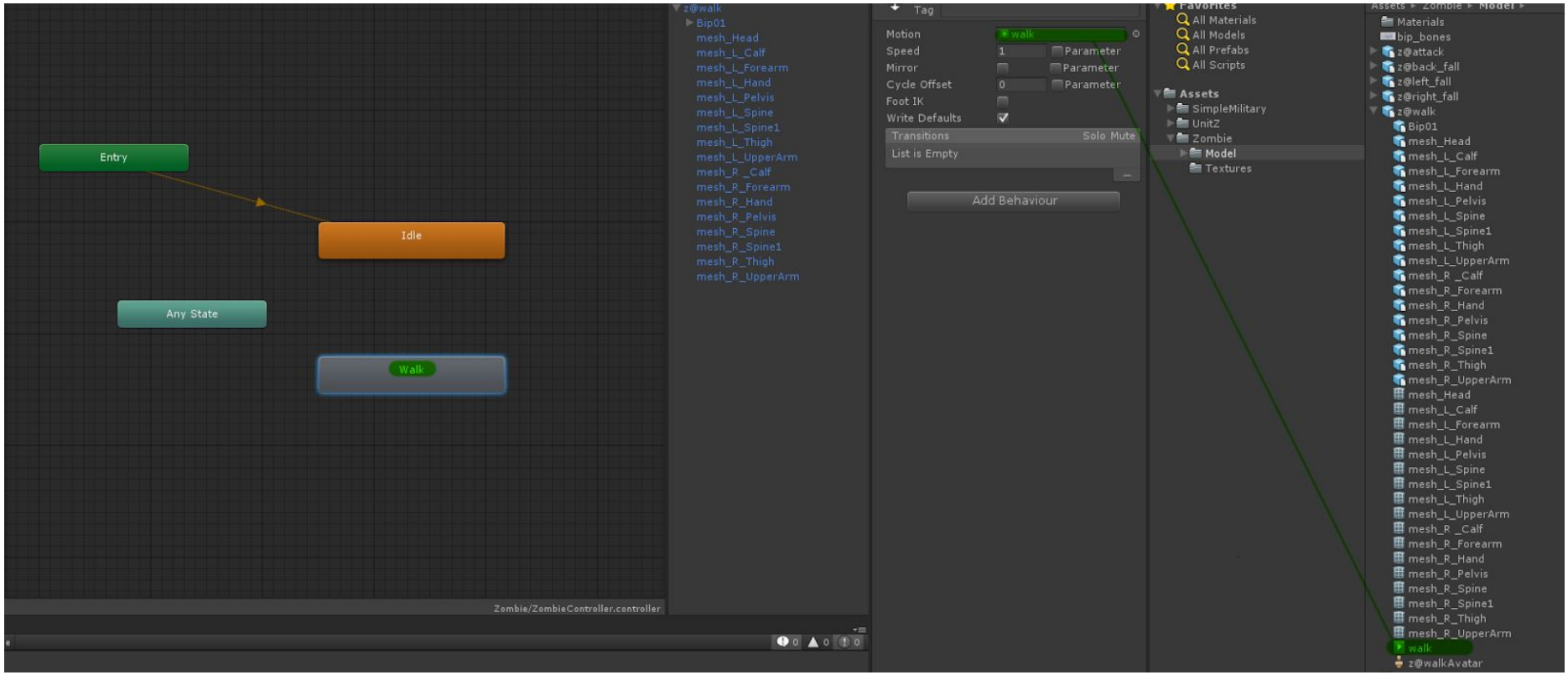
UpperState : Int

LowerState : Int

Shoot_Type : Int

Shoot : Trigger

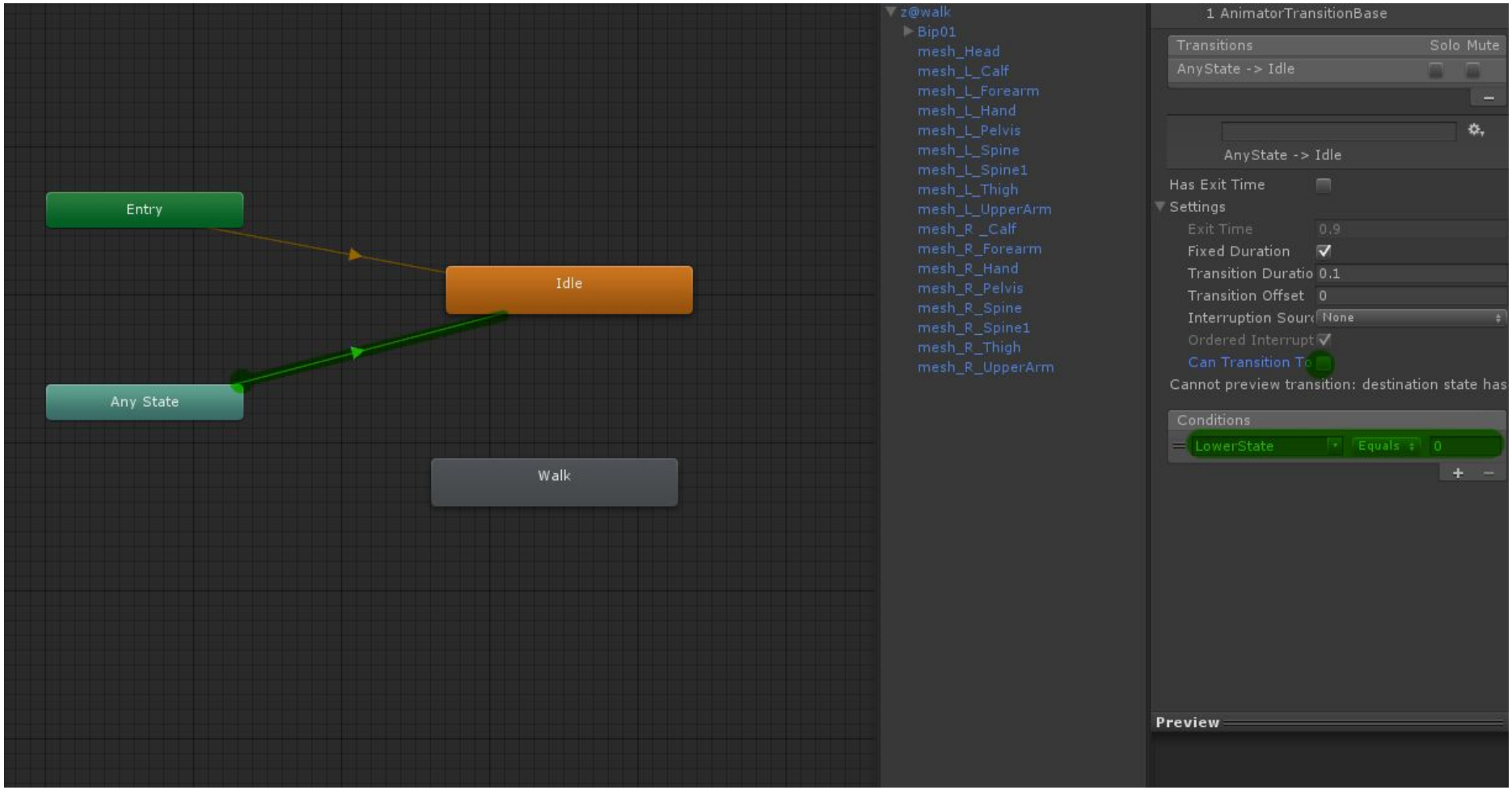
Step 4. Adding 2 **States** into the animator
Idle State and **Walk** State, by **Right Click** on animator work space and **Create State > Empty**



Add **Walk Motion** from a character model into **Motion** parameter on **Walk** State
Add **Idle Motion** from a character model into **Motion** parameter on **Idle** State

Note * you can directly drag any motion from your source into the animator, so it will create a state automatically.

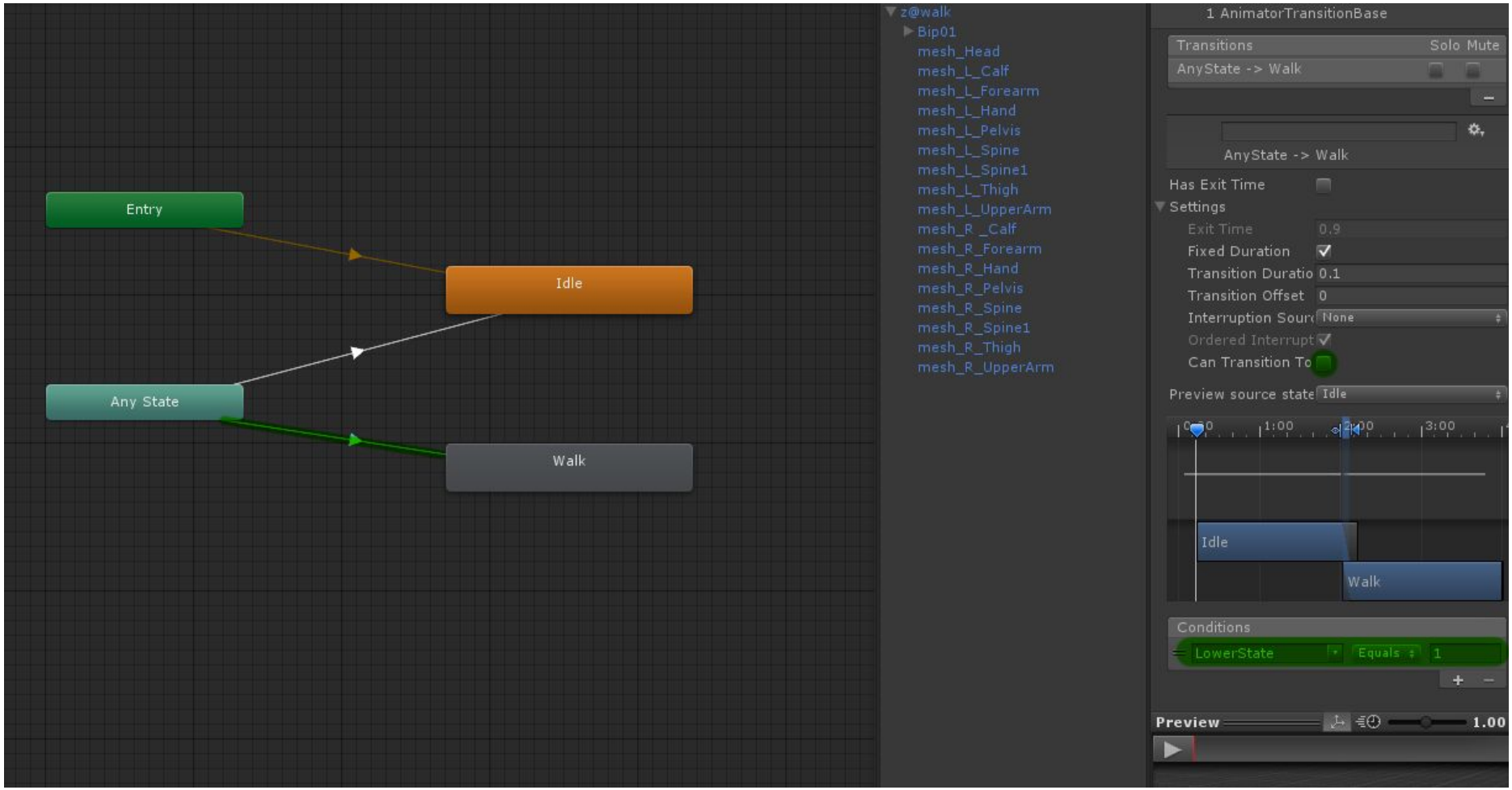
Step 5. Connect **Any State** to **Idle State**



Condition : LowerState : Equals : 0

Uncheck Can Transition To Self parameter

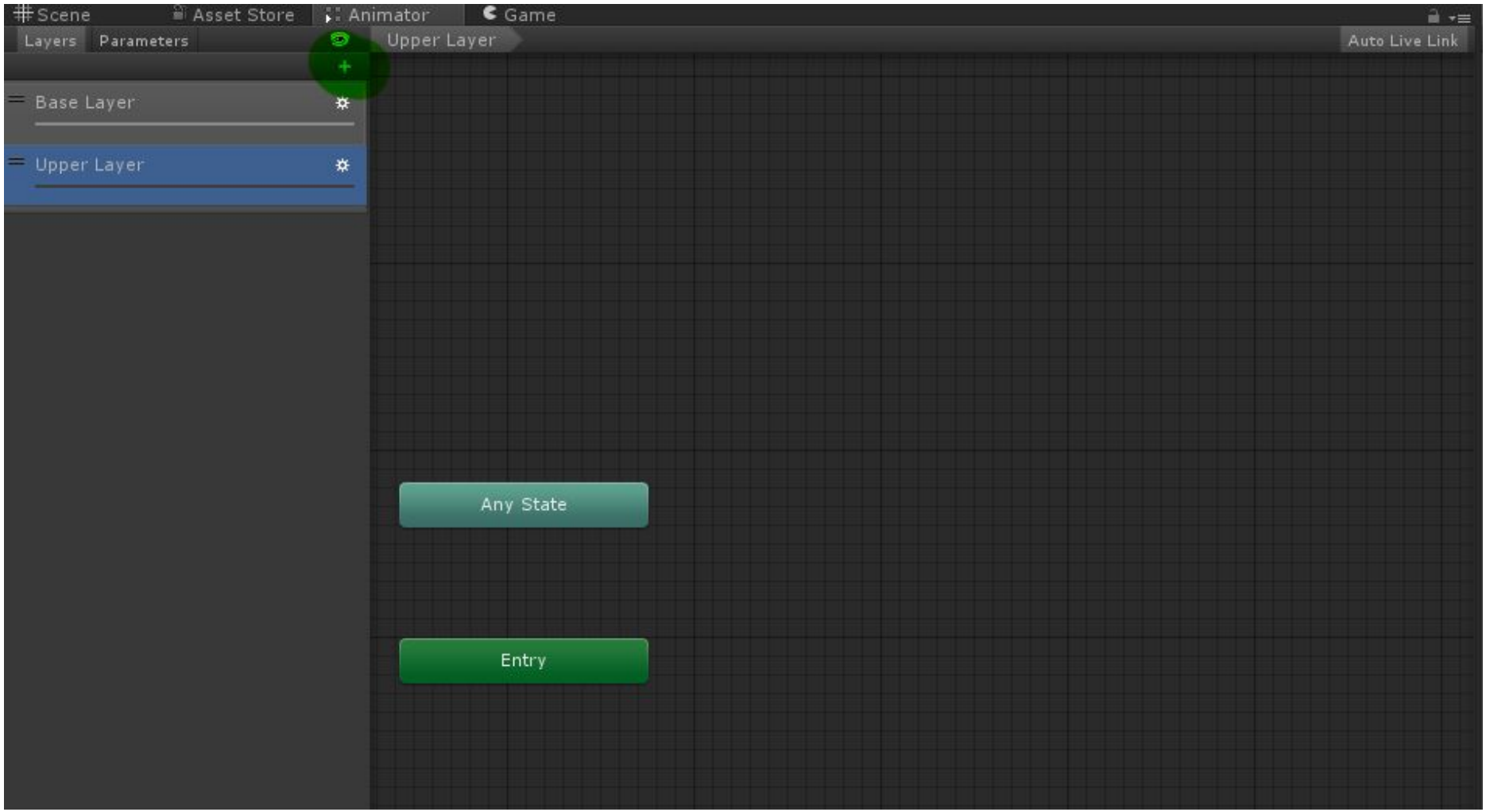
Step 6. Connect **Any State** to **Walk State**



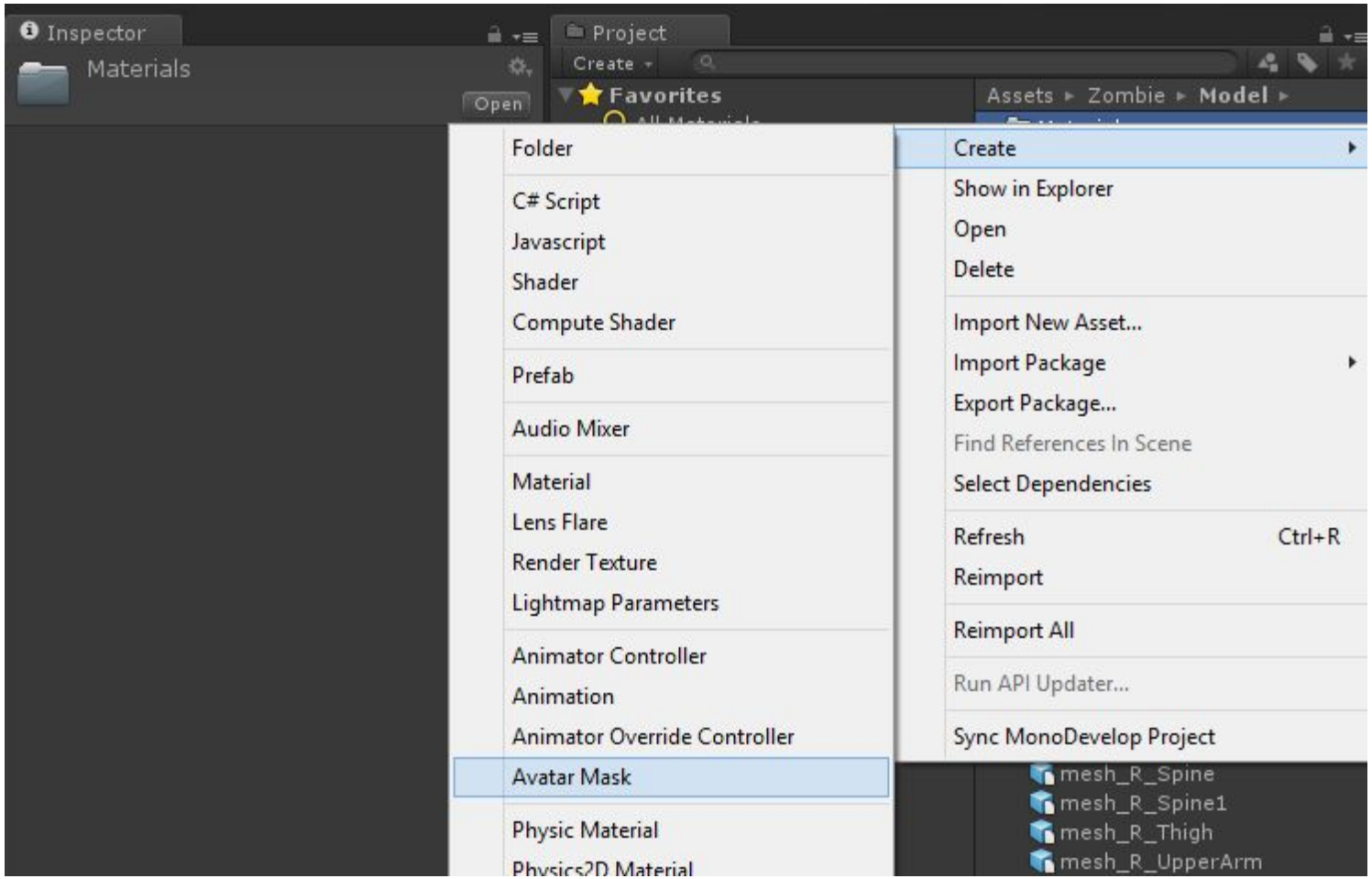
Condition : LowerState : Equals : 1

Uncheck Can Transition To Self parameter

Step 7. Add **Look at** control to your character, Please back to animator and add new **Animation Layer** by Click **plus button** on **Leyers tab**. then named a layer to **“Upper Layer”**

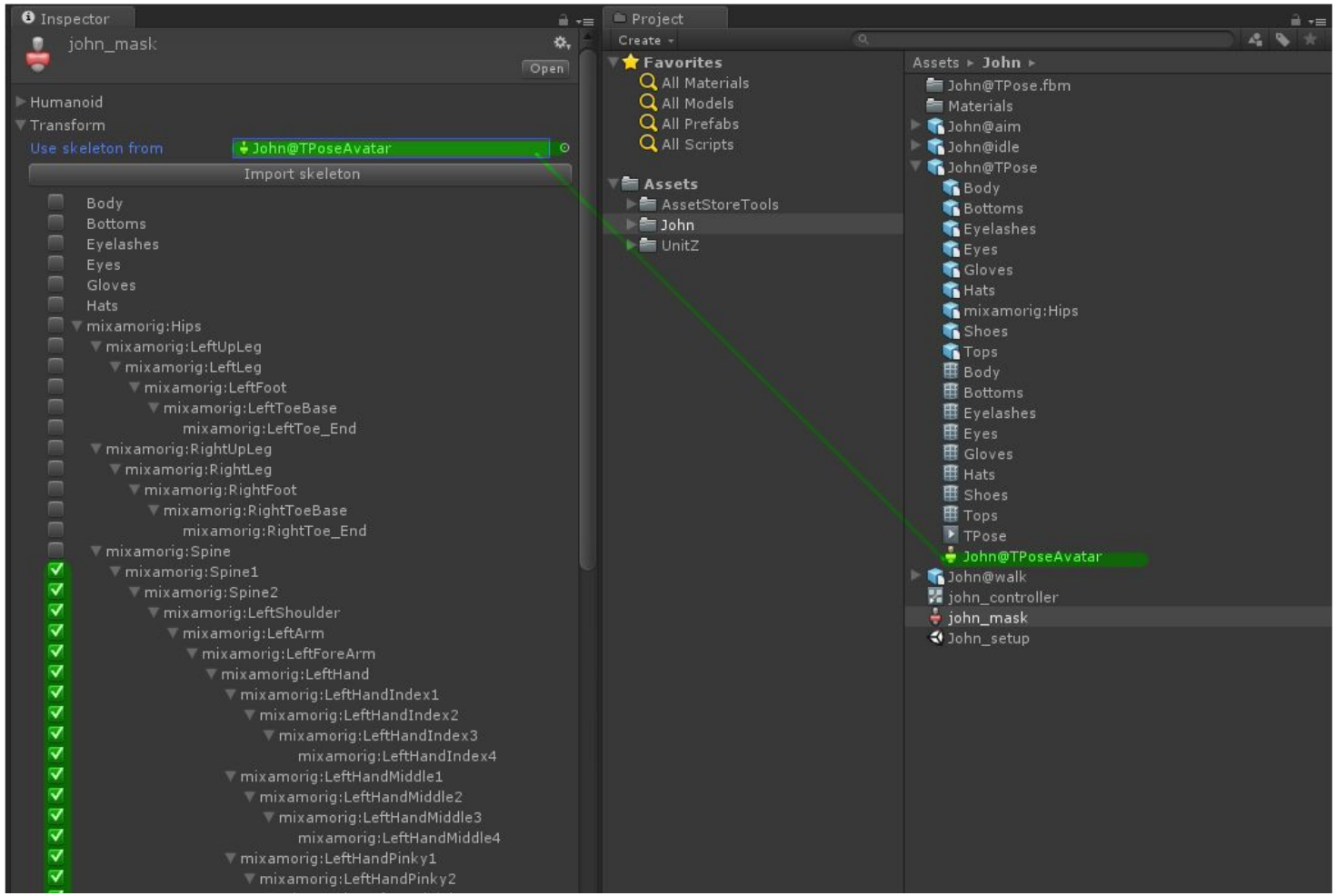


Step 8. Create **Avatar Mask**.
Please right click on a space in character source folder and select **Create > Avatar Mask**



Note * Avatar Mask should in the same place as a character source like an Animation controller.

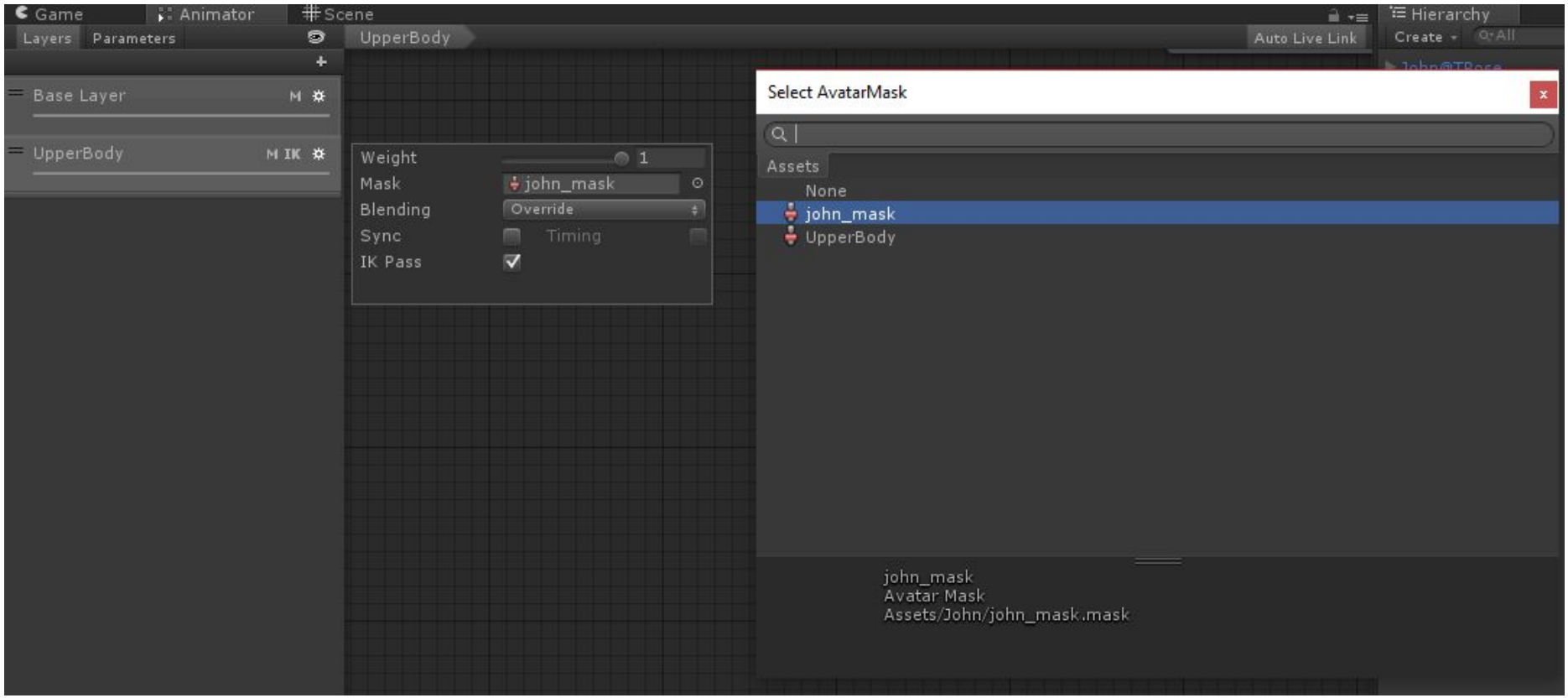
Named “**john_mask**” and add **Avatar** from a character model into **Use skeleton from** parameter and then Click **Import Skeleton** on Transform tab, and just checked only bones on ***upper part*** of body.



this is make a character upper and lower are independent. so you can run while the upper part is idle.

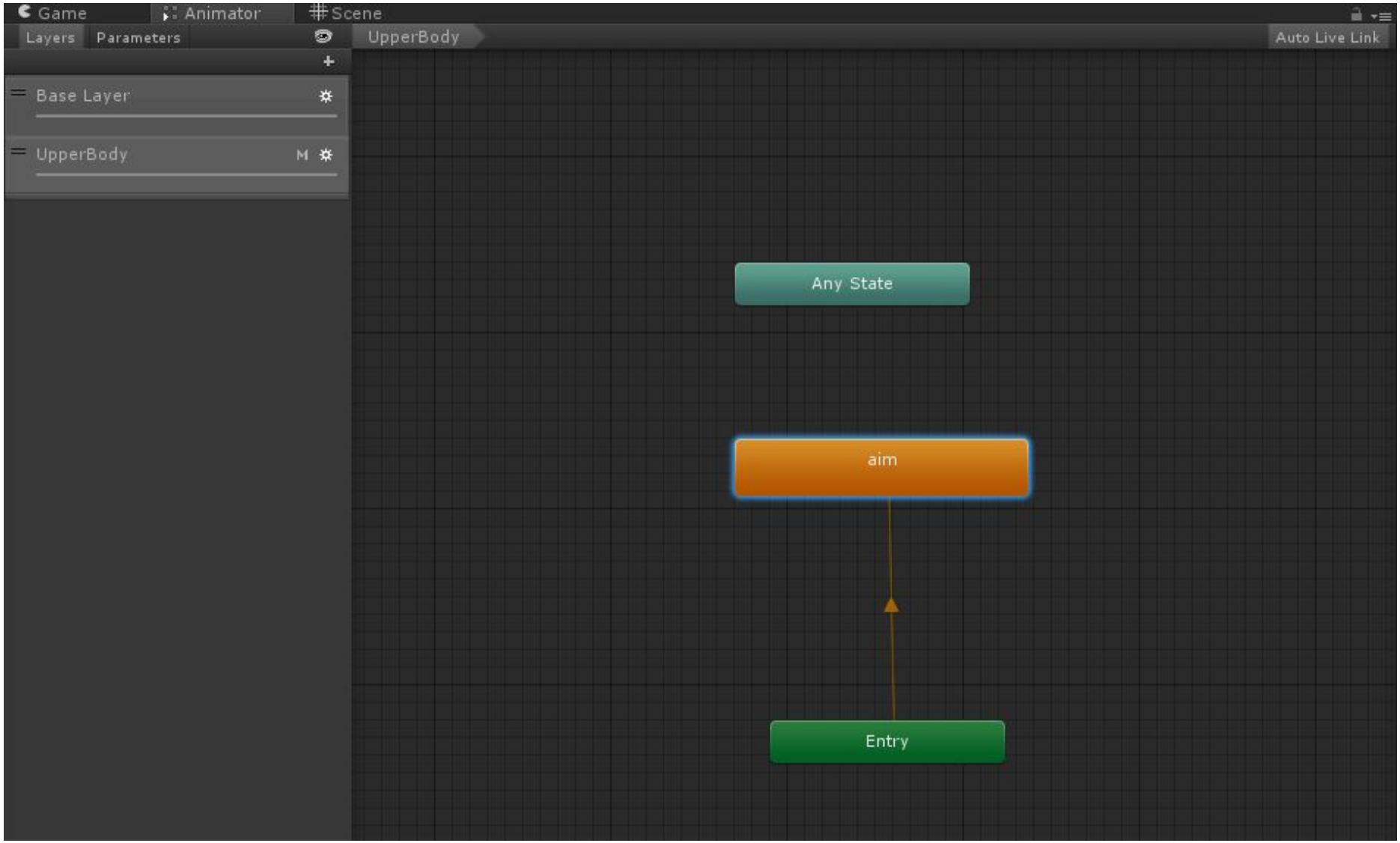
Step 9. Add **Avatar Mask**. to Upper layer animation controller

Please back to **Upper layer** layer on Animator and adding Mask by click on a **Gear** button and then add **John_mask** to it,

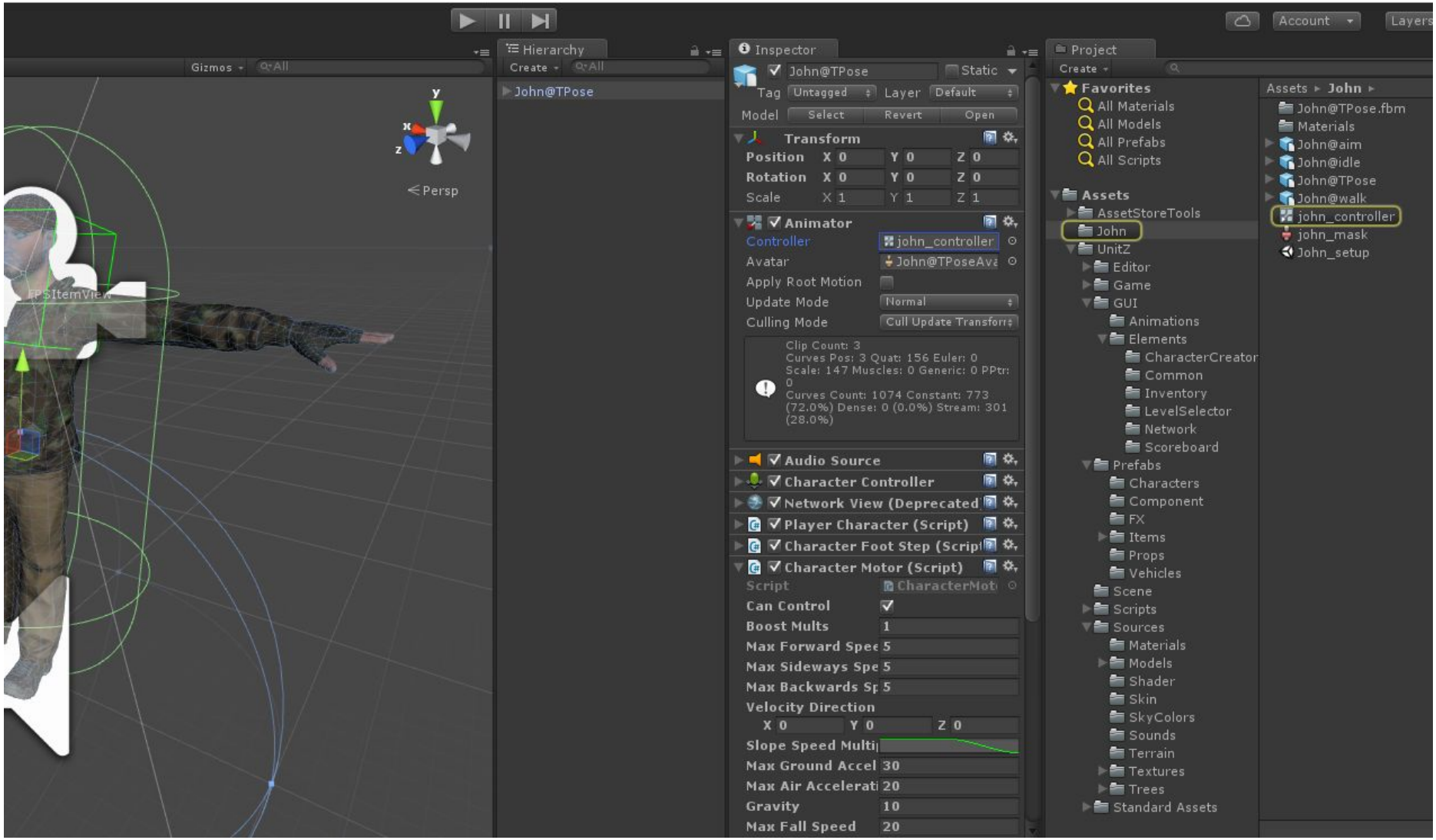


Don’t forget to Enable IK Pass and set Weight to 1

Step 10 . Add **Aim** motion from John to the **Upper** layer

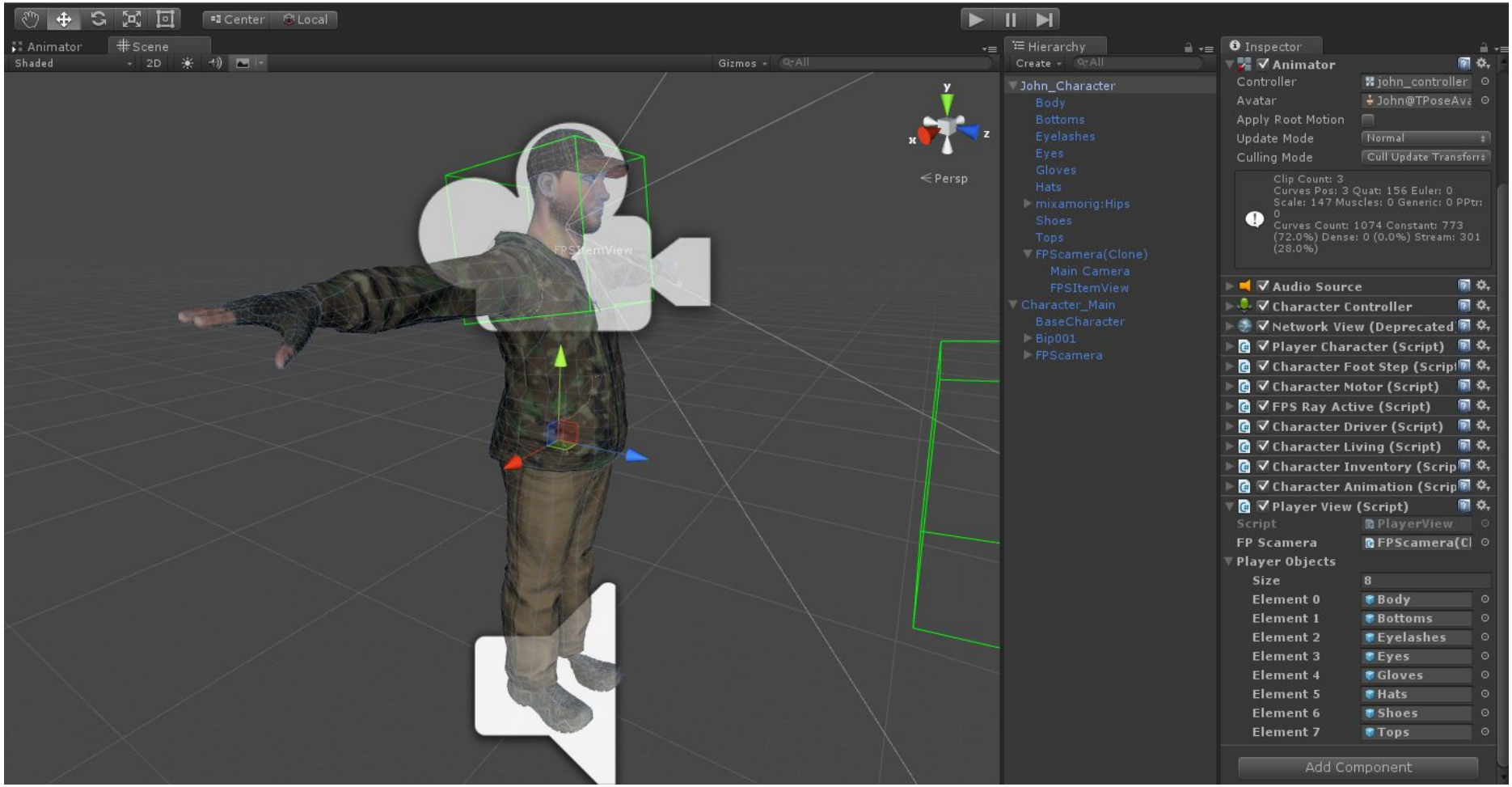


Step 11. Back to the scene adding John animation controller into the Animator component.



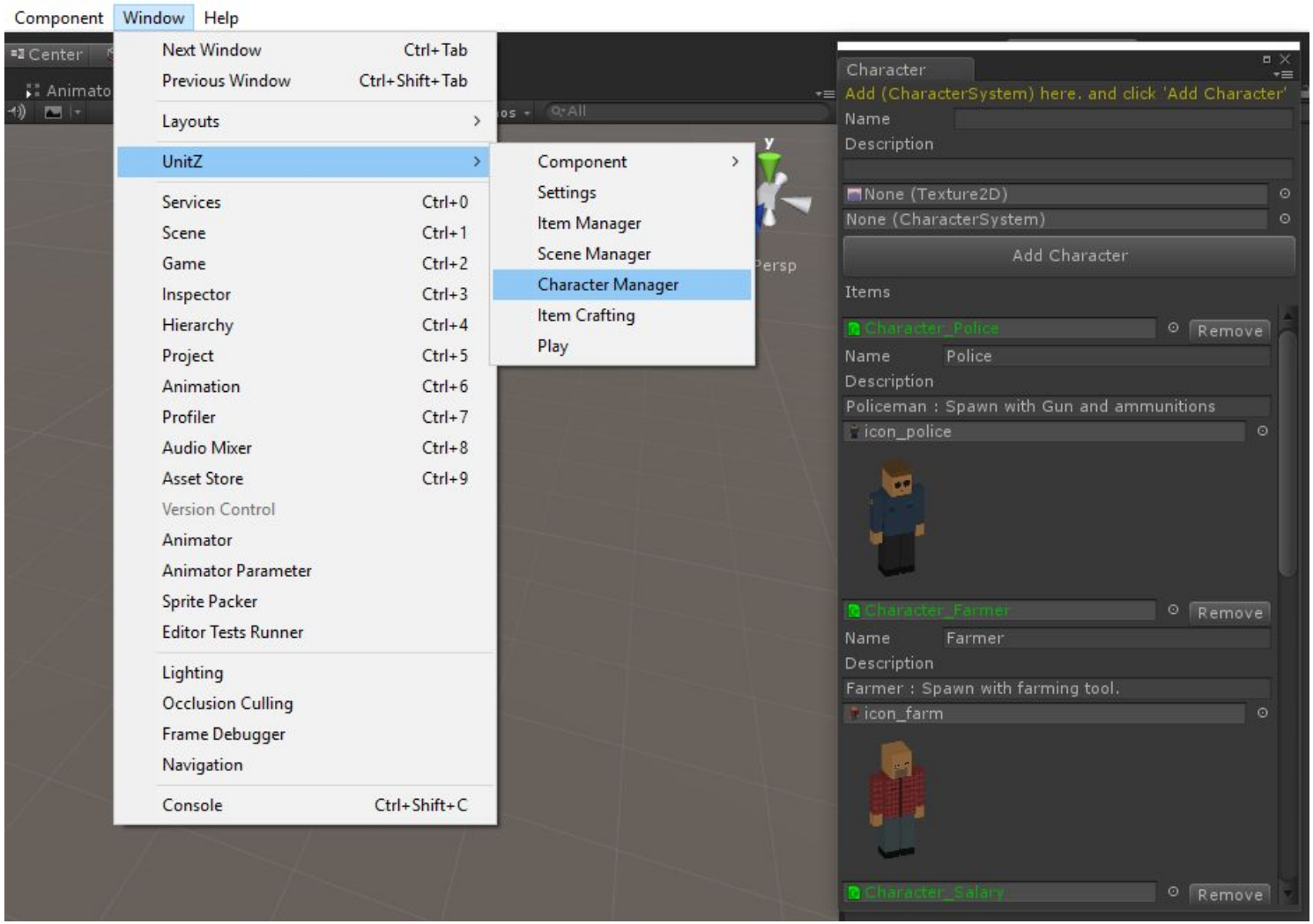
you should re name him as John_Character or something and then go to next step.

Step 12. Add all the mesh of the character to **Player Objects** on **Player View** component



This step is to make all the mesh renderer of the character body only showing in the other player view and hide them in your FPS view.

Step 13. Save a character as prefab and then add to the **Character Manager**



Please go to Window > UnitZ click on **Character Manager** you will see a **Character** panel show up so you can add your new character prefab here includes with name and display icon.

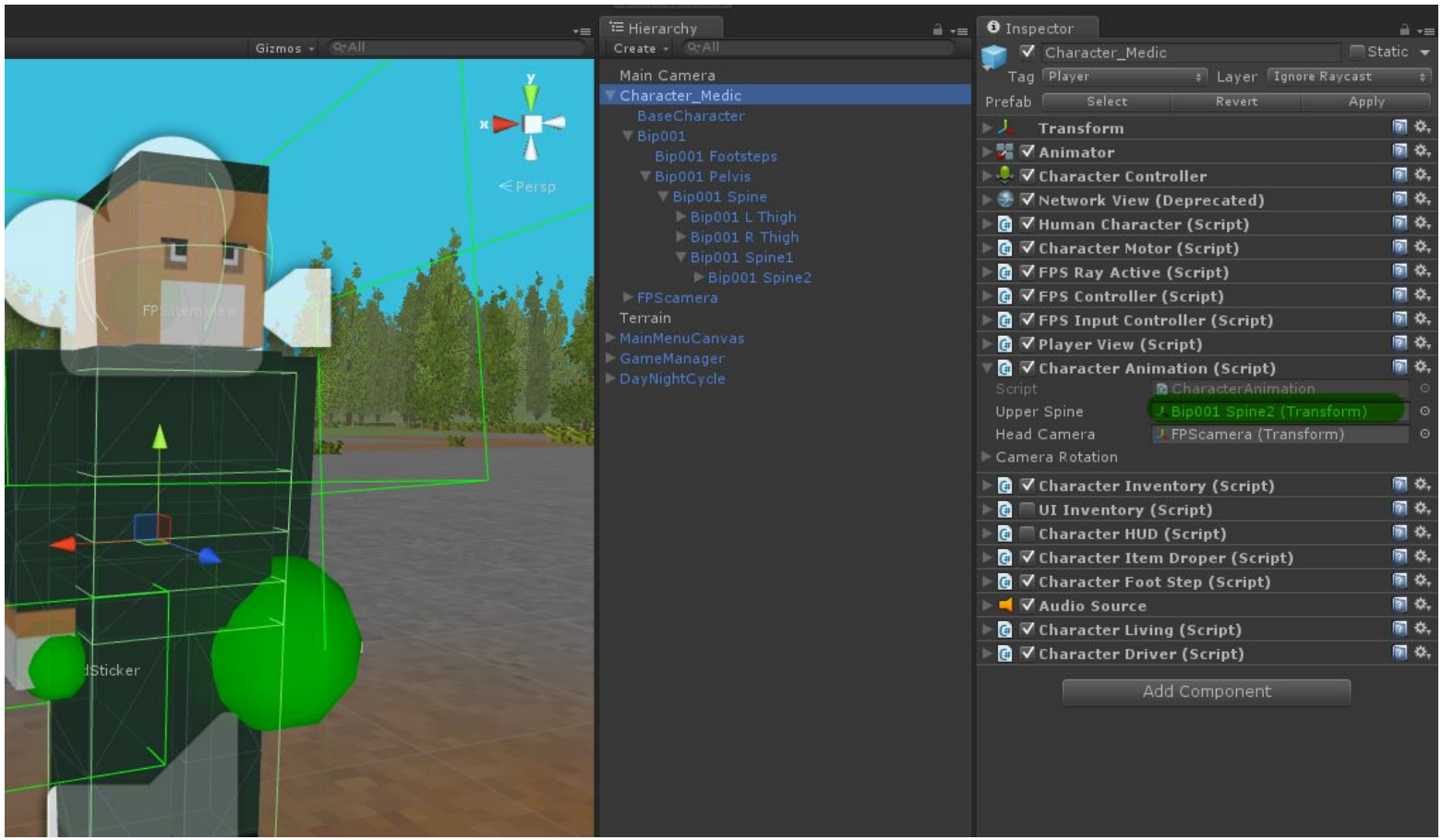
Step 14. if everything is ok let's go to play test.
please go to Window > UnitZ > Play or you can just start directly at **mainmenu** scene

let's go create **New Character** and you will see John in the last oder of character list.

How to make a character look

the character will look along with a gun point when you look up or down.

Please look at Character Animation component on your character you will see **Upper Spin** parameter



if your rig is **Generic** you have to add a first upper spin to this parameter, basically it should be Spin1 or 2

if your rig is **Humanoid** you can use this code on ChracterAnimation.cs

```
if(headCamera){
	animator.SetLookAtPosition (headCamera.transform.forward * 10) ;
}
```

Starter Item

You can set a starter item by add it to **Item Starters** on **Character Inventory** component on your chracter.

Item Drop after dead.

You have to add **ChracterItemDrop.cs** component to your character and add **ItemBackpack** prefab from Assets\UnitZ\Prefabs\Items to the **Backpack** parameter

Foot Step sound

You have to add a foot steps sound to **Character Foot Step** component on your character.