LOW POLY

## animated people

by polyperfect



Have a Suggestion?

info@polyperfect.com

## Thanks!

First of all, thank you for purchasing our pack, we really appreciate that! We are putting a lot of effort into this.

We are also planning to expand the list of the characters and their animations in the future with free updates of the pack. Check out our **Facebook Page** for any news.

## **Handy Links;)**

#### **Other Low Poly Packs**

**Low Poly Animated Animals** 

**Low Poly Animated People** 

**Low Poly Animated Dinosaurs** 

**Low Poly Animated Prehistoric Animals** 

**Low Poly Ultimate Pack** 

**Low Poly War Pack** 

#### 2D Packs

**Low Poly Icon Pack** 

**Fancy Icon Pack** 

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## **Updates**

#### **VERSION 2.5**

New animation pack: Common Animations. 50 New animations from mobile texting to dancing. New scripts: Atlas Texture generator and Simple Player Controller script (that lets you walk through the scenes). Also new demo scenes in Character Viewer and small fixes. Cheers! Info@polyperfect.com

#### **VERSION 2.0**

50+ new characters, new rigs, new .fbx for Mixamo, new scenes. Lots of things!

#### **VERSION 1.3**

Wander script improvements and lots of new animations!

#### **VERSION 1.2**

New characters, improvements of all meshes, Maximo animations support + some new cool scripts.

#### **VERSION 1.1**

Huge script updates, 12 new characters, new animations, and textures. Enjoy!

## Characters

- Action hero man (854 vertices)
- Action hero Woman (806 vertices)
- Astronaut man (659 vertices)
- Astronaut woman (659 vertices)
- Basketball player man (537 vertices)
- Basketball player woman (616 vertices)
- Boxer man (499 vertices)
- Boxer woman (578 vertices)
- Businessman (629 vertices)
- Butler man (691 vertices)
- Businesswoman (679 vertices)
- Carpenter man (862 vertices)
- Carpenter woman (754 vertices)
- Casual man (559 vertices)
- Casual woman (608 vertices)
- Chef man (776 vertices)
- Chef woman (767 vertices)
- Claus man (815 vertices)
- Claus woman (860 vertices)
- Clown man (813 vertices)
- Clown woman (781 vertices)
- Construction worker man (779 vertices)
- Construction worker woman
- Cowboy man (931 vertices)
- Cowgirl woman (808 vertices)
- Cyclist man (729 vertices)
- Cyclist woman (755 vertices)

- Diving man (912 vertices)
- Doctor man (777 vertices)
- Doctor woman (689 vertices)
- Eskimo man (742 vertices)
- Eskimo woman (681 vertices)
- Explorer man (763 vertices)
- Explorer woman (803 vertices)
- Farmer man (783 vertices)
- Farmer woman (685 vertices)
- Fireman (773 vertices)
- Firewoman (776 vertices)
- Hazard man (605 vertices)
- Hazard woman (675 vertices)
- Judge man (828 vertices)
- Judge woman (691 vertices)
- Knight man (600 vertices)
- Lumberjack man (852 vertices)
- Lumberjack woman (686 vertices)
- Maid woman (690 vertices)
- Mechanic man (718 vertices)
- Mechanic woman (707 vertices)
- Metalhead man (706 vertices)
- Metalhead woman (705 vertices)
- Mummy man (811 vertices)
- Mummy woman (904 vertices)
- Ninja man (548 vertices)
- Ninja woman (593 vertices)
- Naval officer man (872 vertices)
- Naval officer woman (908 vertices)

- Ninja woman (593 vertices)
- Paramedic man (649 vertices)
- Paramedic woman (763 vertices)
- Pilot man (754 vertices)
- Pilot woman (805 vertices)
- Pirate man (906 vertices)
- Pirate woman (789 vertices)
- Plumber man (787 vertices)
- Plumber woman (852 vertices)
- Policeman (805 vertices)
- Policewoman (731 vertices)
- Postman (857 vertices)
- Postwoman (903 vertices)
- Prehistoric man (640 vertices)
- Prehistoric woman (625 vertices)
- Race man (774 vertices)
- Race woman (777 vertices)
- Reporter man (631 vertices)
- Reporter woman (799 vertices)
- Scientist man (712 vertices)
- Scientist woman (762 vertices)
- Skater man (816 vertices)

- Skater woman (786 vertices)
- Skeleton (781 vertices)
- Ski man (759 vertices)
- Soldier man (919 vertices)
- Soldier woman (894 vertices)
- Sumo man (626 vertices)
- Sumo woman (603 vertices)
- Superhero man (680 vertices)
- Superhero woman (802 vertices)
- Swimsuit man (503 vertices)
- Swimsuit woman (583 vertices)
- Tennis man (674 vertices)
- Tenis woman (700 vertices)
- Viking man (908 vertices)
- Viking woman (794 vertices)
- Weightlifter man (619 vertices)
- Weightlifter woman (671 vertices)
- Wizard man (750 vertices)
- Yeti man (651 vertices)
- Yeti woman (741 vertices)
- Zombie man (664 vertices)
- Zombie woman (612 vertices)

## **Animations**

Boxer\_Idle, Boxer\_Punch, Death\_FallForwards, Death\_Slashed, Death\_Stabbed, Idle\_Crouching, Idle\_Generic, Idle\_HardDay, Idle\_Texting, Idle\_Waving, Kick\_LeftFoot, Ninja\_Run, Pirate Slash, Pirate\_DrawSword, Pirate\_Idle, Pirate\_Run. Pirate\_Stab. Pirate\_Walk, Punch\_LeftHand, Punc\_RightHand, Run\_InPlace, Running\_Jump, Standing\_Jump, Walk\_Crounching, Walk\_inPlace\_Female, Walk\_Male, Wizard\_Attack, Wizard\_Attack\_2, Wizzard\_Idle, Zombie\_Attack. Zombie\_Idle\_1, Zombie\_Idle\_2, Zombiew\_Run, Zombie\_Walk,

#### **Common Animation**

Blow Kiss, Cleaning Sweeping, Cleaning Sweeping-Idle, Cleaning Table, Drinking-Walking, Holding Bag-Walking, Holding Box-Walking, Idle-Sitting Bench, Idle Cleaning Sweeping, Idle Laying Down Resting, Laying\_Down-Laying\_Mobile\_Texting, Laying\_Down-Sleeping, Laying Down Resting, Laying Down Sleeping, Laying Mobile Texting, Laying Mobile Texting-Laying Sleeping, Make OK Gesture, Mobile Texting-Sitting, Sitting-Changing Channels, SItting-Idle, Sitting-Mobile, Sitting Bench Idle, Sitting Changing Channels, Sitting Drinking, Sitting Eating Bowl, Sitting Eating Plate, Sitting Floor Idle, Sitting Mobile Texting, Sitting Sofa Idle, Sitting Talking, Sitting\_Using\_Computer, Standing\_Dancing, Standing\_Idle, Standing\_Mobila\_Calling, Standing\_Shouting, Standing\_Singing, Standing Talking, Standing Texting, Thumbs Up Gesture, Vomiting, Walking, Walking-Holding Bag, Walking-Holding Box, Walking-Holding Drink, Walking-Idle, Walking Drinking, Walking Holding Box, Walking Holding Drink, Walking Mobile Talking, Walking Mobile Texting, Walking Talking

### **Textures**

"It's not perfect, but it's ours." We are using one big atlas texture and one material for all our meshes. It's great for speed - or so they say :))

There are two versions of skin textures but you can create your own atlas texture using any graphic tool or our **Atlas Generator** 



#### Left column is reserved for transparent colors.

#### TRANSPARENT VALUES

| 1<br>SKIN<br>DARKEST   | 2<br>SKIN<br>DARK   | 3<br>SKIN<br>MEDIUM     | 4<br>SKIN             | 5<br>SKIN<br>LIGHT       | G<br>SKIN<br>LIGHTEST    | 7<br>SKIN<br>WHITE       | 8<br>TRANSPAREN<br>RED    |
|------------------------|---------------------|-------------------------|-----------------------|--------------------------|--------------------------|--------------------------|---------------------------|
| 9<br>Brown<br>Darkest  | 10<br>BROWN<br>DARK | 11<br>BROWN<br>MEDIUM   | 12<br>BROWN           | 13<br>Brown<br>Light     | 14<br>BROWN<br>LIGHTEST  | 15<br>Brown<br>White     | 16<br>TRANSPAREN<br>BROWN |
| 17<br>GREY<br>DARKEST  | 18<br>GREY<br>DARK  | 19<br>GREY<br>MEDIUM    | 20<br>GREY            | 21<br>GREY<br>LIGHT      | 22<br>Grey<br>Lightest   | 28<br>Grey<br>White      | 24<br>TRANSPAREN<br>GREY  |
| 25<br>RED<br>Darkest   | 26<br>RED<br>DARK   | 27<br>RED<br>MEDIUM     | 28<br>ORANGE          | 29<br>ORANGE<br>LIGHT    | AETTOM<br>80             | Merrom<br>Su             | 32<br>TRANSPAREN<br>RED   |
| 33<br>GREEN<br>DARKEST | 34<br>GREEN<br>DARK | 35<br>GREEN<br>MEDIUM   | 36<br>GREEN           | 37<br>GREEN<br>LIGHT     | SB<br>GREEN<br>LIGHUEST  | 89<br>GREEN<br>WHITE     | 40<br>Transparen<br>Green |
| 41<br>BLUE<br>DARKEST  | 42<br>BLUE<br>DARK  | 43<br>BLUE<br>MEDIUM    | 44<br>BLUE            | 45<br>BLUE<br>LIGHT      | 416<br>BLUE<br>LIGHTEST  | 477<br>BLUE<br>WHITE     | 48<br>TRANSPAREN<br>BLUE  |
| 49<br>PINK<br>DARKEST  | 50<br>PINK<br>DARK  | 51<br>PINK<br>MEDIUM    | 52<br>PINK            | 58<br>PINK<br>UGHT       | 54<br>EMISSION<br>BLUE   | 55<br>Emission<br>Purple | 56<br>TRANSPAREN<br>WHITE |
| 57<br>Black            | 53<br>White         | 59<br>EMISSION<br>WHITE | 60<br>EMISSION<br>RED | 61<br>EMISSION<br>ORANGE | 62<br>EMISSION<br>YELLOW | 53<br>EMISSION<br>GREEN  | 64<br>GLASS               |



EMISSION VALUES

Bottom part for emission ones.

## Wander Script

Hello and welcome to the tutorial on how to use our new wander script in our packs

#### **About**

The wander script is a solution for quick and easy drag and drops AI, we have taken the idea of AI (Artificial Intelligence) and turned it into a more manageable script, it lets you decide which Characters you want at the top of your food chain and gives you the flexibility to use them in your own world.

Before you go ahead and make a killer army of bunny rabbits, I suggest you look at this guide and see what each part of the Wander Script does, so you don't get lost.



#### How does it work?

So, let's move onto the test scene where we will be able to talk you through some of the awesome new features of the script such as the new NavMesh option, allowing you to make the animals walk across your terrain. So for navmesh to work, all you simply need to do is make the objects that you want the animals to be able to walk on set to static, this will allow you to navmesh bake onto the object and allow the animals to walk around. (If you are uncertain how to create a NavMesh please refer to Unity Documentation).

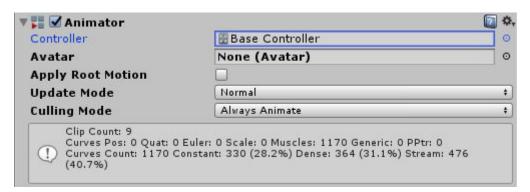
For this feature to work, you will also need to make sure that the characters you want to walk along the terrain have a navmesh Agent component attached to them. The script also relies on having a character controller as a backup, so you will not be able to delete this component.

#### **Errors Section**

#### Section 1.

Error ("Character name" has no animator controller, make sure you put one in to allow the character to walk. See documentation for more details (1).

To fix this error simply drop the base controller into the controller section of the Animator.



#### MORE INFORMATION

Animator Controllers - An animator controller acts as a brain for all the animations, it tells which animation to play using what's called a "Parameter".

There are 4 types of parameters that you can use in an Animator Controller, but we are only going to focus on a "boolean parameter" while using the Wander Script.

A boolean parameter can either be **True** or **false** 

If you click on any of these white lines you will see that each line has a "condition", a condition is a place for you to use a "Parameter" to tell that transition to happen or not.

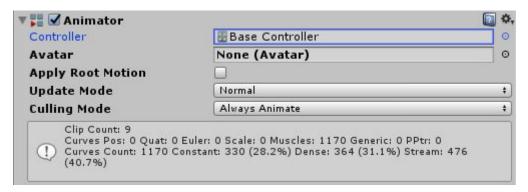
If we look at the walk, for example, we can see that the transition going away from Idle has a condition with the parameter "isWalking" on it. It is also set to true because we want this transition to only to happen when our parameter "isWalking" is set to true.

So now you know what an animator controller is, did you know that you can create what's called an "Animator Override Controller", this will let you keep all the logic of the base controller but simply swap the animations you want to see. Give it a try!

#### Section 2.

Error("Character name" has no avatar, make sure you put one in to allow the character to animate (2)

To fix this error simply drop the main\_Rig Avatar into the avatar section on the animator.



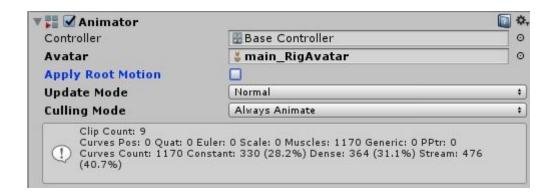
#### MORE INFORMATION

Each "Humanoid" Rig will need an avatar to be able to animate, this avatar identifies which rig it belongs to. We have already set up all the characters in this pack to use the same avatar, this avatar belongs to a rig called the main\_Rig. This avatar will be the one you are looking for if you want to retarget animation.

#### Section 3.

Error("Character name" has root motion applied, consider turning this off as our script will deactivate this on the play as we do not use it (3))

To stop getting this error you will simply need to turn this tick box off.



#### MORE INFORMATION

We do not use root motion animation in our scripts or animations, so please make sure that if you want to add any new animations then you make sure they are animating on the spot

#### Section 4.

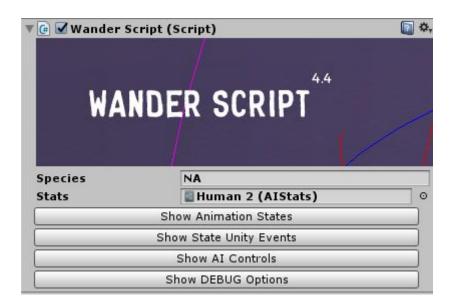
Error("Character name" has no idle or movement states, make sure you fill these out. See documentation for more details (4)

To fix this you will need to fill out the states located under the "Show animation States" tab in the inspector. See below if you need more information.

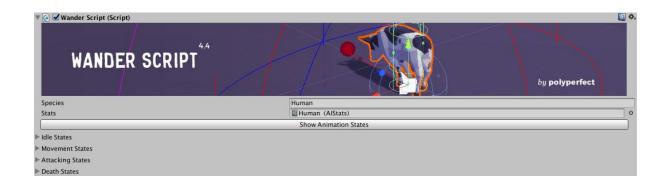
#### Section 5.

Error(has no AI stats, make sure you assign one to the Wander Script. See documentation for more details (5)

To fix this make sure the Stats section is not empty! Check below to make your own.



#### **States**



#### **Idle States**

#### SIZE

How many idle states this animal has, changing the layer weights later will allow you to have more generic idles play more often and less generic playing only every now and again.

#### **STATE NAME**

Name your state, call it whatever it is. So eating, standing, peeing, whatever the animal has

#### **ANIMATION BOOL**

The name of the Boolean set up in the animator. Read Section 1.) for more information.

#### **MIN STATE TIME**

The length of time that the animal is has to stay in that.

#### **MAX STATE TIME**

The length of time that the animal is allowed to stay in that state.

#### STATE WEIGHT

This is the weight of this state being chosen over another, for instance, if the layer weight of eating is set to 2, the layer weight of standing was set to 1. Then because the weighting is higher on eating, it will most of the time choose to eat over choose to stand.

#### **Movement States**

#### SIZE

How many movements states the animal has, eg. Running, walking, Sprinting, Crawling, Hopping.

#### **STATE NAME**

Name your state.

#### **ANIMATION BOOL**

The name of the Boolean set up in the animator. Read Section 1.) for more information.

#### **MAX STATE TIME**

The length of time that this movement can happen for.

#### **MOVE SPEED**

The speed at which the character moves when in this state, e.g.running should be faster than walking.

#### **TURN SPEED**

The speed at which the character can turn when in this state

#### **Attacking States**

#### **SIZE**

How many Attacking states the character have.

#### **STATE NAME**

Name your state.

#### **ANIMATION BOOL**

The name of the Boolean set up in the animator. Read Section 1.) for more information.

Error(,, this character will not be able to attack. See documentation for more details (4)) To fix, read below.

#### **Death states**

#### SIZE

How many Death states the Character has.

#### **STATE NAME**

Name your state.

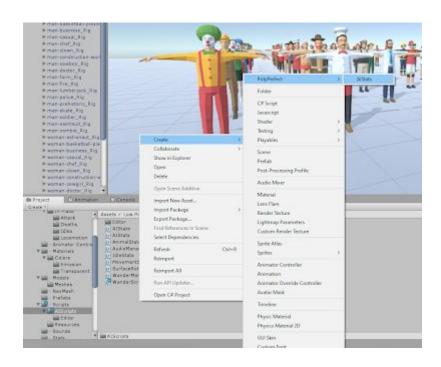
#### **ANIMATION BOOL**

The name of the Boolean set up in the animator. Read Section 1.) for more information.

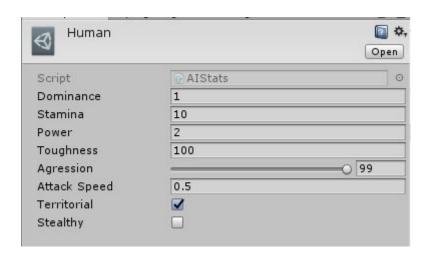
#### **Stats**

Stats are what make each AI unique, they give each character the ability to have advantages over other Characters. They come in a handy asset file so you do not need to set this up over and over again for each character.

To create a new Stats simply right-click in the Assets folder, click create/Polyperfect/AIStats.



This will make you a new file in the project called "New AI Stats", if you click on this file you will see some values that you can edit in the inspector. Below is a description of what each of these values means.



#### **SPECIES**

This is nice and simple, this simply indicates what species the animal is.

#### **WANDER ZONE**

The Wander Zone indicates how far the animal is allowed to wander from its origin point, set this as high as you need to if you want the animal to be able to travel across your world

#### DOMINANCE

This is the first part of our clever system, this indicates how high up the food chain the animal is. This can be changed to your liking, therefore allowing you to create a killer rabbit army.

#### **AWARENESS**

This range is how far this animal can sense a predator, for instance, if there is a bear lurking nearby, a deer will run off if it sees it in its awareness range. This will stick to the animal as it travels around its wander radius.

#### **SCENT**

This is how far an animal can sense its prey, this will stick the position of the animal as it travels around its wander radius.

#### **STAMINA**

his is how far the animal can run before it gets tired. Let's hope it's up high for those killer rabbits to not catch them.

#### **POWER**

This is the attack of an animal, the higher this number, the more damage it will do to another animal when it attacks.

#### **TOUGHNESS**

This means the animals health, setting this higher will allow the more powerful animals to not damage this one as much.

#### **AGGRESSION**

This is simply the chance that this animal will attack another animal, setting this to 100% WILL MEAN IT ATTACKS EVERYTHING. 50% will mean it might attack half the time.

#### **TERRITORIAL**

This means that this animal will attack another animal of the same species, allowing the king of the forest to stay the king.

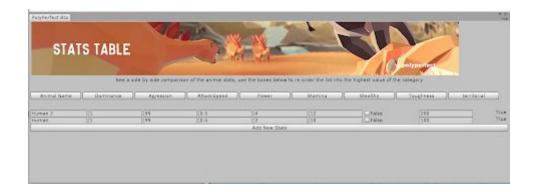
#### **STEALTHY**

These animals cannot be detected by another animal, great for spiders and snakes which are less obvious.

## Extra Handy Scripts

#### **Stats Table**

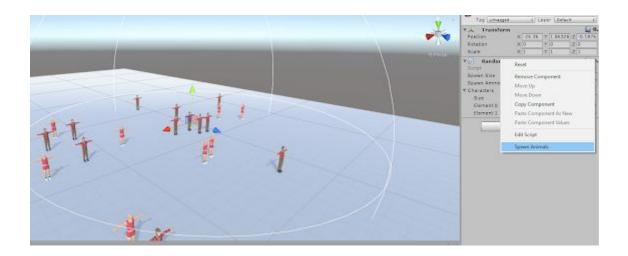
View your character stats side by side with the **Stats Table**! This table will show you a side by side comparison of all the stats you have in your project so that you can balance how your characters behave. To view this, simply look at the top of the project under **PolyPerfect/Stats Table** to open.



#### **Random Character Placer**

There is also some extra handy script in the project that can help with randomly placing characters around your terrains, this is called **RandomCharacterPlacer**.

To use it, simply add this script to a gameobject in the scene, then change the spawning size, choose how many you want to spawn. Then drag the characters you want to spawn into the list. To spawn the Characters, simply right click on the script and press "**Spawn Characters**"



#### **Wander Manager**

Another handy script is called the **Wander Manager**, add this script to a gameobject in the scene and you will be able to set all the characters in your scene to peaceful. During play mode, you will also be able to press the nuke button and watch all the characters die.

Make sure you only ever have one wander manager script in your scene or things will break.



#### **Anim Speed**

**AnimSpeed** is a cool little script you can add to a character that will speed up or slow down all the animations in a character by a random amount. This is useful to get the characters walking at different speeds.

To use it, simply put the script on the same object that has an animator on it.

#### **PolyMorph**

This is a little script that will help you bring some more diversity to your characters.

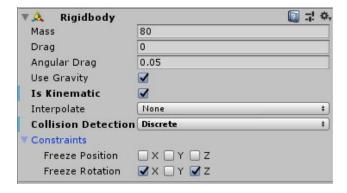
- Drag and drop it onto the character you want to modify.
- Make a new Avatar Mask in the project window
- Make sure the mask is set up to reference the MainRig avatar
- Turn on the bones you want to be modified
- Make sure morph on start is turned on if you want to use it

Press play and watch the fun happen!

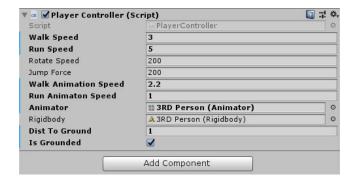
#### **PlayerController**

This small script will allow you to use the characters as a third person controller, you can run around the scene as one of our characters.

- Add the Player Controller to the character you want to use
- Add a Camera as a child of the character you want to use and set the desired position and rotation
- Add a capsule collider to the player and set it up so that the bottom of the collider is at the feet of the character
- Set the RigidBodies to look like this



- Add the 3RD Person Character Controller to the animator
- Assign the 3RD Person Animator to the script
- Assign the Rigidbody to the script
- Set the desired walk, run speeds, and rotate speeds
- The script should look something like this when you are finished setting up



Press Play and you will be able to walk around the scene using WASD and rotate the camera using the mouse.

#### **Atlas Texture Generator**

This handy little script will let you make new <u>atlas textures</u> quickly, this will let you edit the color of the character straight inside of unity.

- Locate the Atlas Texture Generator prefab inside of the polyperfect scripts folder
- Drag this into the scene
- will make a new atlas texture for you in the main assets folder called Test
- Apply this to material and you have your new 8X8 atlas texture

# Mixamo Animations & our Human Rigs

Please, take a look at this video tutorial: https://youtu.be/Or7aWyrMRzs

Or go to - https://www.mixamo.com/ sign up and explore all the animations that the website has to offer! Once you have found the animation that you want, simply click the download button. A window will pop up, make sure you set it up as follows;

Format - "FBX for Unity"

Skin - "Without Skin"

**Frames per second** - "Depends what you want but we normally use 24" **KeyFrame Reduction** - "Choose this option if you want some better performance but worse graphics"

Once downloaded and into Unity, we need to set a few things up for them to work with our rigs.

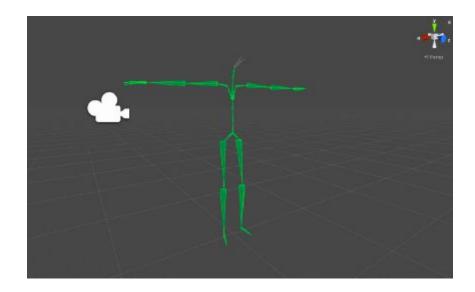
Click on the asset in the project and then press the Rig Tab in the middle, choose:

**Animation Type - Humanoid** 

Avatar Definition - Create from this model

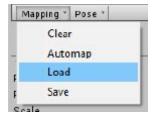
Once this is done go into the **Configure Tab.** 

Move the bones until they are in a T - Pose, it should look like below



Or go to - https://www.mixamo.com/ sign up and explore all the animations that the website has to offer! Once you have found the animation that you want, simply click the download button.

A window will pop up, make sure you set it up as follows;



Once you have done this, click the Animation tab. There are lots of options here for the animations you just imported which can be changed to fit your needs, don't forget to press loop if you want a looping animation.

At the bottom of the Animation Window will be a Preview window with a tiny little Character Icon in the bottom right of it. If you click this icon you will be able to choose a Gameobject to preview. Preview any of the prefabs of the characters in the project and watch your new animation go!

#### To make it work on the character during PlayMode.

- Drag the \_MainRig model into the scene.
- Open the hierarchy for this model and navigate to the "Geometry" gameobject.
- Turn off the meshes you don't want and turn on the one you do.
- Right-click in the project window and "Create/Animator Controller"
- Double click the asset you just made and the Animator will open
- Drag and drop the animation you downloaded from Mixamo in this new window
- Click on the \_MainRig model and assign the Animator Controller you just made into the Controller slot of the animator.
- Press play and you have Mixamo animations working!

## Gizmos

if you turn these on then you will get three colored rings that go around the animal.

| Red     |  |  |
|---------|--|--|
| Scent   |  |  |
|         |  |  |
| Blue    |  |  |
|         |  |  |
| Wander  |  |  |
|         |  |  |
| Pink    |  |  |
| 1 11111 |  |  |

**Awareness** 

If you would like a visual indication with a little icon above each circle, please drag the Gizmos folder next to the assets folder in the project window.

## **FAQ**

#### Do you pack work in Unity URP?

All of our packs are made with Unity Standart Shaders so it's quite easy to convert them to the URP. Check this **tutorial**