

Make Human – to - Mixamo – to - FBX2GG

To make custom character models to use in Game Guru.

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and Rafhalzer

Edited by – Len the man

This guide will describe the basic processes to get a character from MakeHuman, thru Mixamo animations, and into the FBX2GG program for custom characters.

You will need:

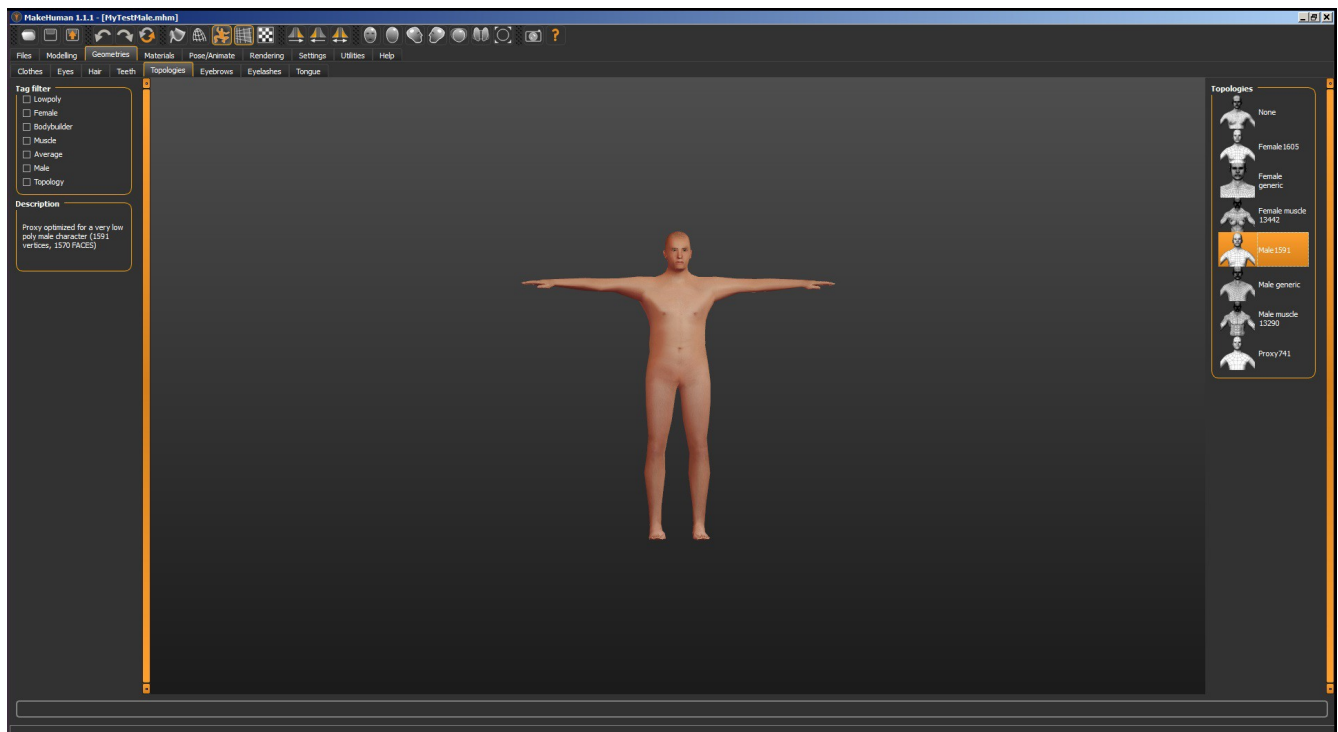
- (1) Make Human program
- (2) A Mixamo Account for adding animations
- (3) The FBX2GG program

You will **not** need:

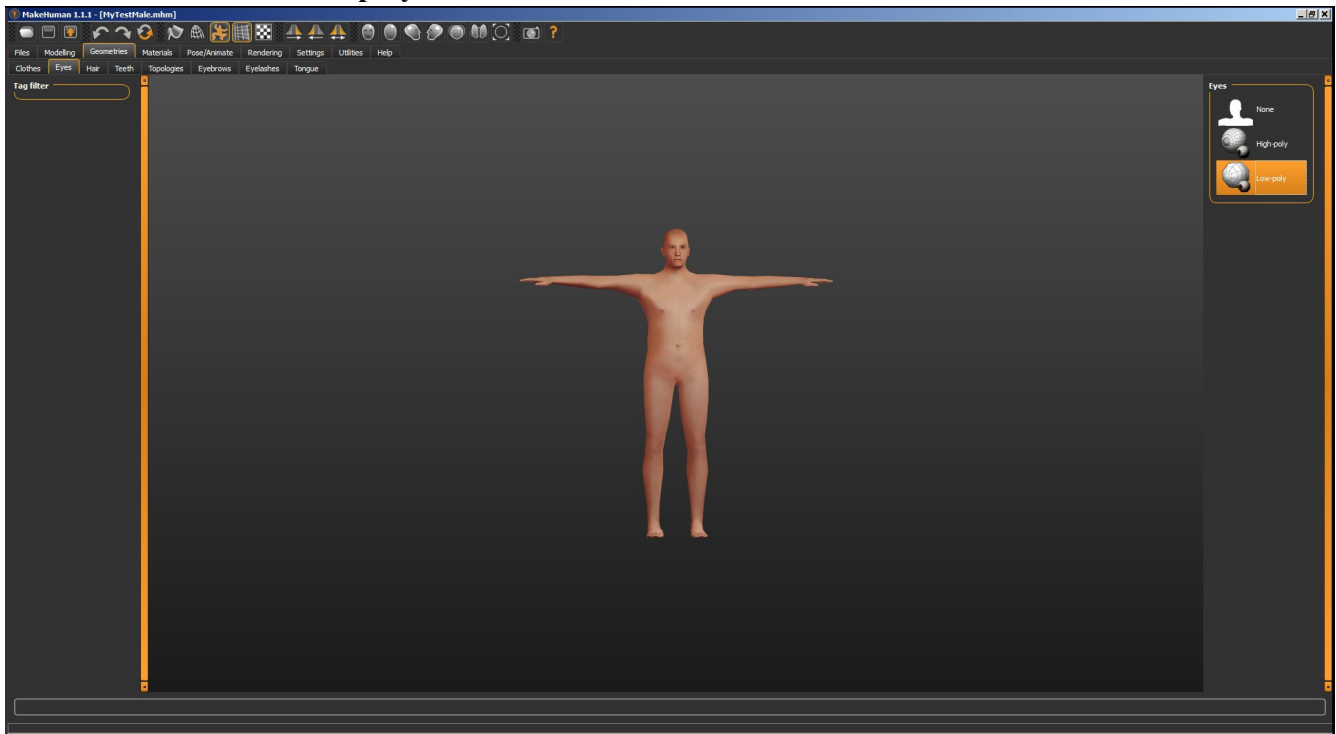
Any 3d programs for this (like Blender).

Open **MakeHuman** and make you character as you please.
Make sure you have the following setting when complete.

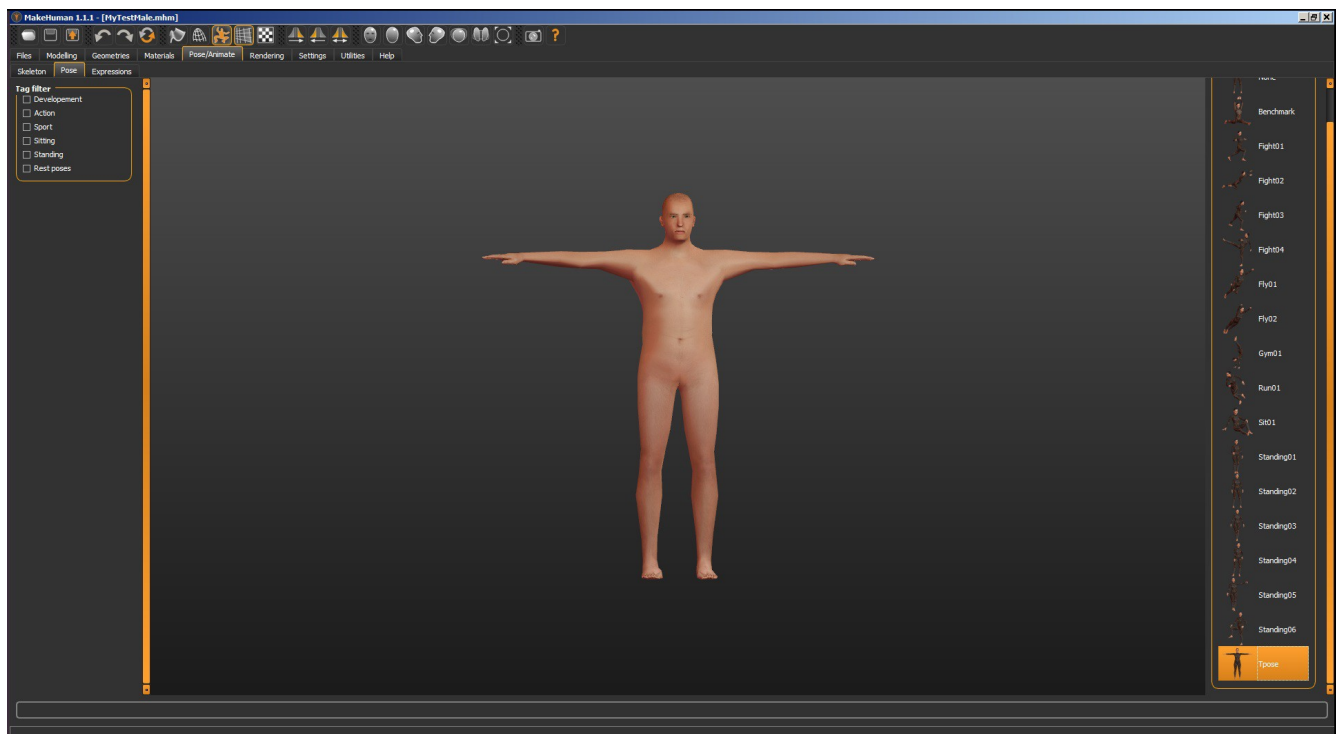
Step 1 – Click on the **geometries tab** near the top left corner of the window, and then look to the right of the window where the list shows up by the name topologies, and click on **Male1591**.



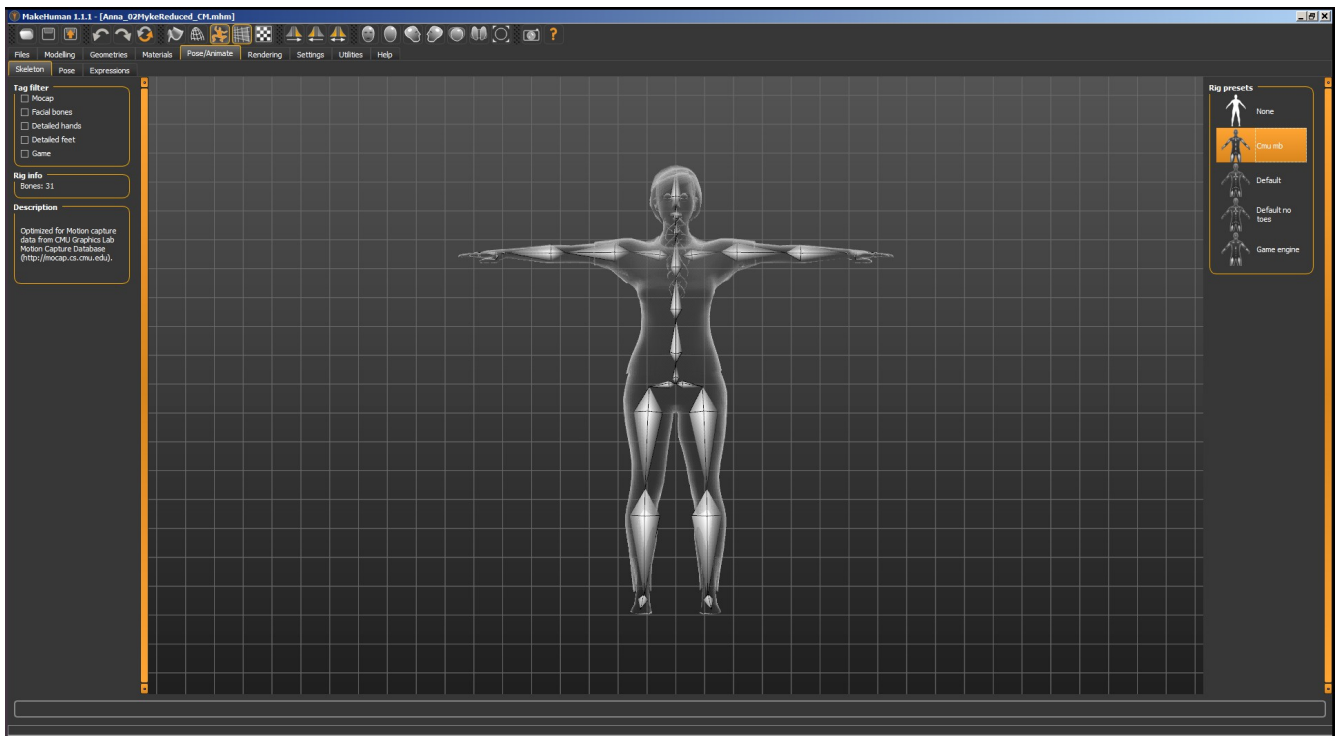
Step 2 – Near the top left of the window, click on “Eyes”, and then look to the right of the screen and click the item listed as **low-poly**.



Step 3 – A few tabs over from the top left of the window you will see the tab labeled **pose / animate** and click on it. You can look further to the left and click the next lower row of tabs on the one labeled “**Pose**”. You can then see on the right of the window the list of poses. You need to scroll down the slider and pick the one at the bottom labeled “**Tpose**”.



Step 4 – You should then look to the upper left side of the window and click on “**skeleton**”. You can then look to the right of the window and click on the item labeled “**Cmu mb**”.



Using these settings shown above will prevent you from having to mess with it in a 3d model program. This model comes in at 13006 polys.

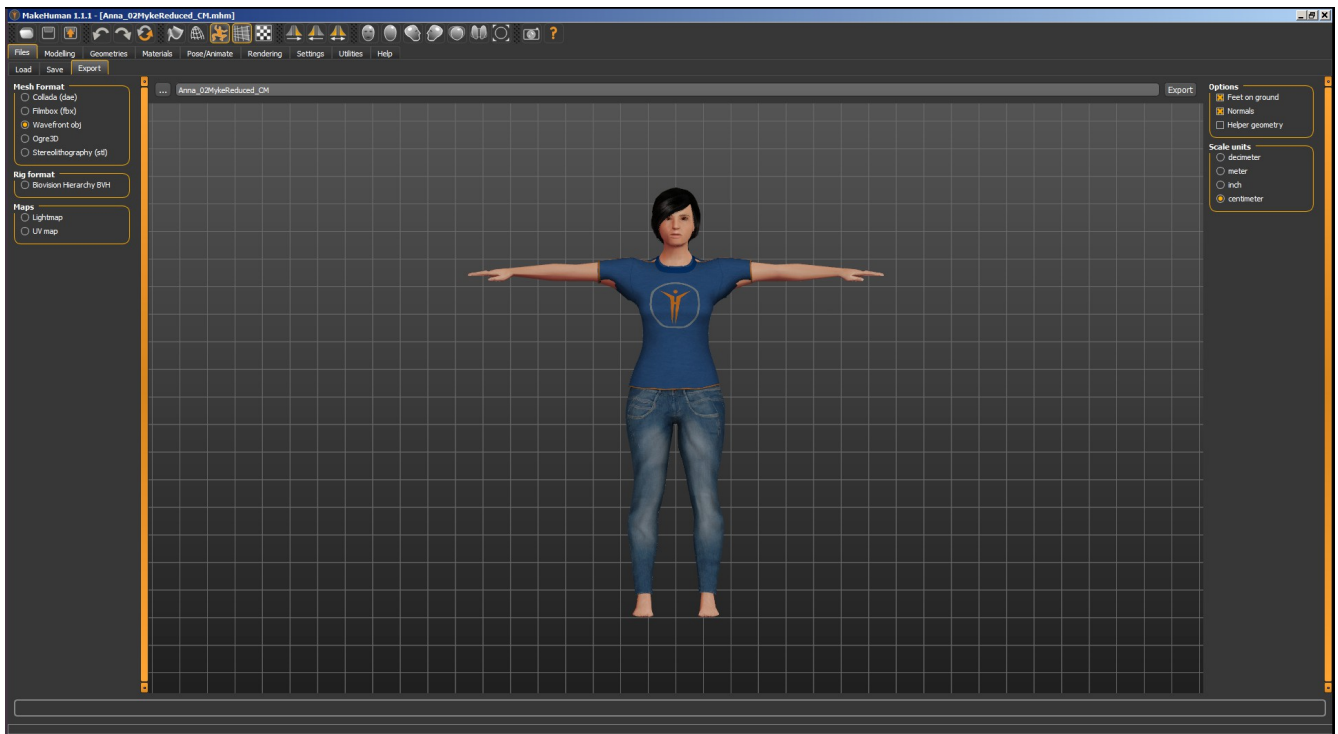
Step 5 - Export the model by clicking the following items with these settings.

Look to the left to click “**files**”, then click the **export tab**. On the left side of the window where it has the list labeled “**Mesh Format**”, then click “**wavefront obj**”.

You should then look to the right of the window under the list labeled “**Options**” and make sure the **top 2 are checked**, which should be “**Feet on ground**” and “**Normals**”.

You should also see the lower list labeled “**Scale units**” and click “centimeter”.

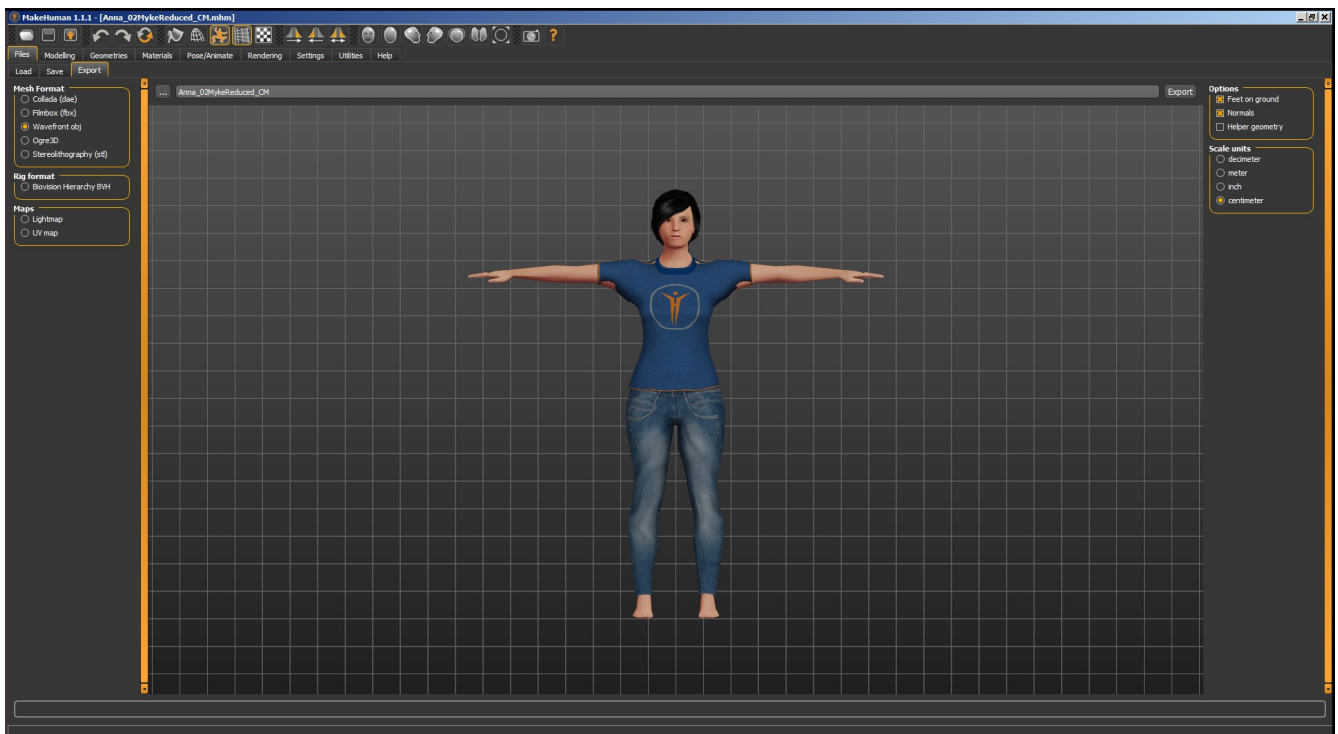
You can refer to the picture listed below as a reference.



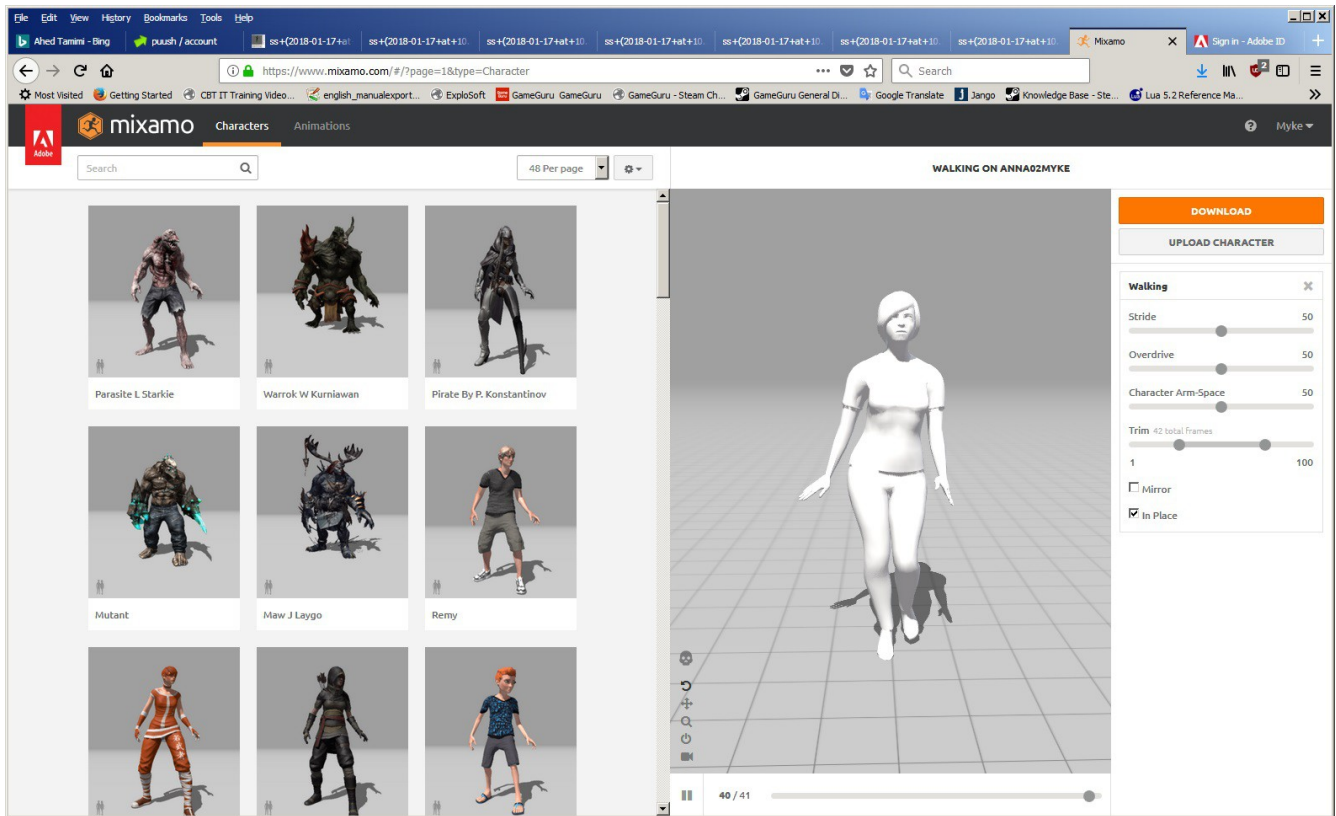
Step 6 - Log into **Mixamo**.

Drag your .obj file to the upload character screen.

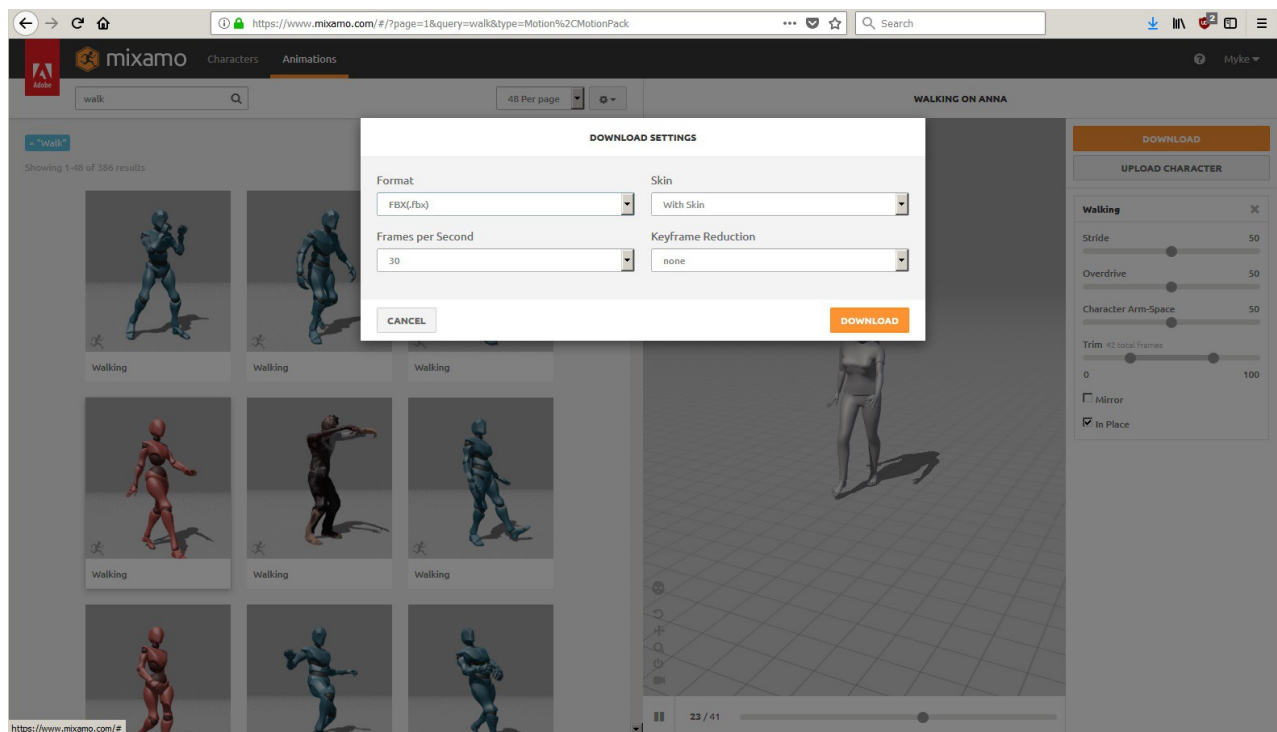
Set the auto rig settings as follows.



Apply your animations and keep them in place for standard character types.



Download 2 versions of the character, one with skin and one without skin. The one without skin is for the animation.



Making a Makehuman model to upload to Mixamo with skin included:

Makehuman exports to .obj, .mtl, and texture files.

You will need to modify the .mtl file first.

Makehuman exports the textures to the folder called "textures", which is within the exports folder. The texture files should be copied and put in the same folder as the .mtl and .obj files and not in the folder labeled "textures".

Open the .mtl file in a text editor (or you can use Notepad ++) and find the path to all texture files, for example:

```
map_Kd textures\short04_diffuse.png
```

There should be a few similar lines, and they all need to be changed.

You should modify it to the following:

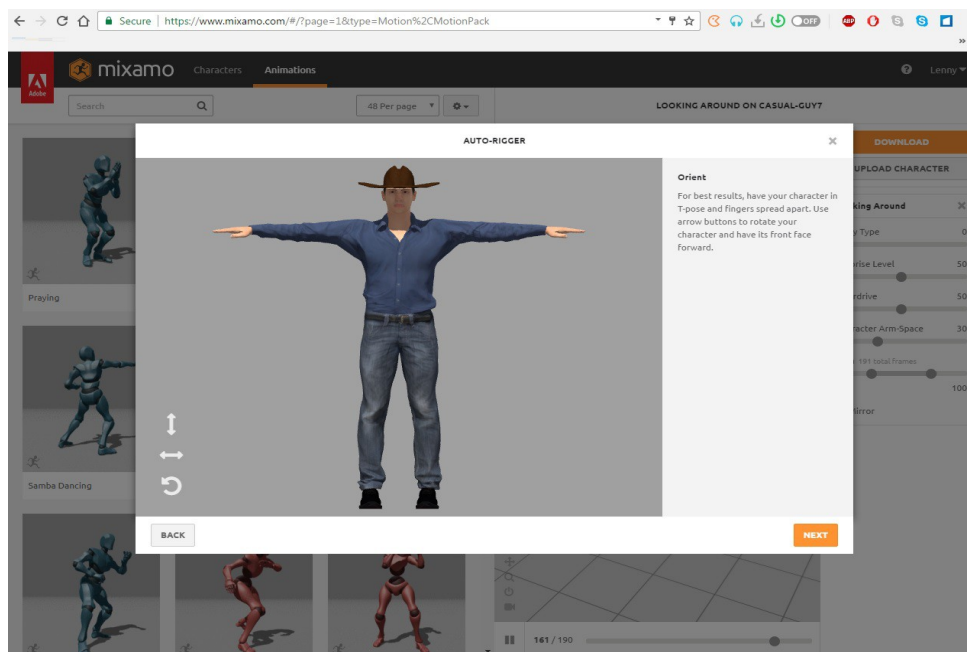
```
map_Kd short04_diffuse.png
```

Notice that you should **delete** the part in the middle, which is “textures\”.

Save the .mtl file and zip all files (.mtl, .obj, and all texture files). Make sure your zip file is in the export folder, and make sure it isn't in a subfolder.

Now load the .zip file into **Mixamo**.

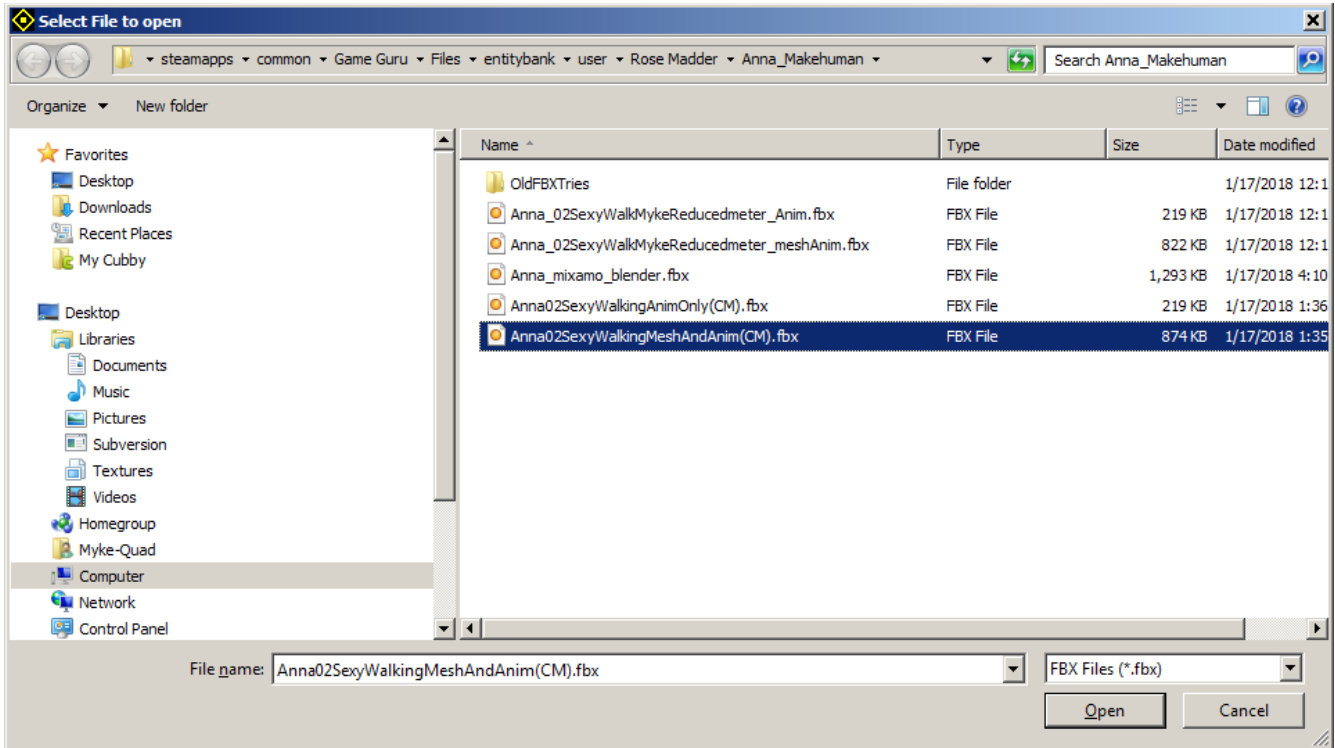
If it loads with all the skins correctly, it should look like the cowboy model by Len the man:



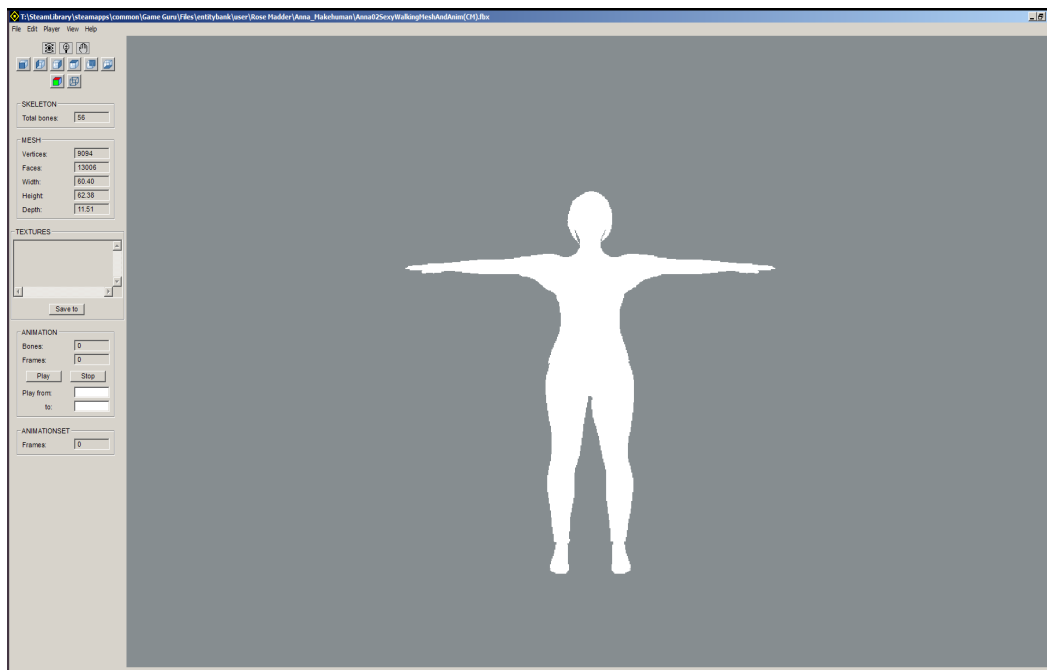
When each one is done (with and without skin), rename it so the next will not over write it.

Next, open FBX2GG.

Open the FBX file with the mesh.

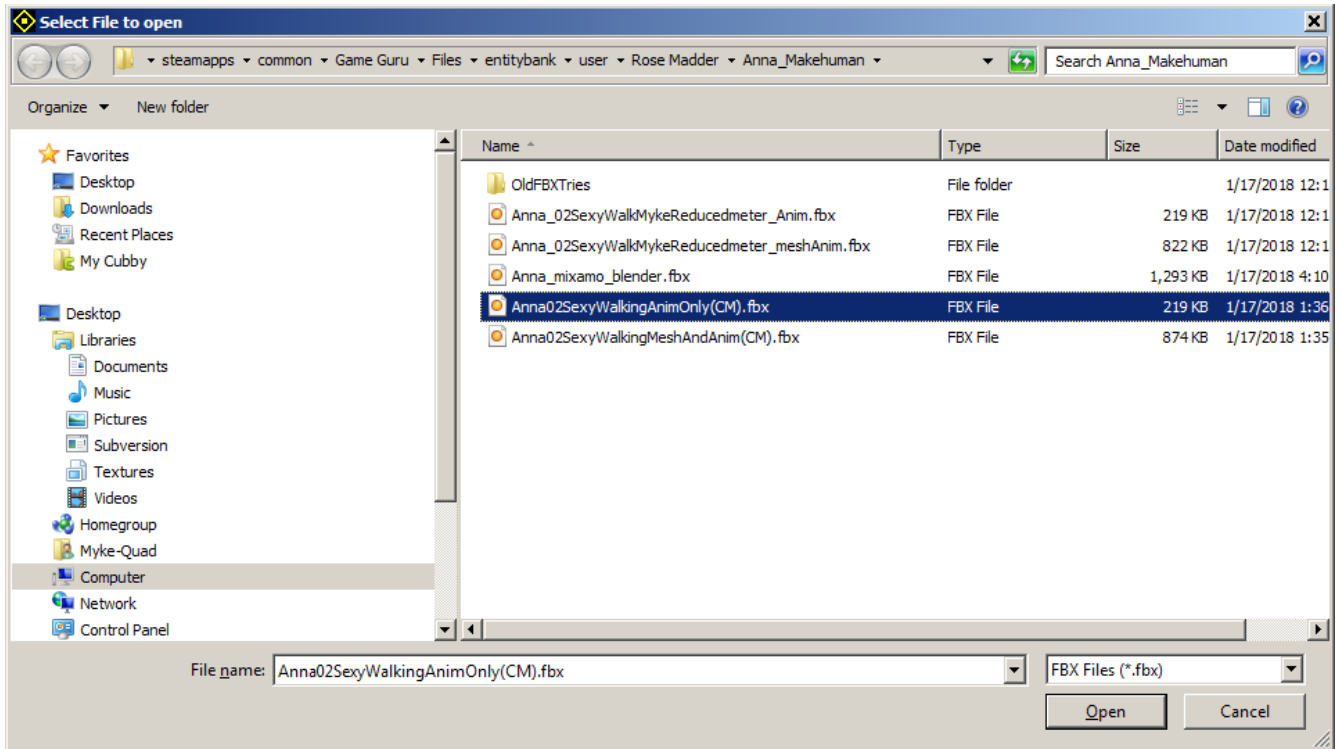


It should look like this. Don't worry that the textures are not showing. It is not important right now.

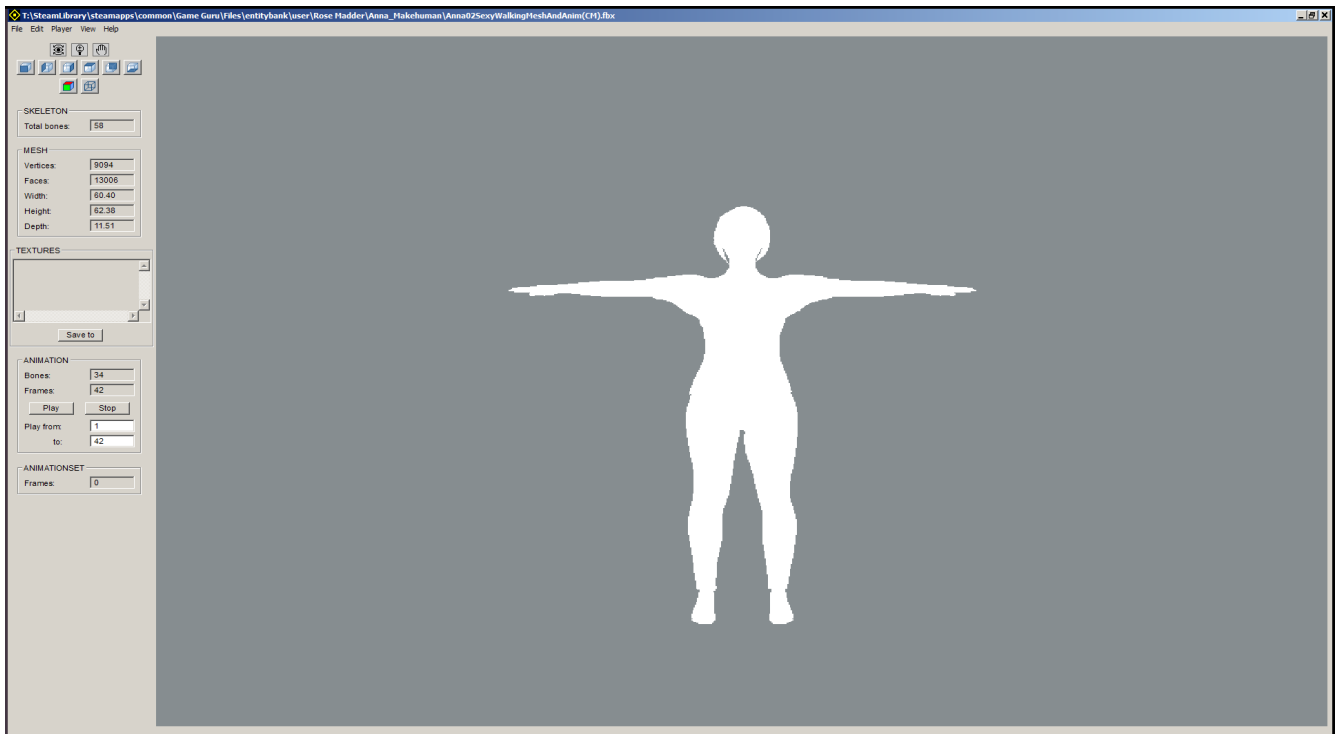


Press <edit> and then <prepare skeleton for FBX animations>.

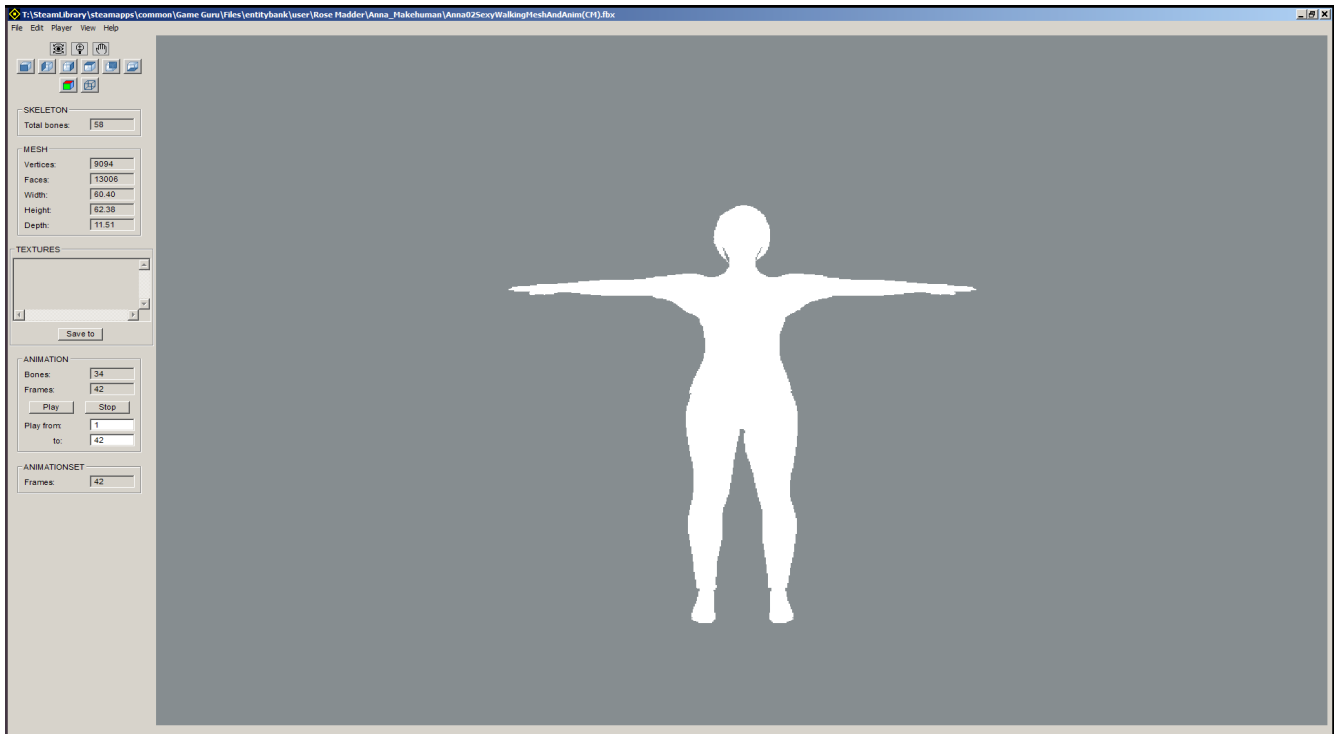
Press <edit> then <Import FBX animations> and then choose the FBX without the skin.



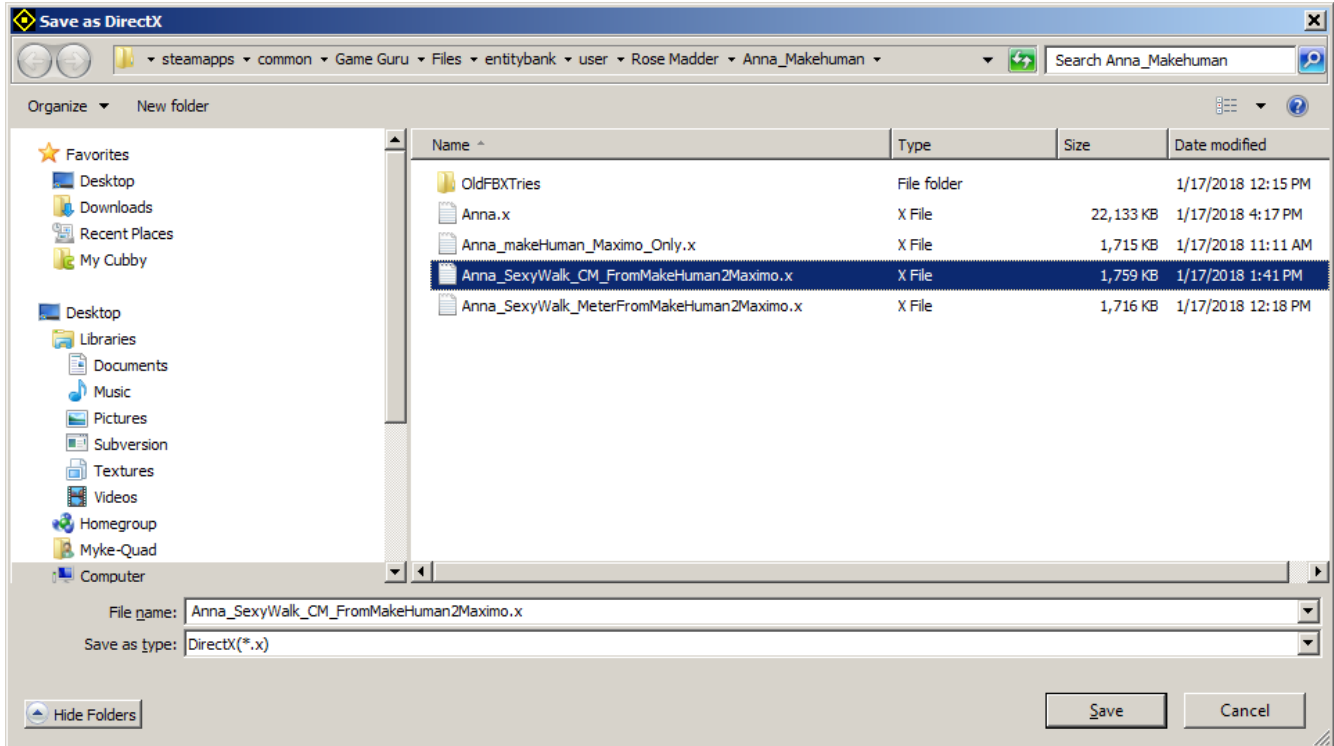
It will look like this.



Press <edit> and then <Add FBX animation to animation set>.



Press <File> and then <save as DirectX with animation set>.



Press **Save** button to export it with animations.

Place the X file, textures all in the same folder.

Modify a FPE file like the one shown below. Changing the names of the mesh and textures to match your new character. It should look something like this.

+ Code Snippet

```
1 ;header
2 desc = AnnaSexyWalk_PBR
3
4
5 ;visualinfo
6 textured = young_lightskinned_female_diffuse2.png
7 effect = effectbank\reloaded\character_basic.fx
8 castshadow = 0
9
10 ;ai
11 aimain = ai_soldier.lua
12
13 ;orientation
14 model = Anna_SexyWalk_CM_FromMakeHuman2Maximo.X
15 offx = 0
16 offy = 0
17 offz = 0
18 rotx = 0
19 roty = 0
20 rotz = 0
21 defaultstatic = 0
22 materialindex = 0
23 scale = 100
24
25 ;identity details
26 ischaracter = 1
27 hasweapon =
28 isobjective = 0
29 cantakeweapon = 1
30 rateoffire = 100
31 ragdoll = 1
32 endcollision = 0
33
34 ;headlimbs
35 headlimbs = 32,54
36
37 ;statistics
38 strength = 100
39 explodable = 0
40 debrisshape = 0
41
42 ;thirdperson
43 jumpmodifier = 100
44 jumpvaulttrim = 1
45
46 ;anim
47 animmax = 5
48 playanimineditor = 1
49 anim0 = 0,1 ;idle
50 anim1 = 1,42 ;move
51 anim2 = 1,42 ;kick
52 anim3 = 1,42 ;hurt
53 anim4 = 1,42 ;reload
```

If you wish to copy this FPE, you can copy, cut and paste the one listed below or on the next page.

```
;header
desc      = AnnaSexyWalk_PBR

;visualinfo
textured  = young_lightskinned_female_diffuse2.png
effect    = effectbank\reloaded\character_basic.fx
castshadow = 0

;ai
aimain    = ai_soldier.lua

;orientation
model     = Anna_SexyWalk_CM_FromMakeHuman2Maximo.X
offx      = 0
offy      = 0
offz      = 0
rotx      = 0
roty      = 0
rotz      = 0
defaultstatic = 0
materialindex = 0
scale     = 100

;identity details
ischaracter = 1
hasweapon   =
isobjective = 0
cantakeweapon = 1
rateoffire  = 100
ragdoll     = 1
endcollision = 0

;headlimbs
headlimbs  = 32,54

;statistics
strength   = 100
explodable = 0
debrisshape = 0

;thirdperson
jumpmodifier = 100
jumpvaulttrim = 1

;anim
animmax     = 5
playanimineditor = 1
anim0       = 0,1 ;idle
anim1       = 1,42 ;move
anim2       = 1,42 ;kick
anim3       = 1,42 ;hurt
anim4       = 1,42 ;reload
```

Save the FPE file and test the character in Game Guru.
You will need to script it for your needs.

Remember that you should use Notepad ++ or similar software to work on an FPE file like this.

To get a better view of some of the pictures and diagrams you may wish to visit the forum in order to click on the pictures. These instruction, pictures, and diagrams are located at the following link:

<https://forum.game-guru.com/thread/219217>