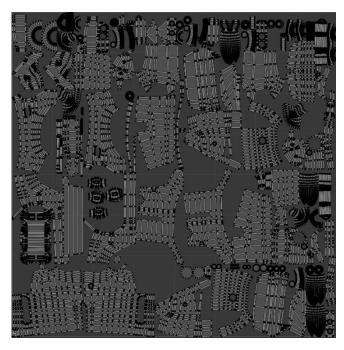
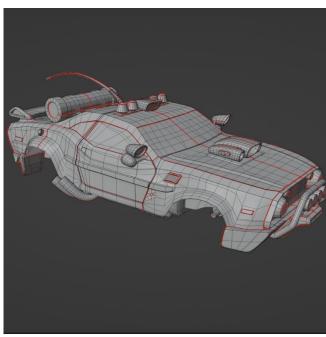
# SEMESTER WORK. TASK 2.

## UV

First I made a UV unwrap of the machine. I manually marked the seams and then did the UV unwrap. Then I manually sized and positioned the individual parts. After that I applied the Subdivision modifier.





#### **MATERIALS AND TEXTURES**

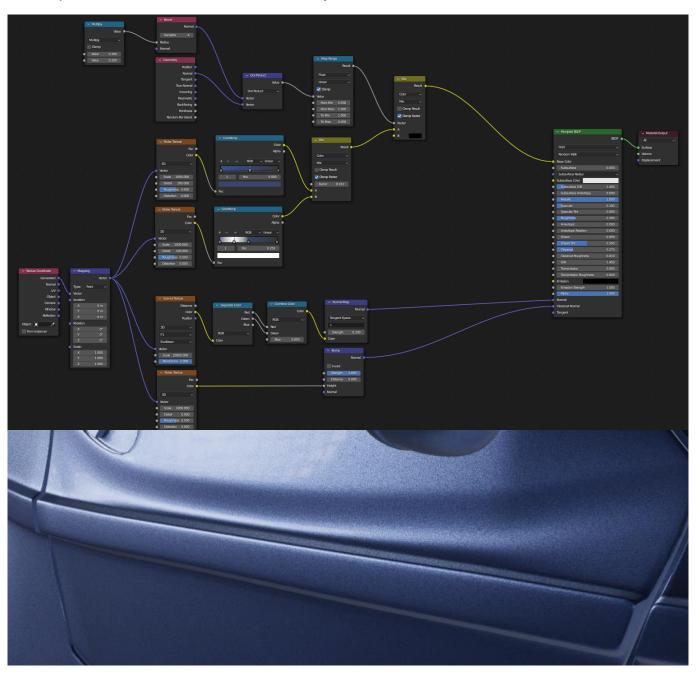
My textures are 4096 by 4096 pixels. Most of the materials are made with nodes, but I also have hand painting.

Initially I created several different materials for different parts of the car: body, lights, pipes, windows, headlights, etc. I applied materials to different parts of the same mesh by selecting the necessary polygons and the "assign" button in the material tab.

Then I baked them all onto the same maps so finally there was only one material on the car. I still had separate materials for the lights and windows. But they differ from the main one only by one parameter: transparency. For transparency it is also possible to make a map and remove the remaining materials, but I decided not to complicate my life:)

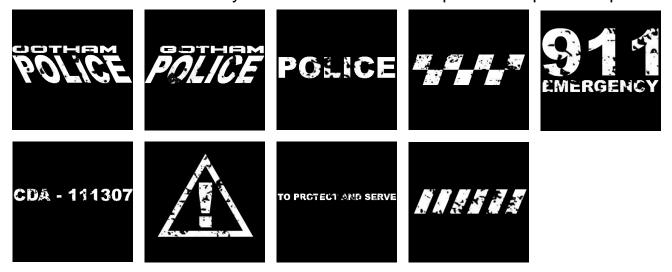
#### The car body

For the color, I decided to do a procedural material like in this <u>video</u>. I changed some parameters so that it would fit my car.



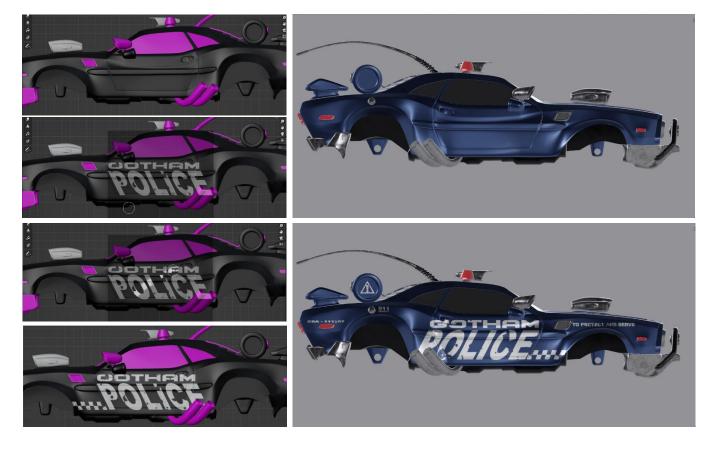
Next, I baked it onto a diffuse color map. I also used the "Metallic" and "Normal" as in this video and then baked it onto the relevant maps. I also baked the roughness map.

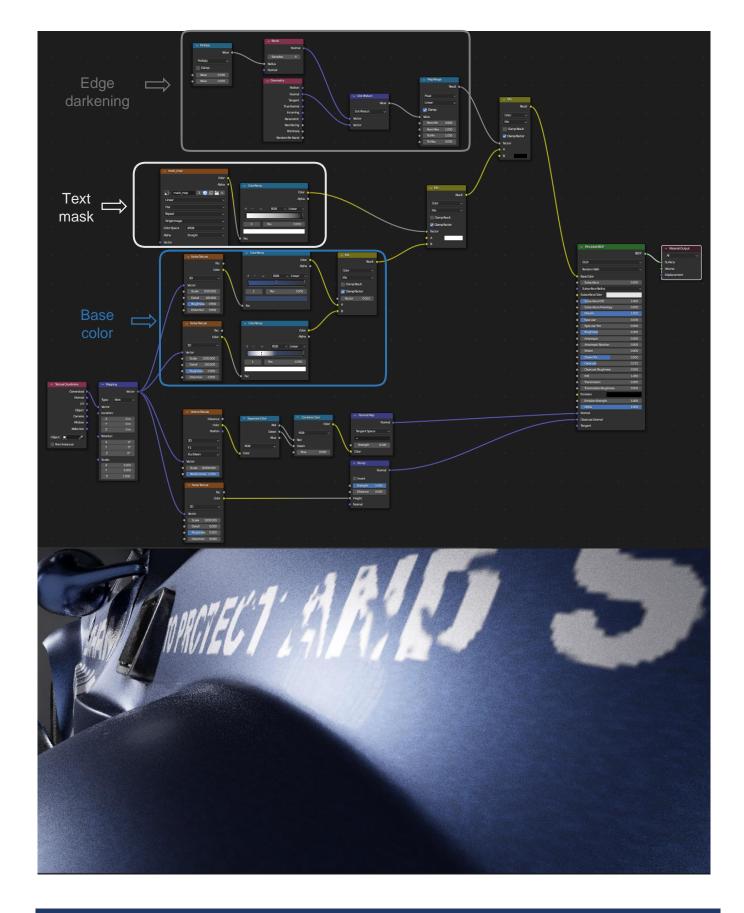
For the text on the car body I made black and white pictures in photoshop.



Then in blender I created a black map and in "texture paint" mode I used these pictures as stencil mask and applied the text to the body. That's how I got the texture mask. Then using this texture and the relevant nodes I added text to the procedural material.







## Metal parts

I have made several types of metal materials. They are all procedural and their base is taken from these tutorials: <a href="tutorial1">tutorial2</a>. Then the yellow stripes were applied to one of them. This was done in the same way as the text on the car body.

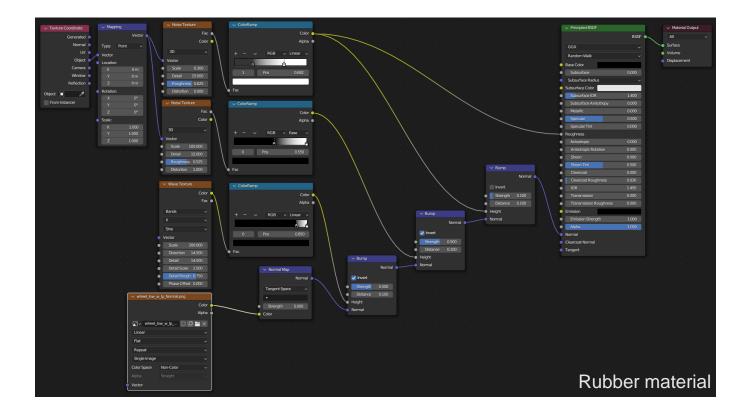


All of the metal materials were baked onto the relevant maps. Metal material

#### Wheels

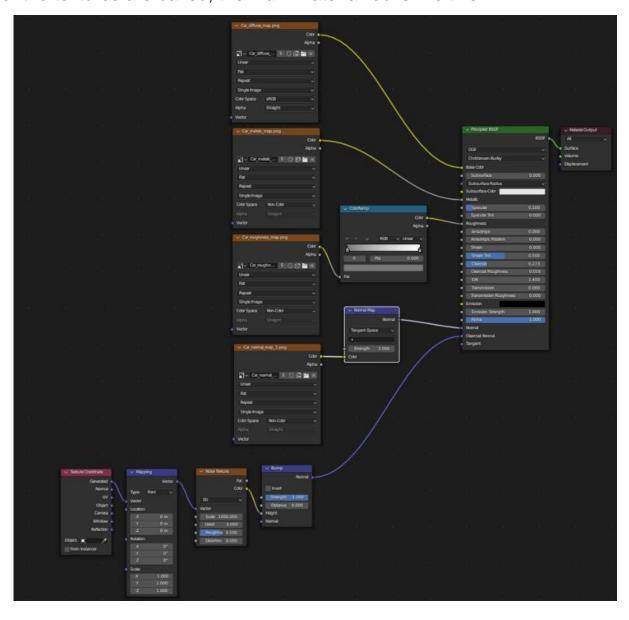
For the wheels I decided to make separate textures. I also used two materials that were already pre-made: light and dark metal. And I made a new material - rubber for the tires. I made the rubber according to this <u>tutorial</u>.





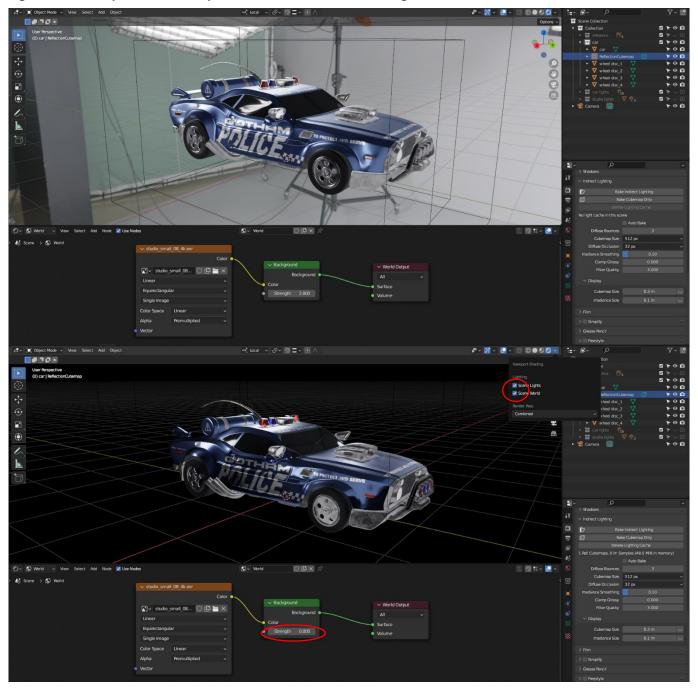
# Results

After the textures are baked, the main material looks like this:



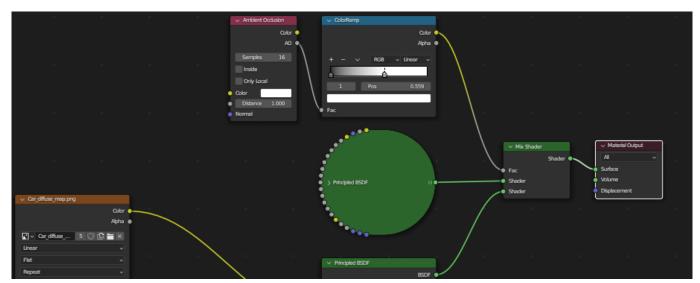
## **LIGHT PROBE**

I switched to the Evee engine. I added a light probe to the scene and baked in the light. Now my model stays lit even without the lights on.



#### **FINAL RENDER**

In the reference, the car is in dust, so I decided to add dust for the final rendering. I did this by applying a second material and the "Ambient occlusion" node. The dust appeared where there is shadow.





Dust





