

***Tutorial Reference:  
Comic Style  
In Blender***



# ***Tutorial Reference: Comic Style In Blender***

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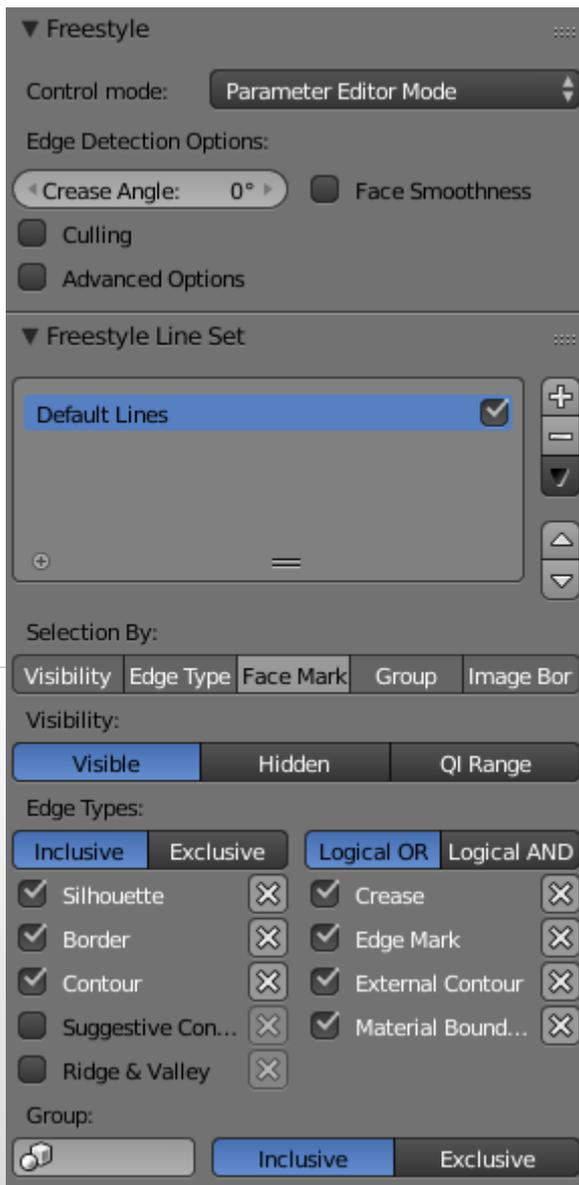


# Freestyle



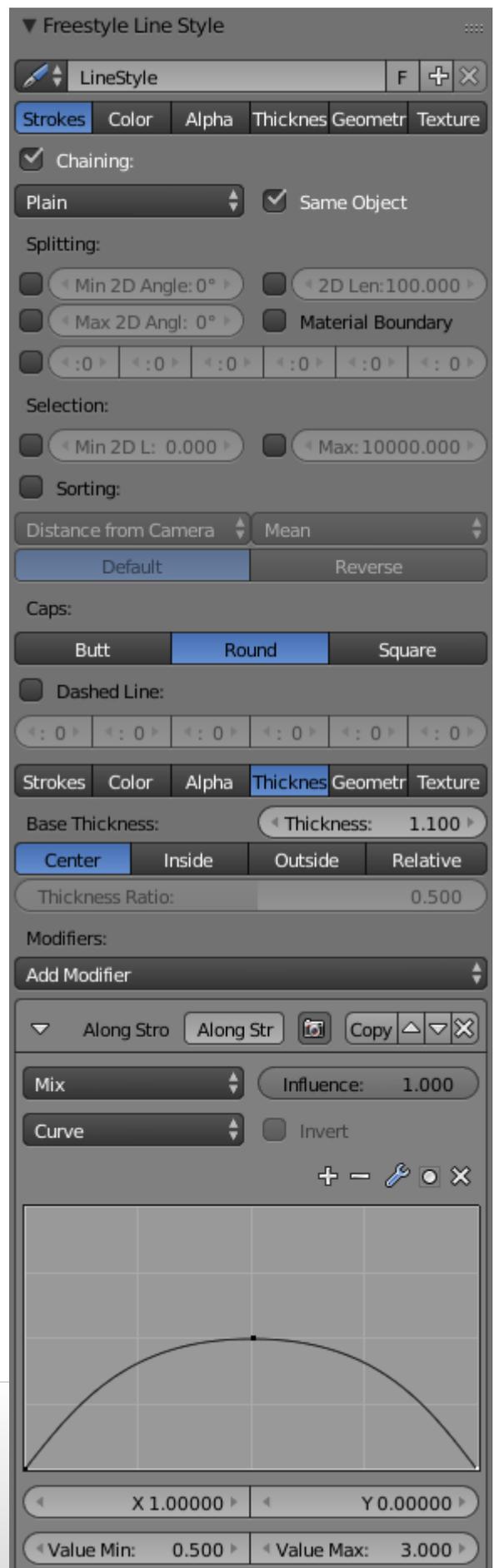
We set this to relative for the sake of being able to adjust the resolution. Rendering tests at FullHD or higher is insane unless your computer can handle it.

## What we use Freestyle on:

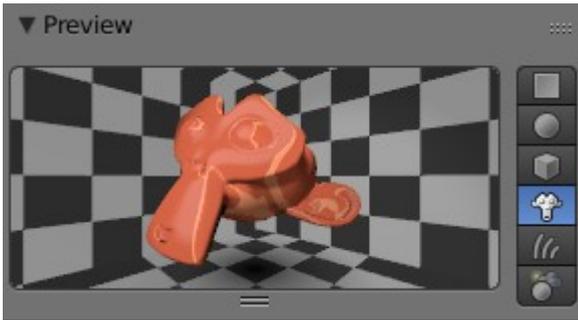


Group does not need to be on, unless you actually use it. In the case of this tutorial, we did not need to apply it. As for the rest, you can copy my settings above.

## Freestyle Line Style:



# Materials



Our Materials follow a basically identical pattern. They are all toon shaded, whether specular or a diffuse look apply. The only difference here is that we use random amounts of smoothness that we judge by the eye.

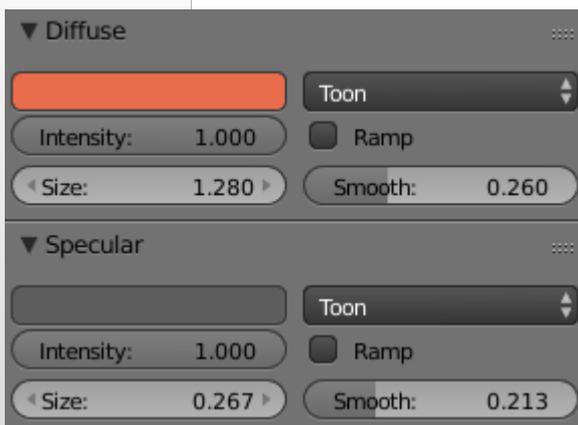
We also, to avoid any possible aliasing problems with the shader, still:

- Activate Full Oversampling
- Give a Material Pass Index of 5
- Receive opaque and transparent shadows

- De-activate Auto-Ray Bias

Which, in this case, is optional, as it can help your shadows appear more smooth where the geometry is a bit blocky, but I would not count on it to solve the problem completely, because it doesn't – it actually detracts from the look we're going for. I strongly recommend turning it off on all your materials.

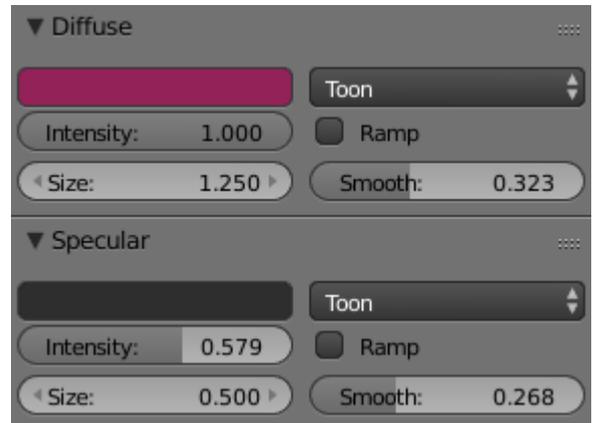
The basic material settings are as follows:



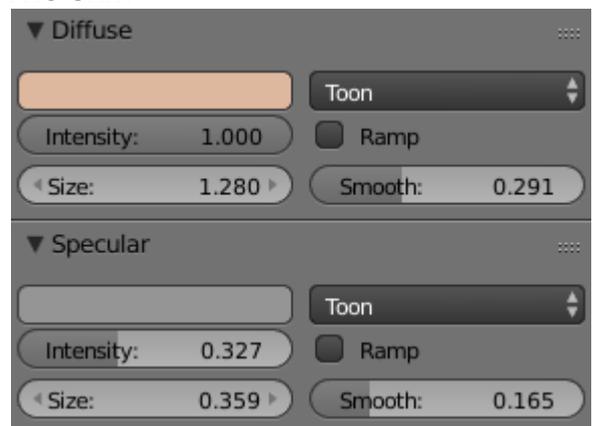
Remember, these are not set in stone. You still have to customize for every material that you have. Cloth does not give off the same specularly as the eyes do. Wood does not give the same specularly as hair does. It's all different.

Just as an illustration of how materials can differ, here are a few from the tutorial:

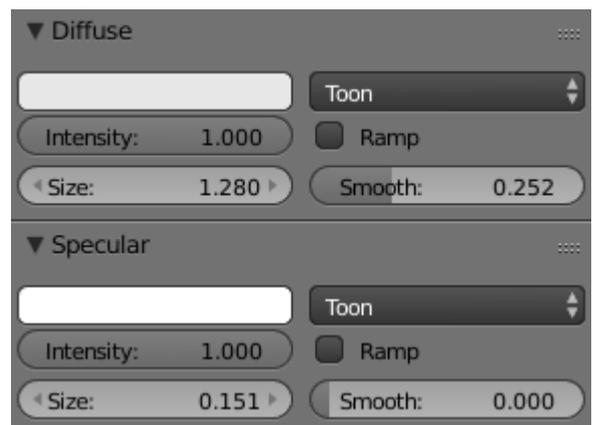
## - The suit



## - The skin



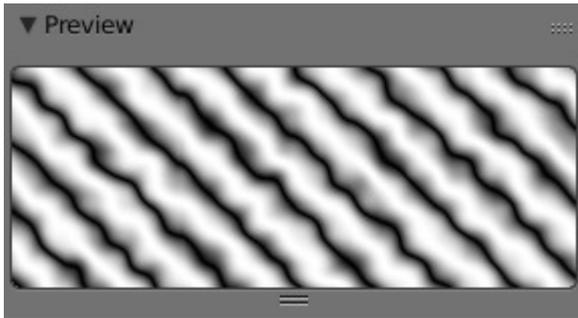
## - The eyes



The only similarity between these is that they are all toon shaded and their diffuse size is the same. The rest will only correspond if you judge them to be visually needed to be that way.

Your material preview is crucial! Use it.

# Textures



When we texture for the materials, we need to keep in mind what the material is sticking to. For example, when we look at the hair, what direction is it flowing in. Is it flowing mostly horizontal or mostly vertical? This will inform your decision on what to do.

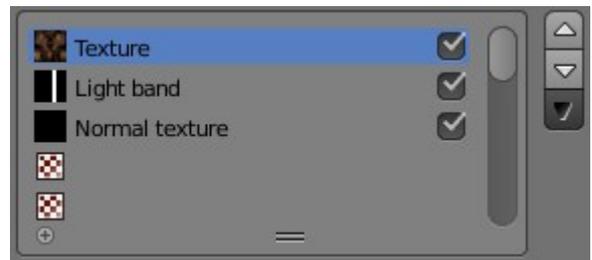
As you saw in the video, this style of hair, required two textures, as the hair goes both horizontally and vertically in a strong sense. Apply another material is simple if the one is already finished.

As an updated technique, keep the hair texture that comes with the model, if you use something like Make Human to model your characters, it just adds as bit more character to the light band in the hair.



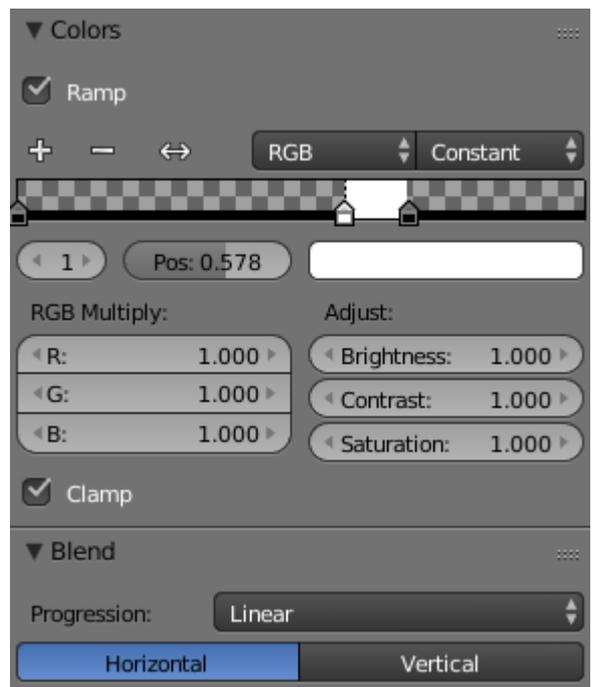
## **Hair:**

The basic texture structure for the hair goes like this:

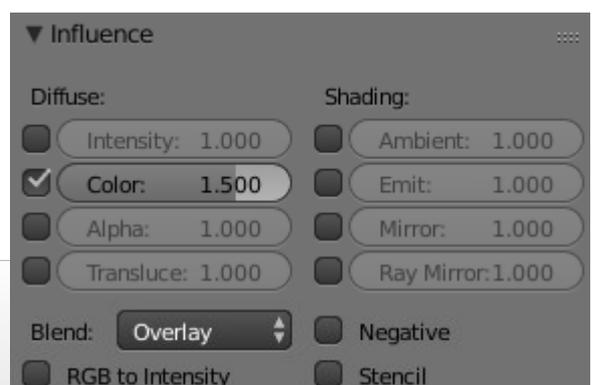


We place the light band after the texture, so we are assured that when it has normal influence active, that it will affect everything below it (visually in the final render, above it).

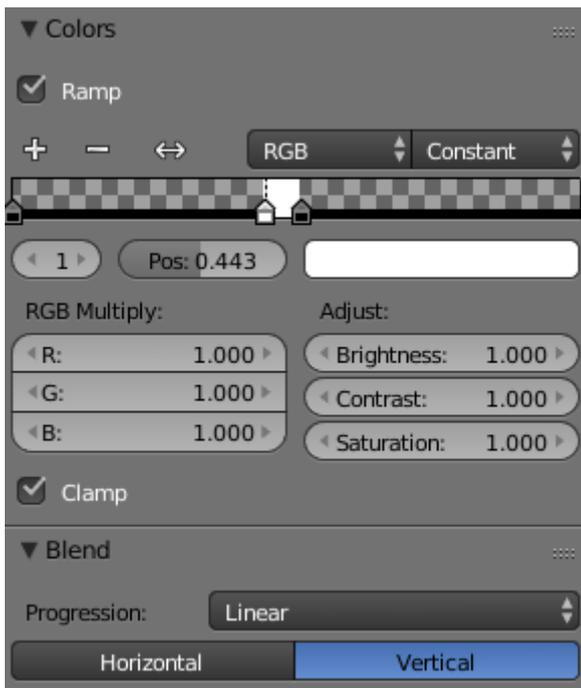
The light band itself, is a simple Blend texture, set to the direction of the hair and set to reflection:



Don't forget about the colour influence it has:



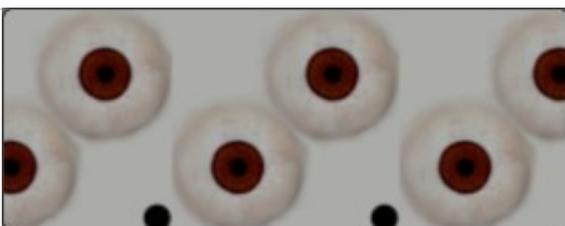
This applies to the second hair material for the pony-tail itself, but only vertical with some adjustment on the ramp, to make it more centralized:



### Eyes

The eyes are a bit more complex, because we keep the default UV mapping that came with the model. This enables us to simply place the eyes where we want to and also allows us to colour the eyes without any hassle.

Because the eye-map looks like this:



We already have an idea of where things are going to go. Each eye mask is going to be approx. 0.5 off centre on both the X and Y axes.

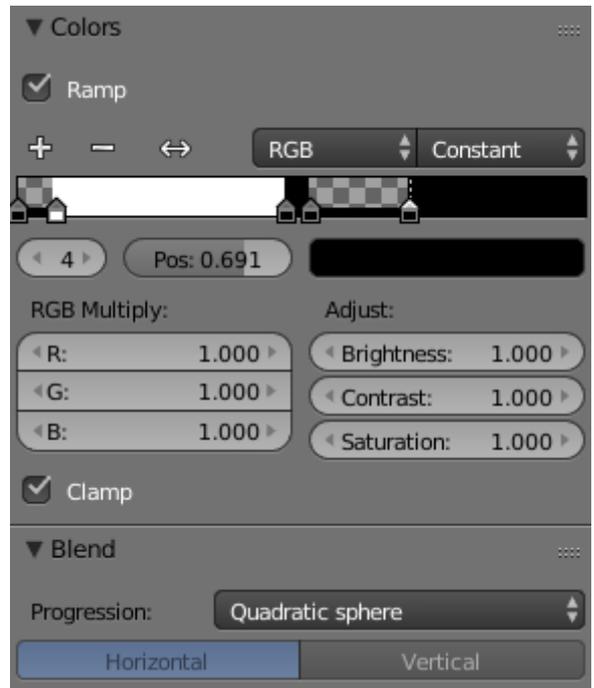
To be more precise, they will be:

- > -0.41 (X)
- > -0.40 (Y)

And for the other eye:

- > +0.41 (X)
- > +0.40 (Y)

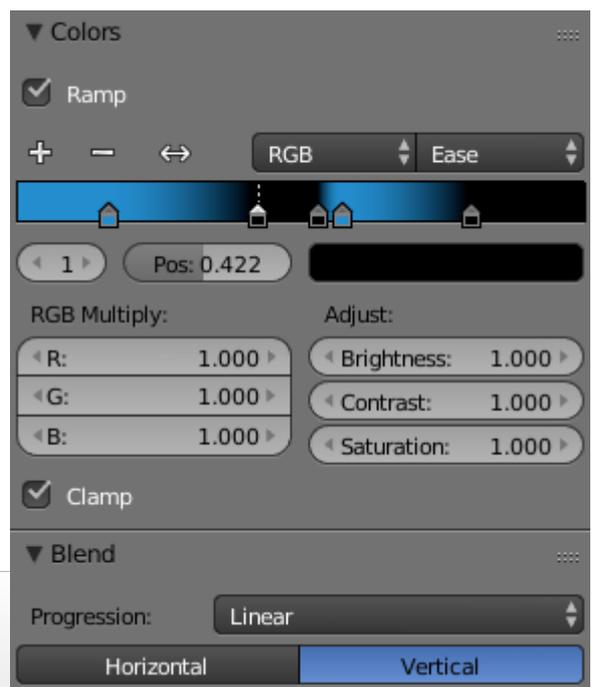
The eye mask looks like this:



This is simply a blend texture, set to Quadratic Sphere. Your centre starts at the far right side of the ramp and the edge is at the far left.

Remember, if you get one right, you simply duplicate it and move it for the other one. Also, keep it on UV Mapping, or it won't work. You can scale these eye masks to be more oval.

As we all well know, eyes have colour, and as we are using masks, we need something in the gaps, so we have the eye-colour texture. A vertical Blend texture, ramped to give to eyes a fill of colour, like this:



Again, keep that UV mapping and don't scale this one, only adjust the ramps.

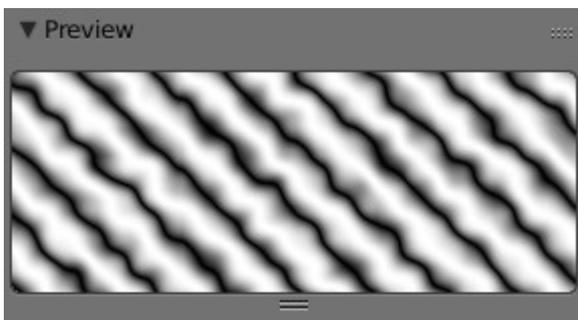
## Diagonal shading lines

A plain old wood texture suffices here quite nicely. If you want to use a marble texture instead, you are welcome. Cloud texture, also, just make sure you get the look you are after.

What's the most important here is that this particular wood texture does not show up anywhere - as in at all, except in compositing. If you wish to stick it to an object, just make sure that it's not ticked to render onto the object, then you can do it that way.

We use everything default, except:

- Turbulance is set to 2 (5 is too intense)
- And we use Band Noise instead of just bands.



## Normal Texture

And finally, our normal texture. When we look at comics, they often have very black shadows, even on the more modern comics. If you want a stronger black, you are free to adjust this, but the black we're making here, has more to do with style, than shading, as it does not respond to light, but only the physical structure of your object it's applied to.

For example, here is a sphere with this same influence applied to, I showed this in the video too:



That black rim, or outline, is caused by the normal influence and it will change as you move around the camera. It will always work facing the camera (if not in camera, the viewing angle).

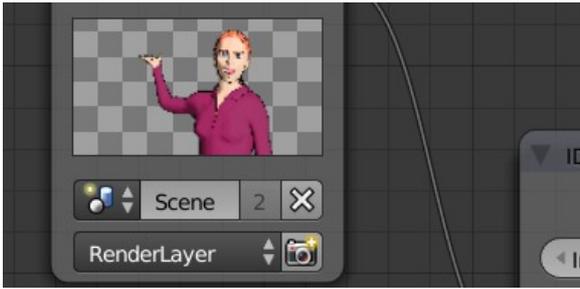
To apply it is very easy. Add a blend texture to every material you want this black effect applied to:



Pay special attention to the Mapping. The axes are not the typical X, Y and Z. They are Y, Z and Z to make sure it always faces the viewer (only when Normal coordinates are applied).

**Note:** Whenever you do use constant as your blending or mixing method, make sure that you have Full Oversampling turned on, because if not, you will have an aliased result on this texture.

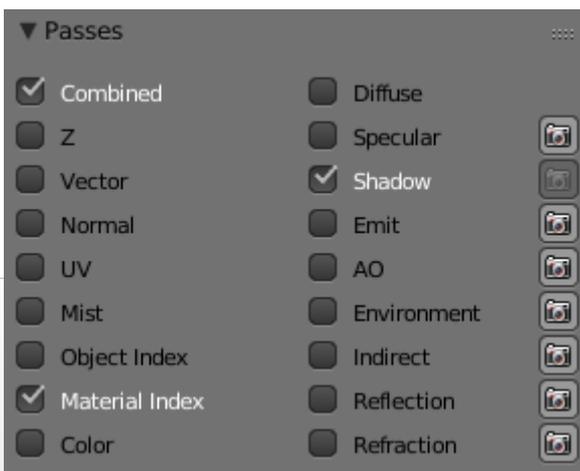
# Compositing



Aah, yes, compositing. That wonderful process that at the start had me opening the node editor and closing it just as quick, haha.

Nothing to fear here, as you know, so let's get into it.

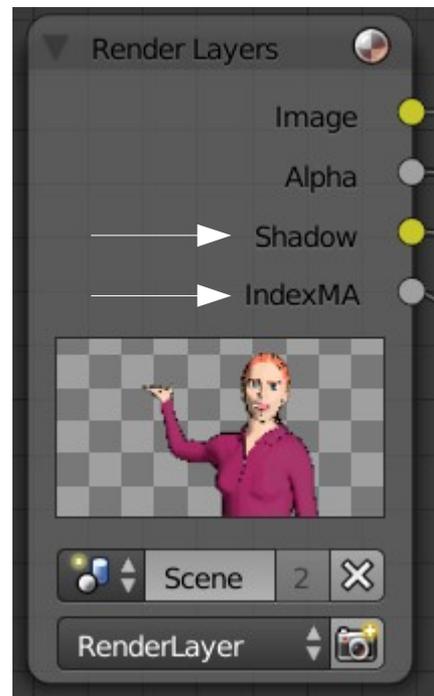
In order to achieve the two tone shadows we want, we need to separate our shadows from the render. You can do this by going into the render layer settings and looking under passes for Shadow. Make sure it is ticked and muted from the render:



Also, make sure that Material Index is active, because, whenever the shadow pass has no shadows active, it causes flat-black. So, if you have a sky, that sky will be flat-black – masking is key to this process.

Okay, now you have materialized and textured your model, now you've also finished your lighting and you're all happy with what you have. Now you need to up the samples on all your lamps and increase their soft size too. You can start at about 2. I used 3 for the index render, but you can even go higher. It simply depends on your individual model or scene.

If you were to render this awesome model you have put together, you should see this in the compositor:



Use your material index as a mask and mix it with your shadow pass, so you see something like this:



(Thankfully, this is not the final render, haha)

Add your Wood texture now by simply going Shift+A and looking under Input > Texture. You can select it from the drop-down, but make sure that you remember what you called it. Make it's scale 45,45,45 (X,Y,Z)

This you will use as a factor input for the above image, so you can have smooth finishing diagonal lines.

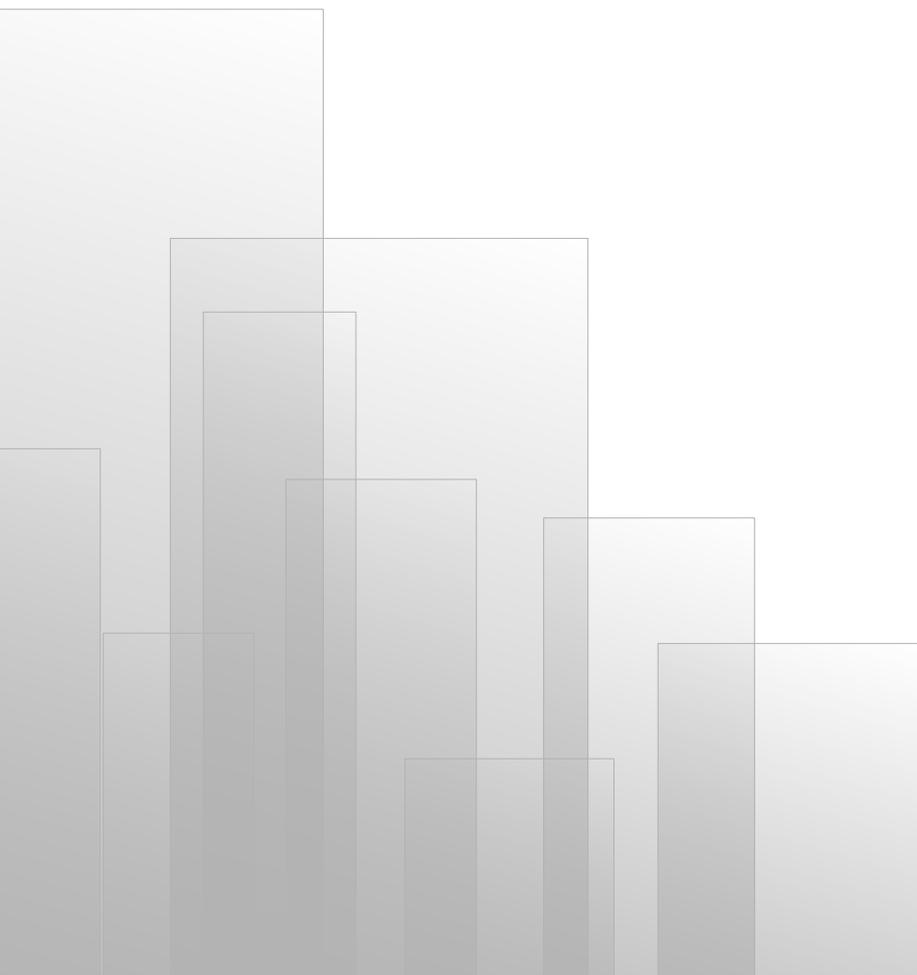
Remember, you can use the ColorRamp node to adjust the length or stretch of the shadow. I recommend sharpening it's endings, because comic style lines don't typically fade out at the tip; they end rather abruptly.

Secondly, also taking a ColorRamp node, take the same image on the previous page and make a harder version of the shadow, so you have a flat black > diagonal lines > clean colour. That will give you the suggestion of having a minimum of three tones, while still getting that "drawn" feeling.

Now, multiply these two shadow pieces over each other and over the original colour image render.

Also, take the pass on the previous page and overlay it over the newly shaded image. Just make sure that you give it a medium grey, or it will cause the lighter side of the colours to appear washed out. We only want to darken the image further, not brighten it up – comics have very strong blacks.

And finally, add whatever compositing you wish to add. You can simplify your background, you can keep it crisp and just give it some soft outlines, or whatever. The style is totally up to you. I was just used to enable you to go be original!



# Credits

First and foremost, GOD for teaching me how to do this. I am so thankful that I get to share these tutorials with you guys and super thankful to GOD that I get to!! May there be plenty more for YOUR glory LORD JESUS!!

Secondly, I would also like to thank the guys who work on Blender and Make Human – wow. Without all your hard work, this would not be possible! I cannot thank you all enough!

And I would also like to thank the friends and family that are always willing to give me feedback on progress shots and tests and all those things. It's amazing that you guys stick with me!!

A huge thank you to all those open-source and free software projects out there. So much work goes into what you do and because you do what you do, teachers like me can do what I do. You all rock!

And last, but certainly not least, you guys who watch, subscribe, share and read what I put up. GOD bless each and everyone of you! I appreciate all the feedback I get, because I want to continue to improve and give better and better material. Keep watching!! You rock!!

