EpicBendyRig Update 1.5

Documentation

Many thanks to @Dgards, @DvqJackson_2, @NJ Central

Contents

About

Ever since GoldenNinjaBen blessed us with the EpicBendyRig, we have sought to try and improve every aspect of the rig to liken it more towards the show.

With this update of the EpicBendyRig, the rig has been completely overhauled, with over 60+ features added to make it easier to animate and use. A lot of time and effort has gone into this, so we hope you do appreciate the new features.

New Feature List

The amount of new features in the updated rig is huge, because of that, I have most likely missed a few here. Here is a list of them all.

- Overhauled Face Rig
- Bone controllers to animate every part of the face (***Mouth***, ***Eyes***, ***Dimples***, ***Eye Makeup*** (for ***P.I.X.A.L*** & ***Sora***), ***Eyebrows, Eyelashes, Pupils***)
- Bone controller to hide parts of the eye
- Different pupil shapes! Some scenes in Ninjago temporarily use different shapes for the pupil, so this has been included
- Bone controller for eyelines
- Lipstick toggle
- Eye Makeup toggle
- Eye glow
- Eye switch (for ***ZANE or P.I.X.A.L***)
- Colour switches for ***Mouth, Eyes, Dimples, Eye Makeup, Eyelashes, Eyeline, Teeth, Lipstick, Tongue, Pupils, Outer Eye, Head…***
- **IK/FK controls** for the **arms** and **legs** (eg. controls to switch from **IK** -> **FK** and from **FK** -> **IK**)
- Controls to switch between the size of the rig (Between ***Adult***, and ***child/smaller*** sizes) (And yes we will do the Avatar Long legs later 😊)
- Mouth shapes flip between happy or sad expressions
- Another Center of mass bone (why was this added…)
- Bone controllers to rotate or scale nearly every part of the face
- Alternative Eyelash and Eyeline shapes

How To Use
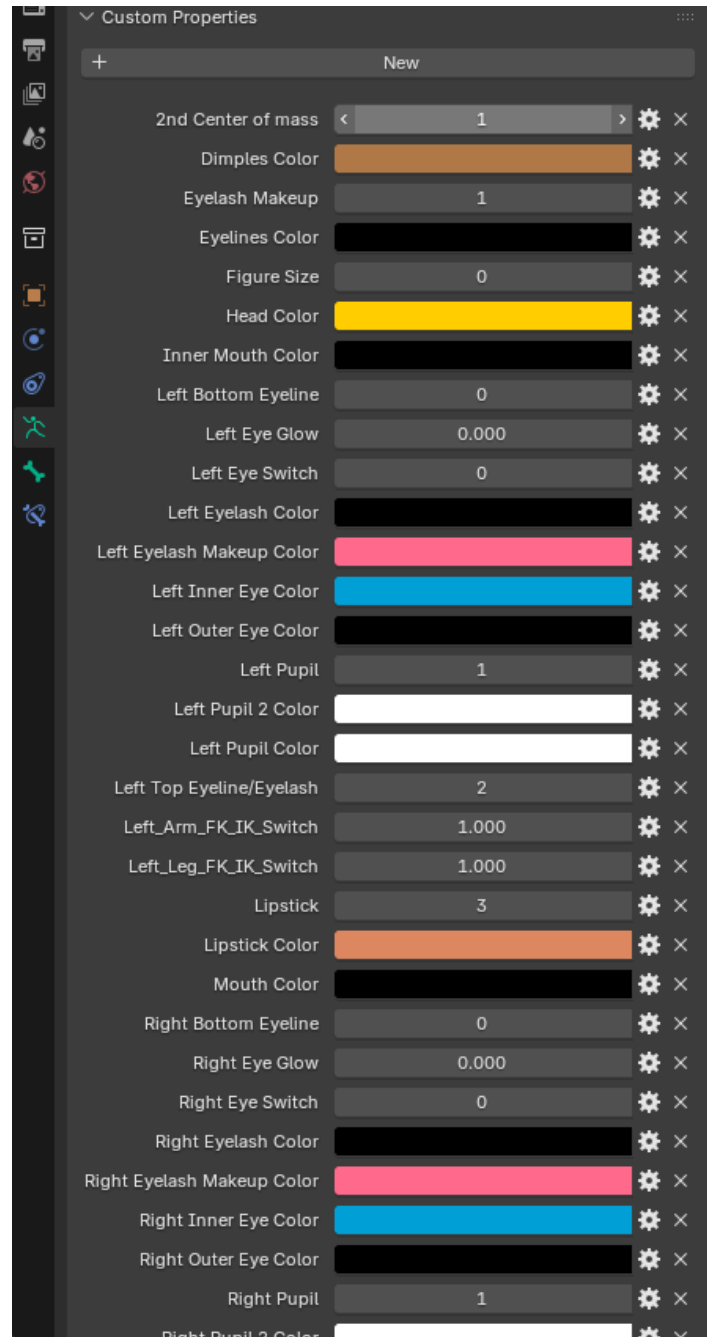
EBR Rig Controls

IK/FK Snap Controls

ArmR FKIK Snap	ArmR IKFK Snap
ArmL FKIK Snap	ArmL IKFK Snap
LegR FKIK Snap	LegR IKFK Snap
LegL FKIK Snap	LegL IKFK Snap
MLegR FKIK Snap	MLegR IKFK Snap
MLegL FKIK Snap	MLegL IKFK Snap
SLegR FKIK Snap	SLegR IKFK Snap
SLegL FKIK Snap	SLegL IKFK Snap
Master Bone Snap	

IK/FK Blend Controls

▼ Arm Controls

ArmL IK-FK	1.000
ArmR IK-FK	1.000

▼ Leg Controls

LegL IK-FK	1.000
LegR IK-FK	1.000

▼ Additional Controls

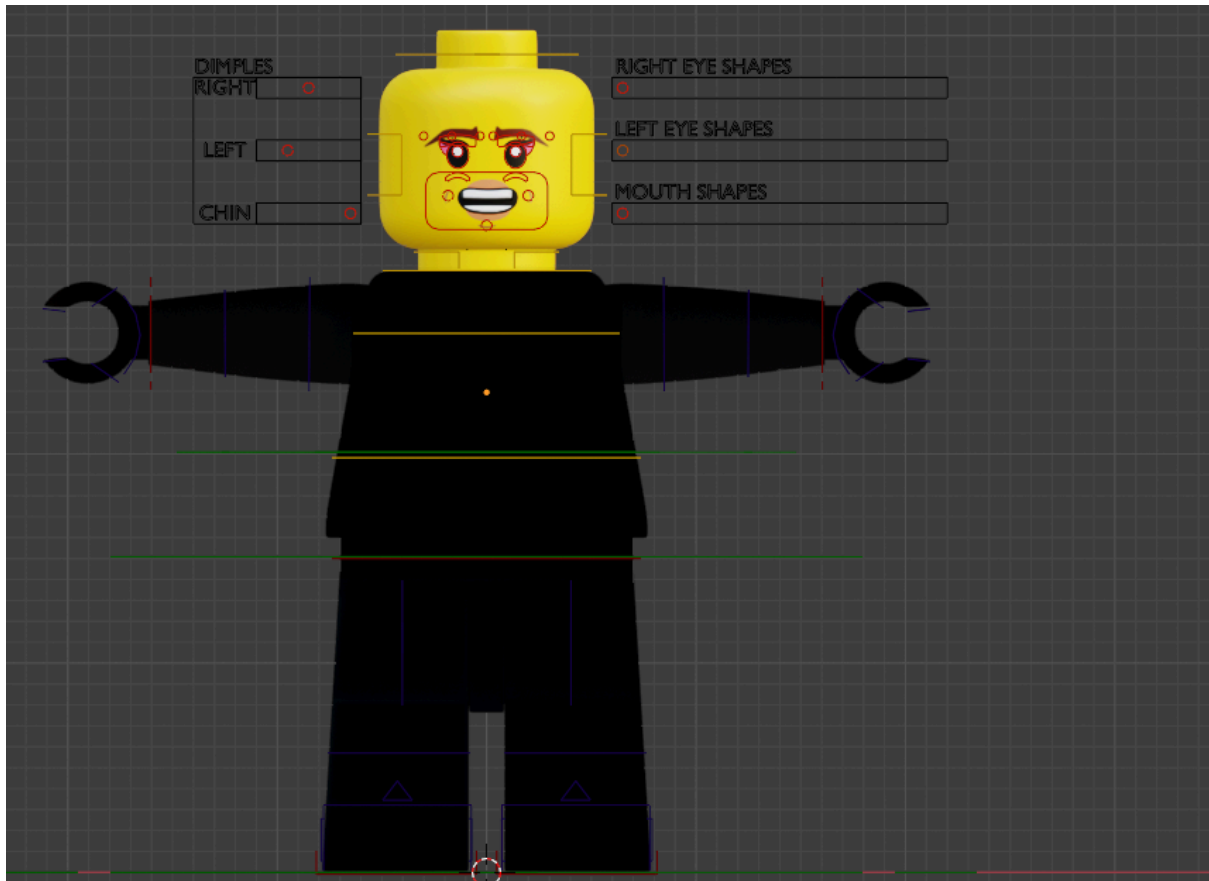|	
2nd Center of Mass	1
Figure Size	0
Left Eyelash/Line	2
Right Eyelash/Line	2
Left Eyeline	0
Right Eyeline	0
Left Pupil	1
Right Pupil	1

All the features are available in the Custom Properties panel of "Object Data Properties". Or, they are also available in the script UI as shown above. (The script will need to be installed via Dgards github)


For any bone in the actual rig, select the bone, adjust it, then either right click and add a keyframe, or turn on auto-keying to add one.

IK/FK Blend Controls

▼ Arm Controls	
ArmL IK-FK	1.000
ArmR IK-FK	1.000
▼ Leg Controls	
LegL IK-FK	1.000
LegR IK-FK	1.000
▼ Additional Controls	
2nd Center of Mass	1
Figure Size	0
Left Eyelash/Line	2
Right Eyelash/Line	2
Left Eyeline	0
Right Eyeline	0
Left Pupil	1
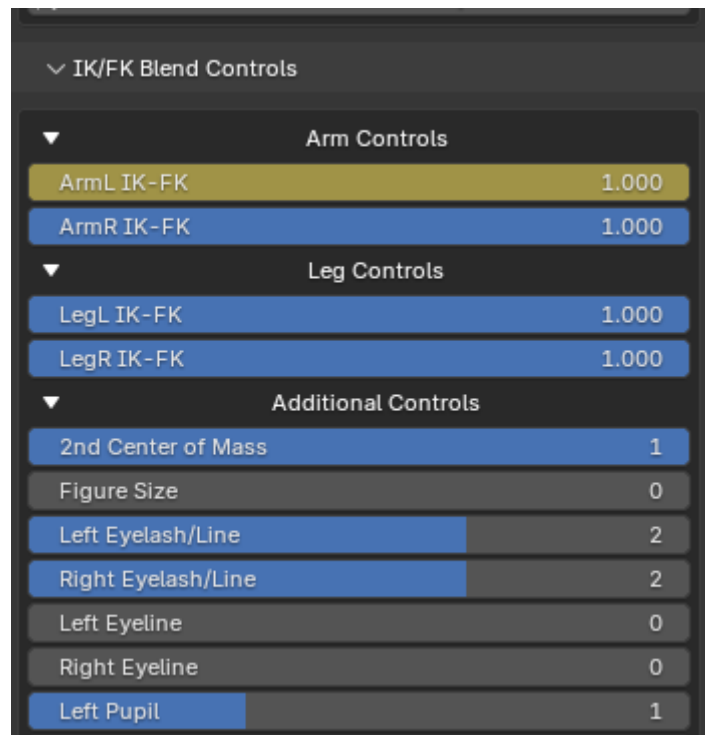
To keyframe controls in the script or custom properties, adjust the property, right click to add a keyframe, and the following keyframes can be automatically added if you have auto-keying turned on.
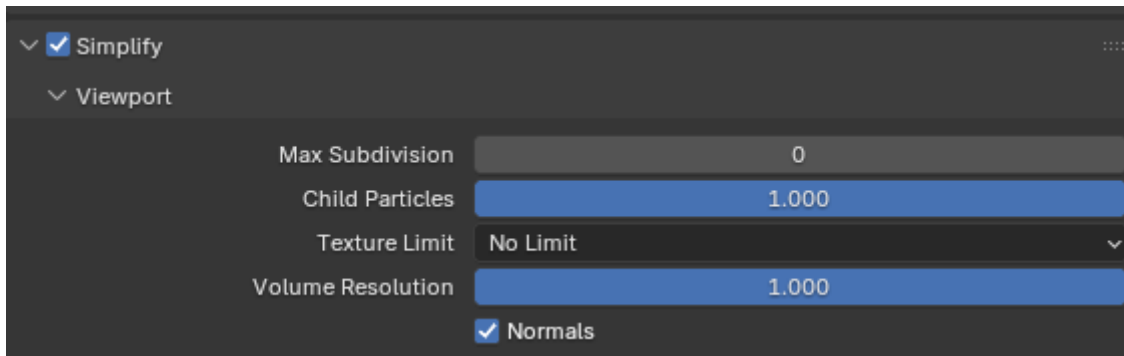
Animation

All of these new features do slightly come at a cost, they can impact your viewport performance. We don't really have a clear solution for that at the moment, but to help reduce the lag, in the viewport, you should ideally animate in this mode.
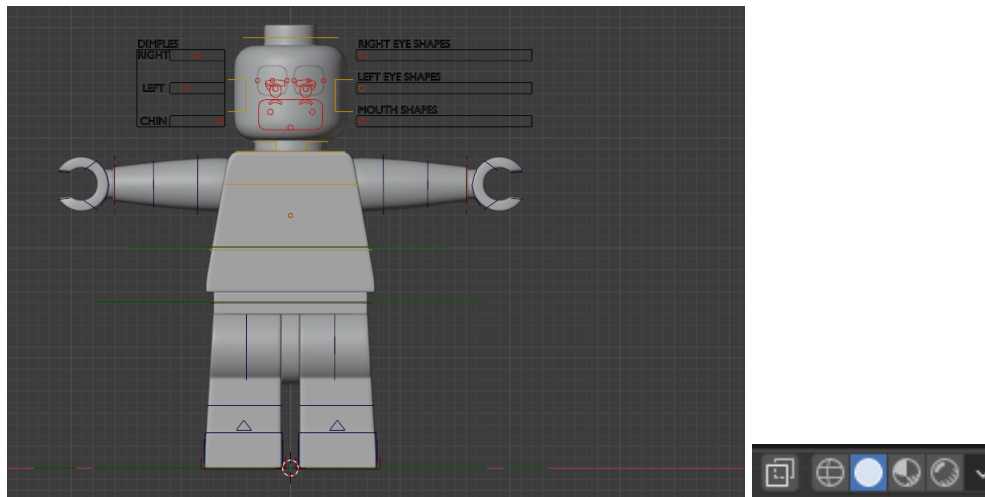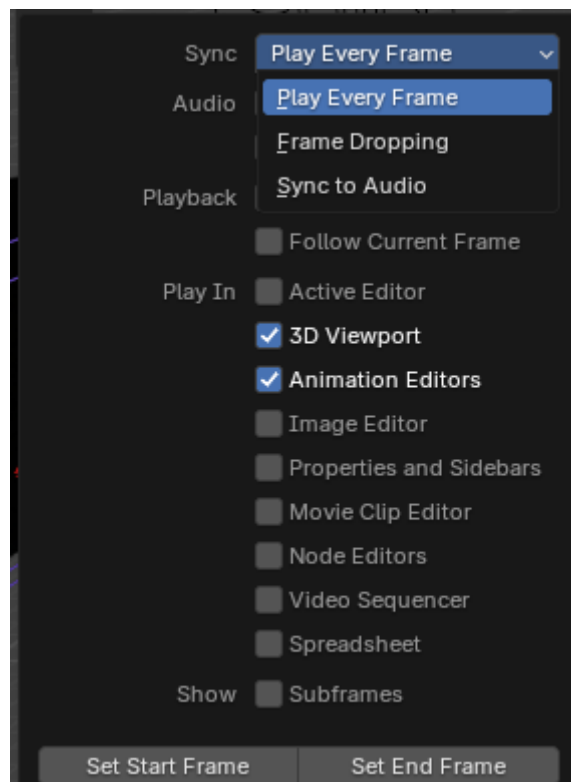

For animating the facerig, use this mode.
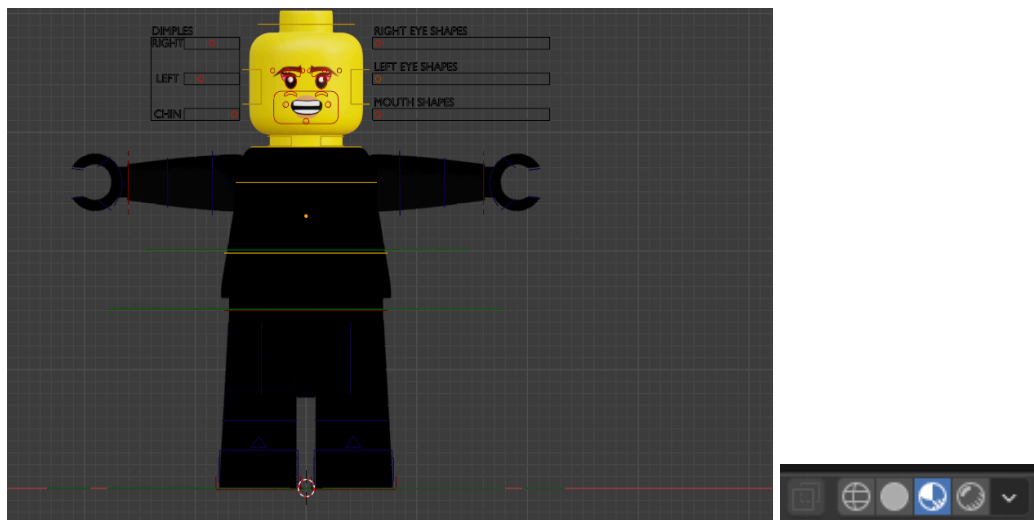
Turning on Max Viewport Subdivisions to 0 and Normals can slightly improve performance, although not a lot.


When syncing to audio, ideally choose Frame Dropping or Sync to Audio as Play Every Frame will be offsync.

If you are on Blender 4.5, I recommend you change the Blender graphics API from OpenGL to Vulkan (You will need to restart for it to take effect). This should also improve the viewport performance.
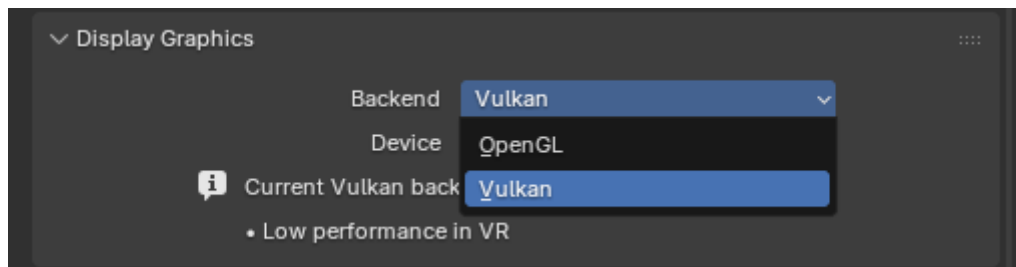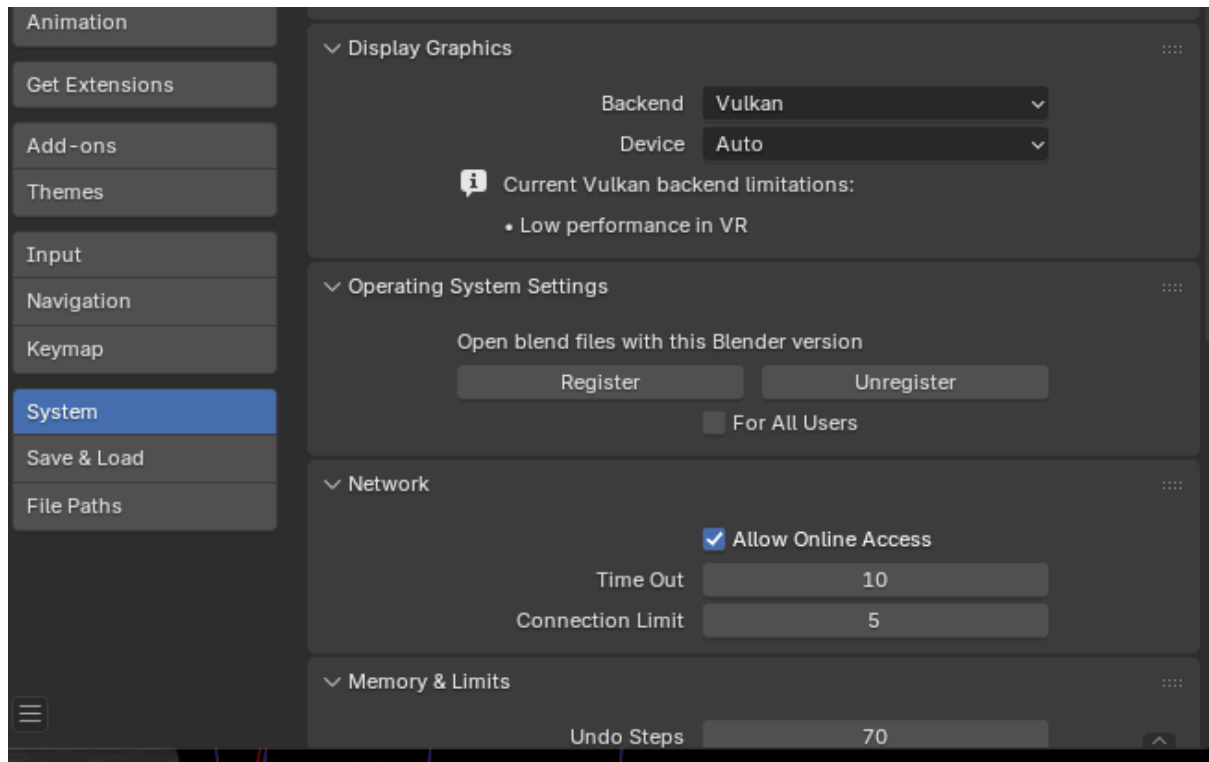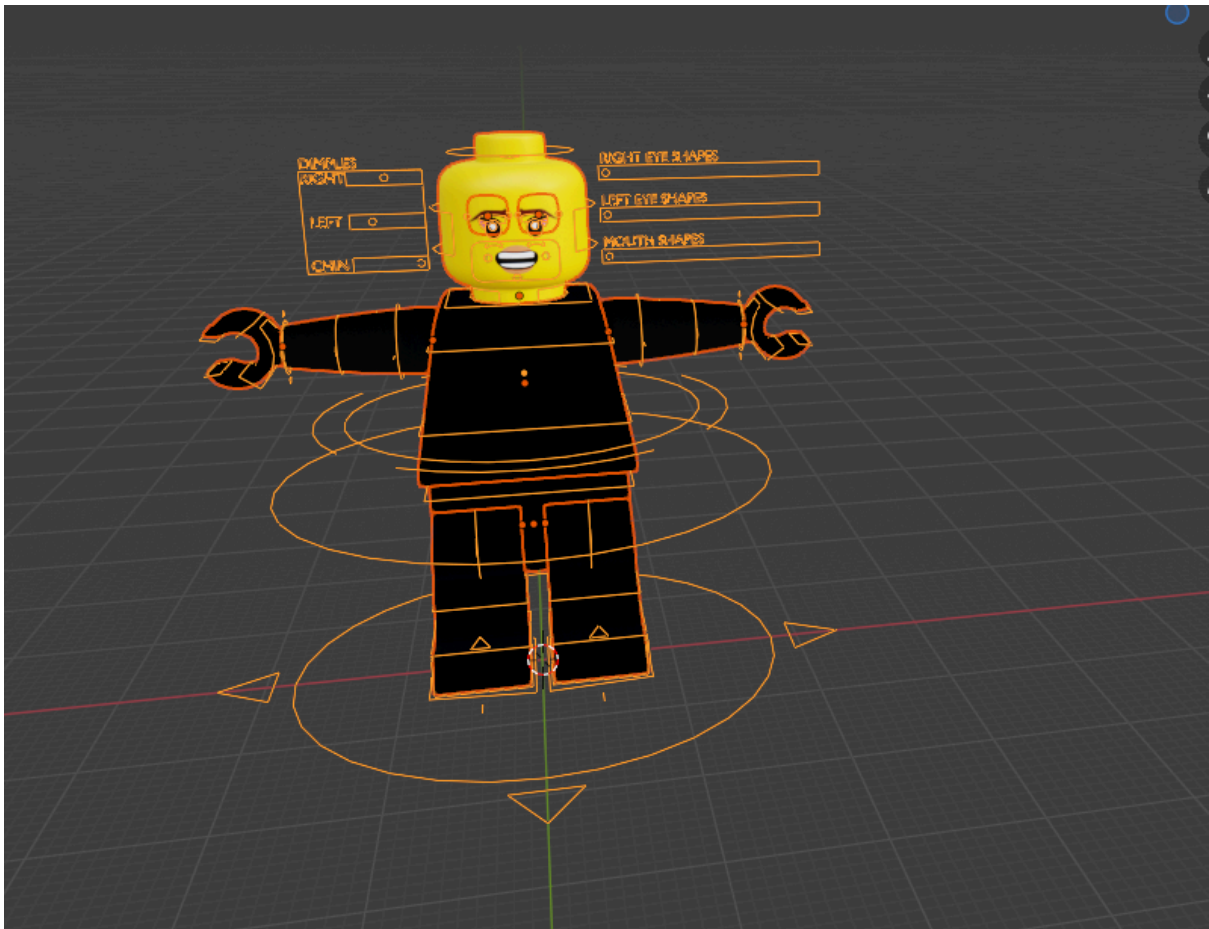
If you have a decent GPU, please use it. (Won't really help with viewport, but final render). I'm surprised by the amount of people who don't.
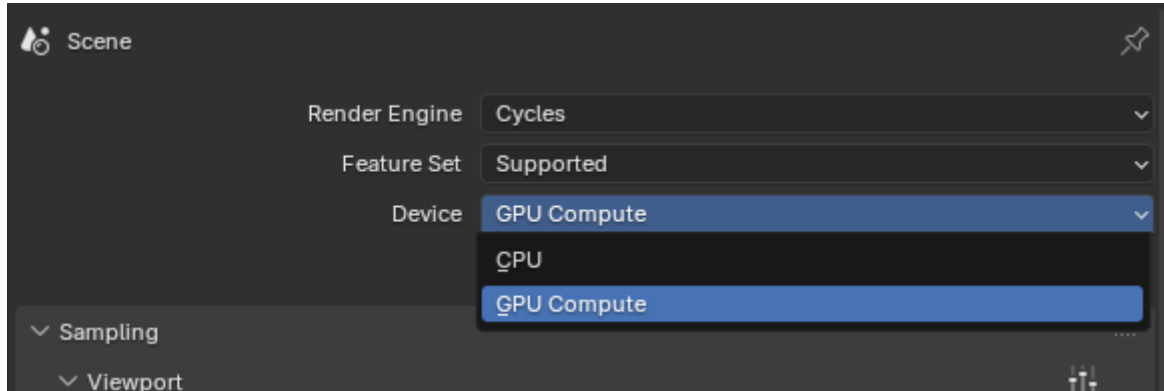
Copying To Different Files

Ideally, sometimes you may want to copy the rig to your other blender files. For this, it is not necessary to append (although you can). For a faster method, press A to select everything,

Then press CTRL C to copy, and go to your other Blender File and press CTRL V to paste, and it should work.

Issues And Help

Although I've tried my best to explain everything here, you may sometimes face issues. Feel free to ask @Dgards, @DvqJackson_2 or @NJ Central for any help.

That should be everything, many more features will be added soon, thank you for reading, and we hope you enjoy the rig!