

Final Image



1920 x 1080, rendered at 8192 samples

Reference Image



Project description and process

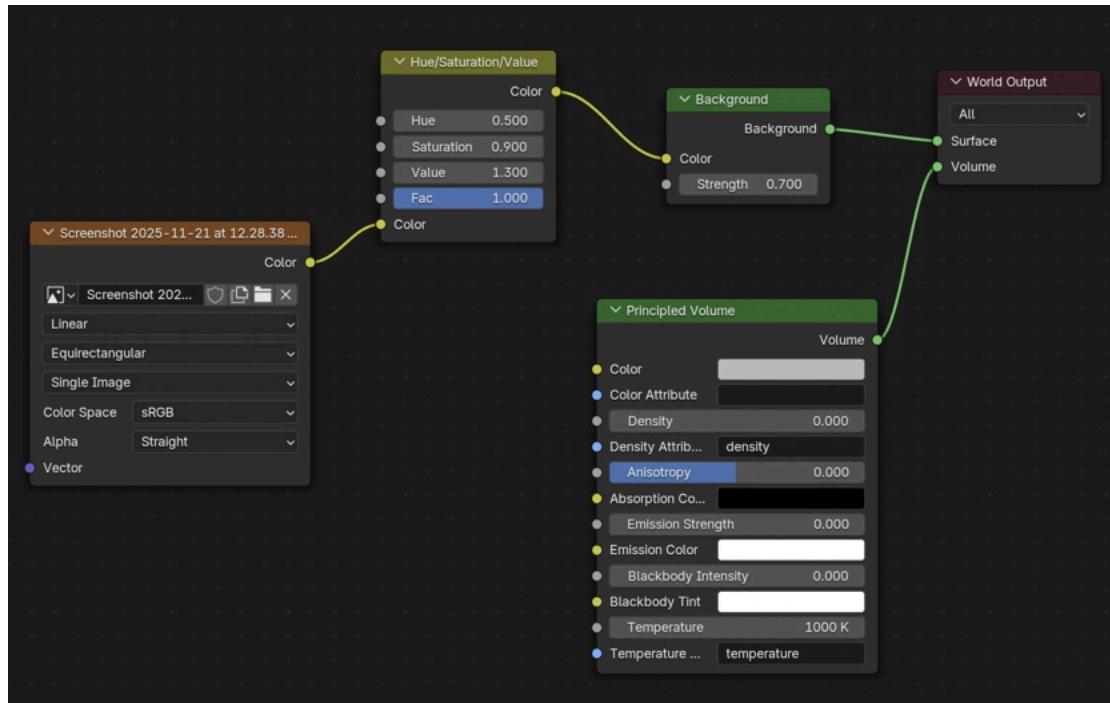
I started off creating this scene by creating each piece of armor that the Mandalorian wears by inserting my reference image into the background and molded each piece of mesh using techniques learned during the quarter. Then I added in his body and clothing using mesh pieces. After adding in these pieces I used blender's sculpt mode to create fabric ripples and shape his body to look more natural. I also added in subtle snow in the background using multiple different shapes of icospheres to create irregular snowfall. To add some finishing touches to the mesh I created Grogu's Santa hat then I UV unwrapped, hand painted and sculpted it. I then used an HDRI for the background and imported Grogu, the Razorcrest ship and the snow floor. I created the shading and texture for all of the parts of the Mando myself and finally added in multiple area lights and a sun to create the lighting in my final scene.

Leveraging the power of ray tracing

HDRI image used:



Settings used for HDRI:



I used multiple area and point lights to light up Mando from the front and back to create a better contrast and softer shadows.

Main Geometry from scratch

The entire Mandalorian figure was created from scratch with no tutorials by following my reference image and put together in mesh piece by piece. I also subdivided and sculpted the clothes and the hood/cape that Mando wears in blender's sculpt mode. I also created the Santa hat that is on Grogu from scratch following a youtube tutorial linked below.

Mandorian

Armor pieces:

- Helmet
- Left and right shoulder pieces
- Chest plate
- Shoulder strap and Belt
- Left and right forearm plates
- Left and right hand plates
- Left and right thigh plates
- Left and right knee plates
- Left and right boots/lower leg armor

Clothing:

- Hood
- Shirt/Top
- Pants

Body parts:

- Left and right hand
- Fingers on both sides

Progress pictures of Mando. This took about **10 working hours** for the full body.



Imported geometry:

Grogu uploaded .obj file:

- <https://sketchfab.com/3d-models/baby-yoda-ac26e5b4efad47b39ceb3171b1e173>
40

Snow uploaded .fbx file:

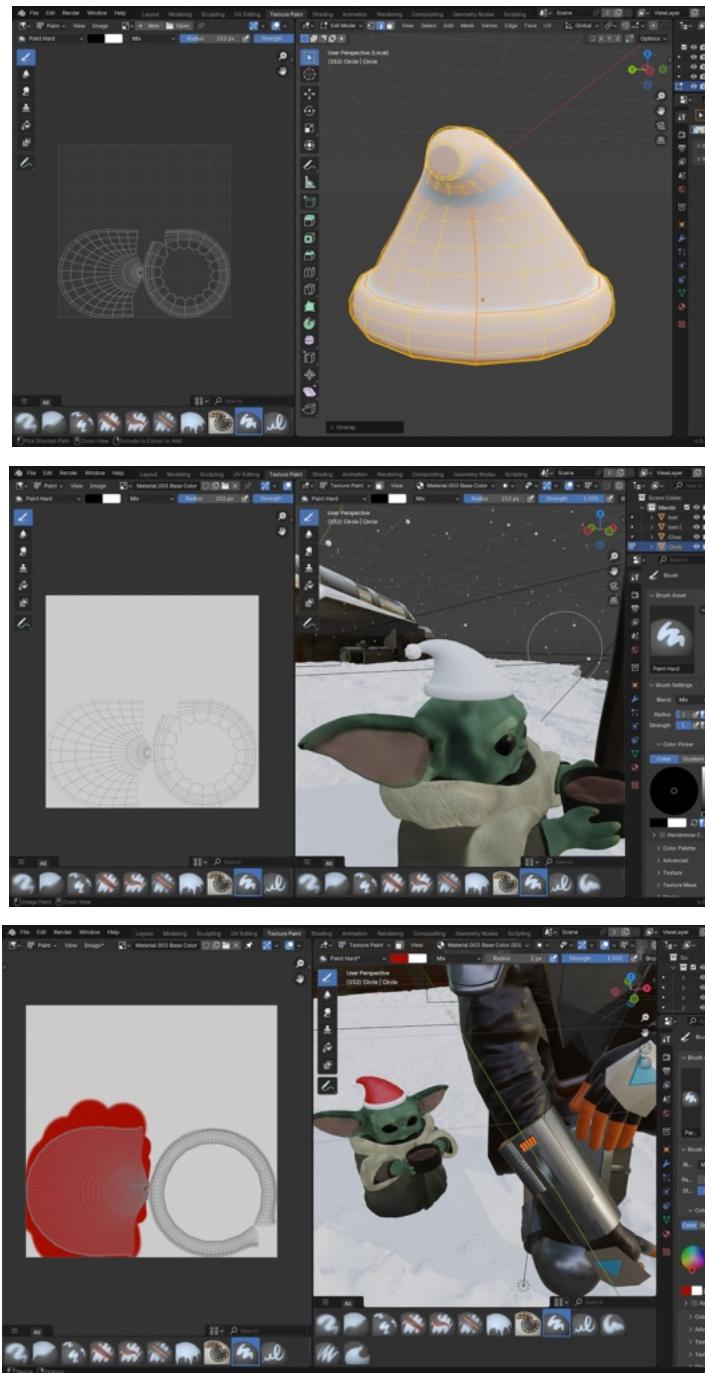
- <https://sketchfab.com/3d-models/ground-snow-1-e340cd824bf04ab98dc51d7acd b45b55#download>

Razor Crest .fbx file:

- <https://sketchfab.com/3d-models/razor-crest-star-wars-172cb62cc1e141cf4e4c484 40c348de0#download>

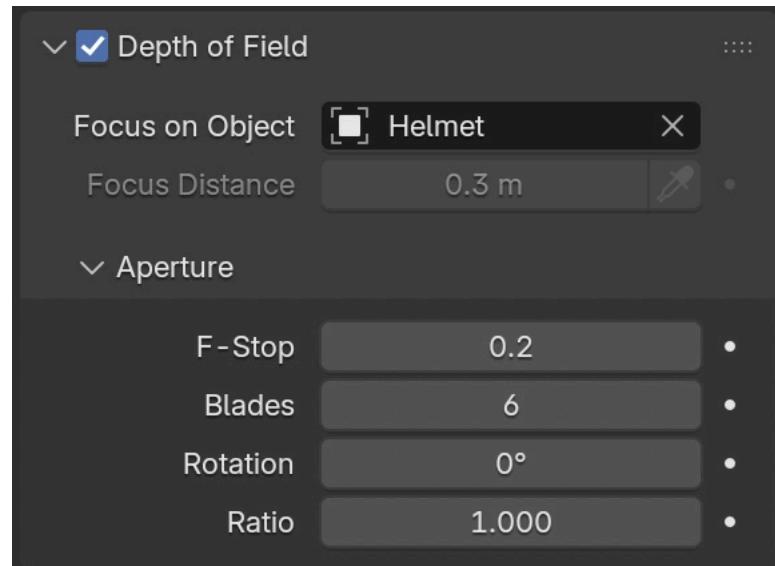
UV mapping and texturing from scratch

I first created Grogu's santa hat by following this tutorial: [Santa Hat Blender Tutorial!](#) . I then UV unwrapped and hand painted the Santa hat that Grogu wears in this scene. I used unwrap by minimum stretch and then painted the red portion of the hat. Finally to make the Santa hat look more real I subdivided the hat and used sculpt mode to add some irregularities.



Cycles advanced feature depth of field

I utilized Depth of Field to focus the camera on Grogu and Mando while blurring the ship, mountains and snow ground.



Contributions

This was a solo project I did on my own.

Sources

Gumroad used for texturing right thigh plate:

https://christopherfraser.gumroad.com/l/space-opera-textures?layout=profile&recommend_ed_by=library

Uv unwrapping and hand painting the santa hat:

 [Blender 4.0 - Texture Painting quick start guide](#)  [Santa Hat Blender Tutorial!](#)

Used for all of the armor plates besides the right thigh:

 [This Is The Perfect Way Of Creating A Metal Material With Rust For A Mandalorian H...](#)

Used to learn how to sculpt the clothing and cape that the Mandalorian wears:

 [Sculpting for Complete Beginners! \(Blender Tutorial\)](#)

All other YouTube Tutorials:

 [The RIGHT Way to do Edge Wear \(in Cycles!\)](#)

 [Making \(Fast n' Easy\) Snow with Particles | Blender 3.0 Tutorial](#)

 [This Is The Perfect Way Of Creating A Metal Material With Rust For A Mandalorian H...](#)

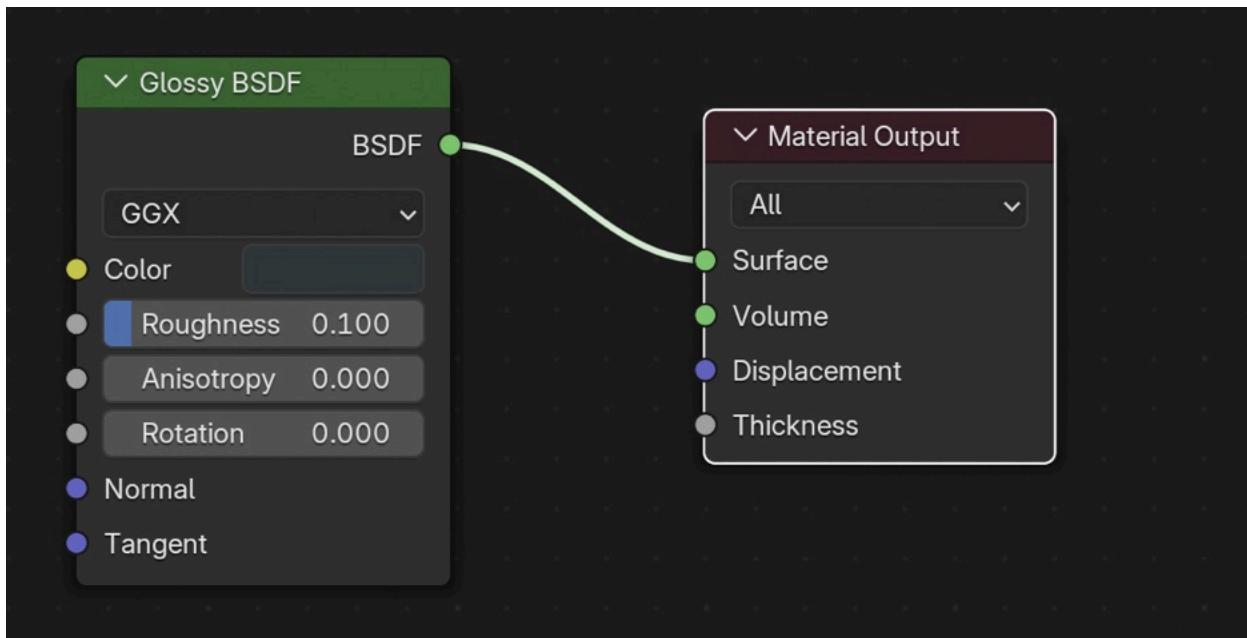
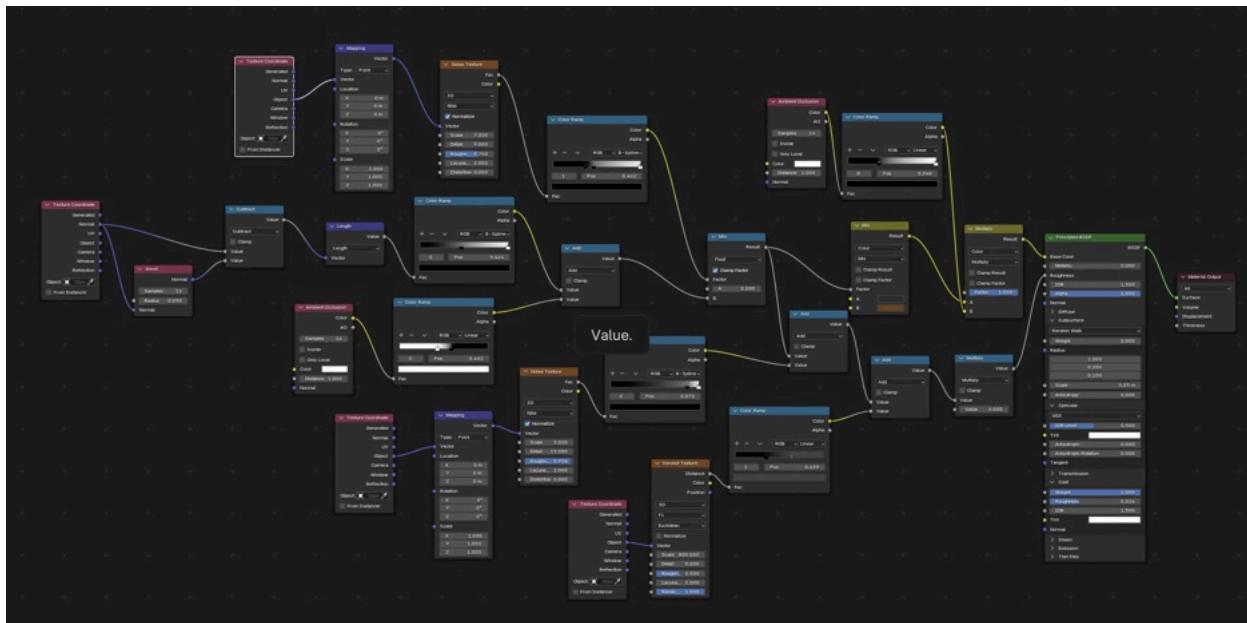
 [Sculpting for Complete Beginners! \(Blender Tutorial\)](#)

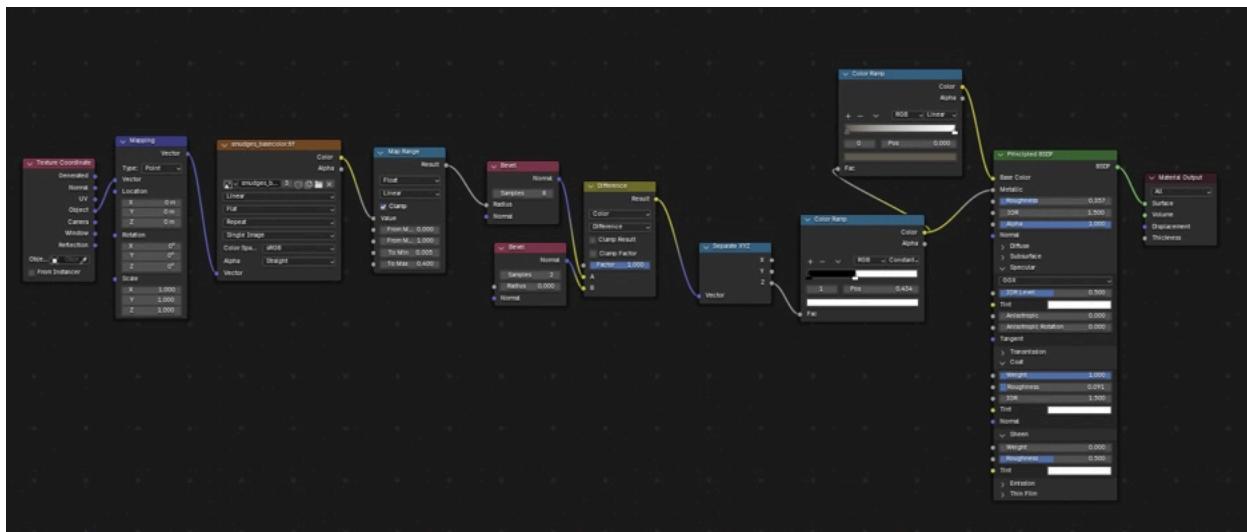
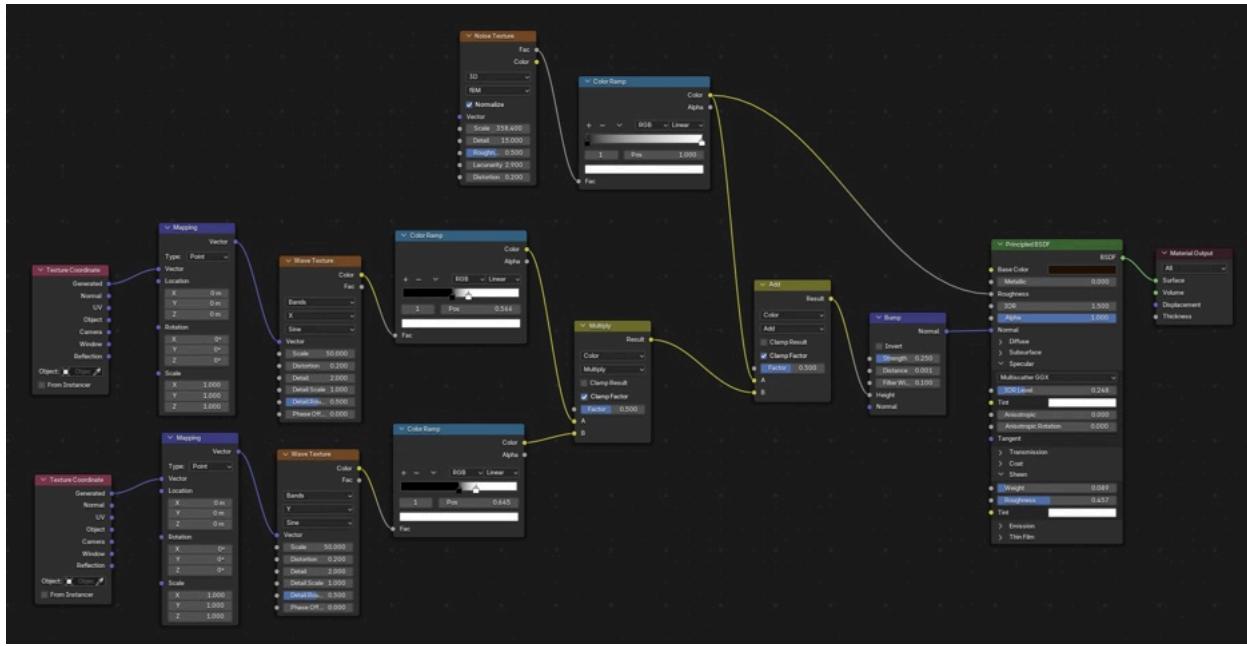
 [Blender 4.3 | UV Unwrapping For Beginners](#)

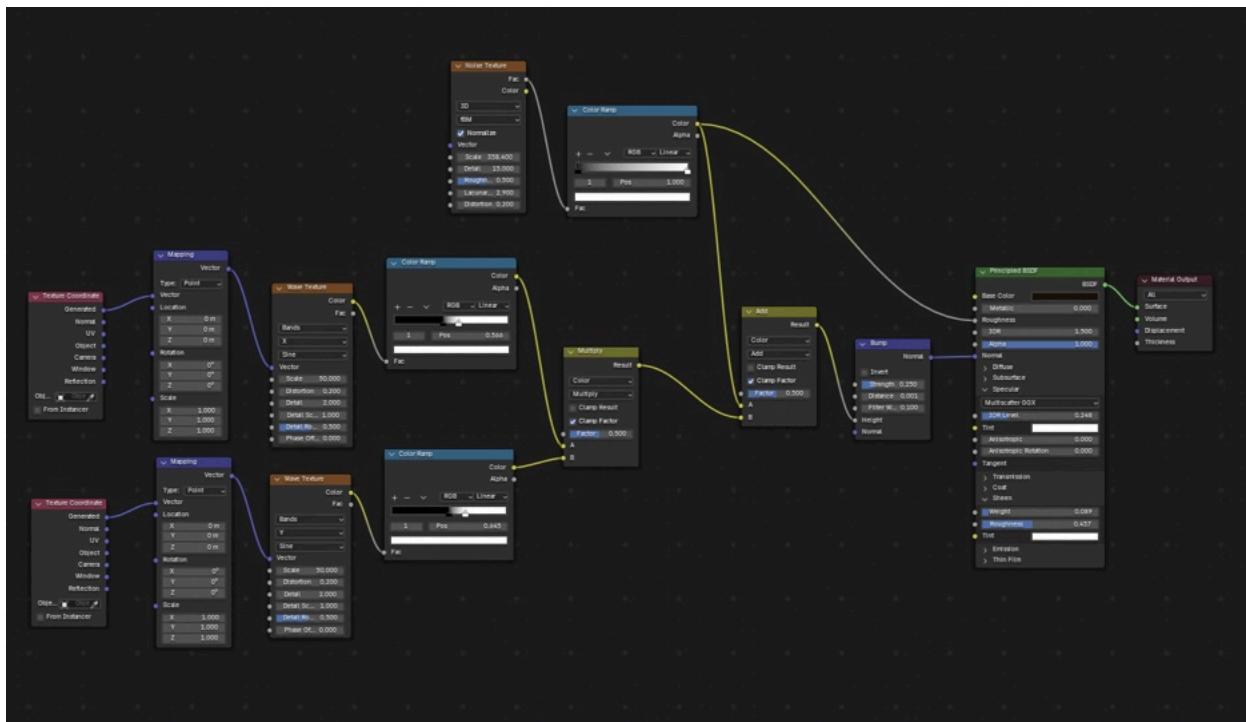
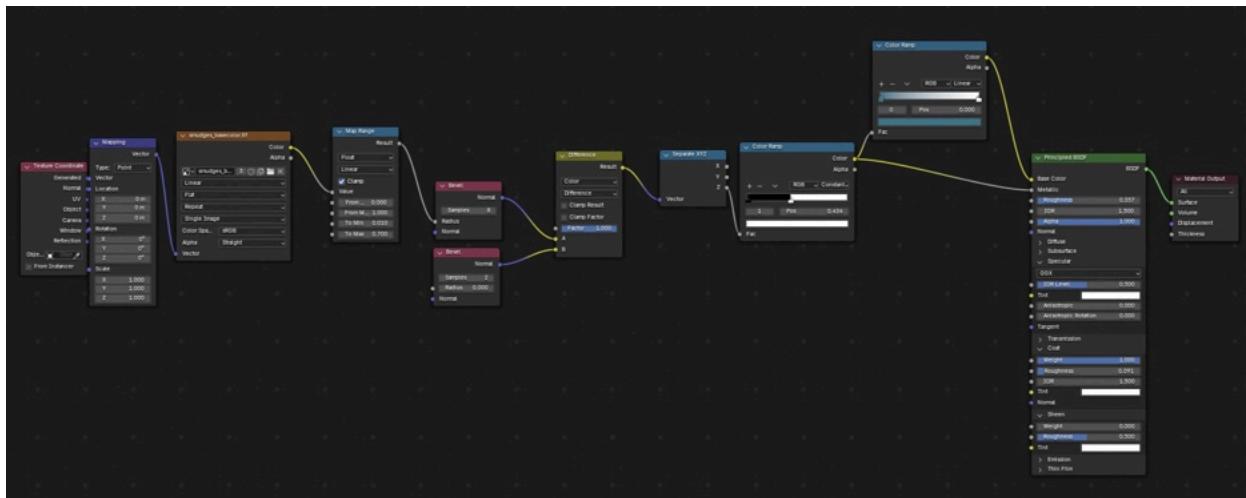
 [Blender: Easy procedural leather material](#)

Appendix

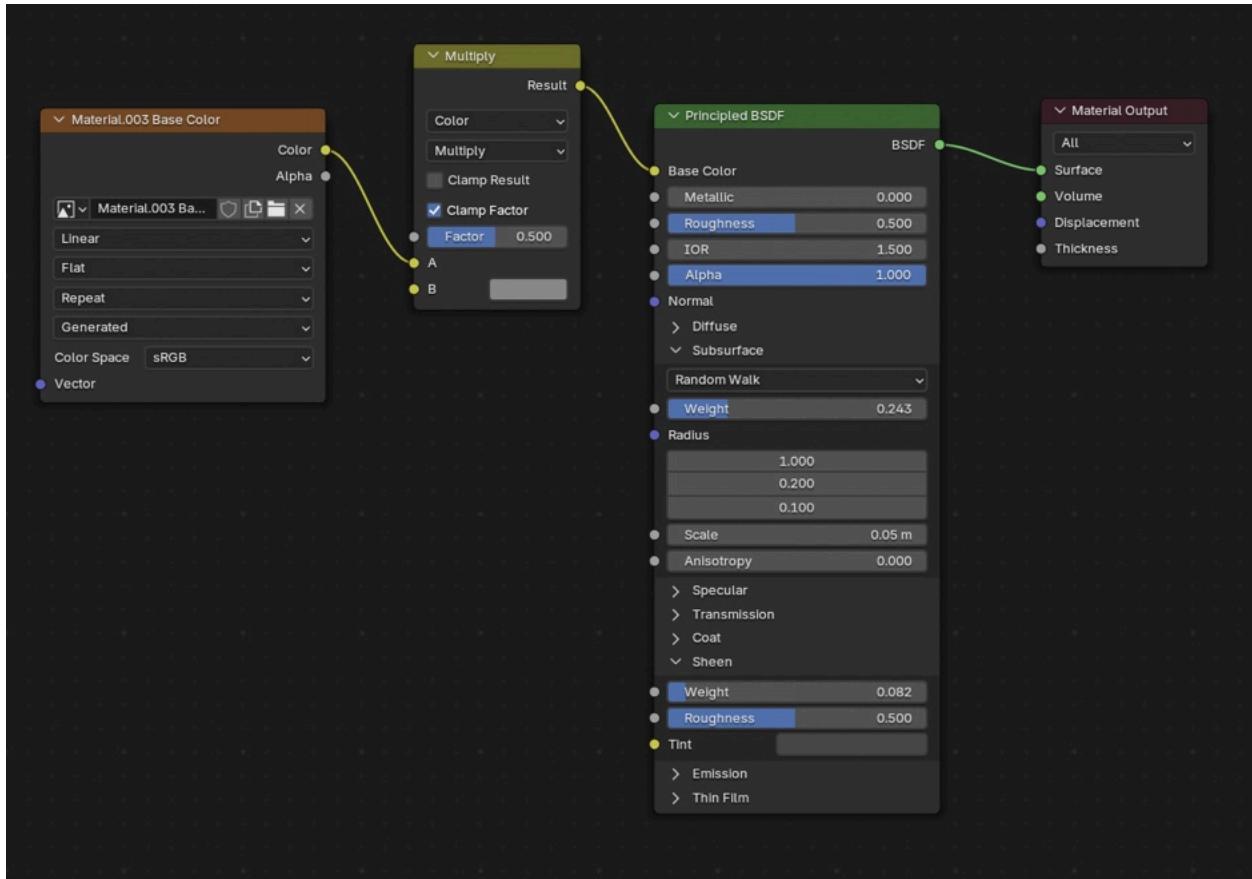
Mandalorian Armor







Santa Hat



Lighting

I used area lighting for contrast and also for the snow to reflect upwards, and also I had a sun light as the main light

