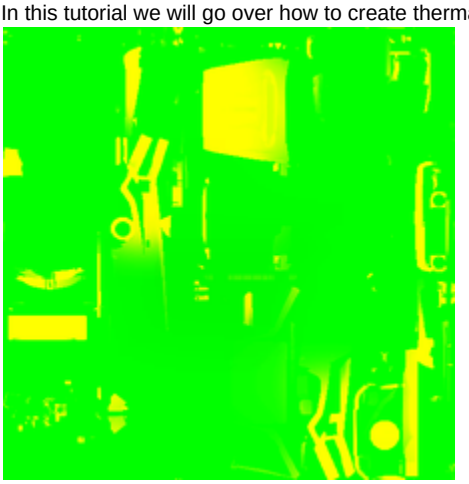
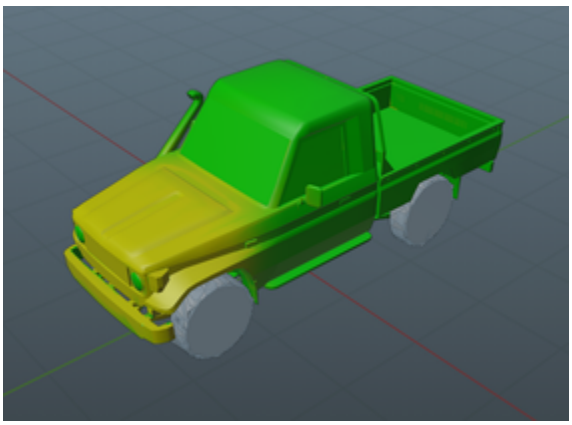
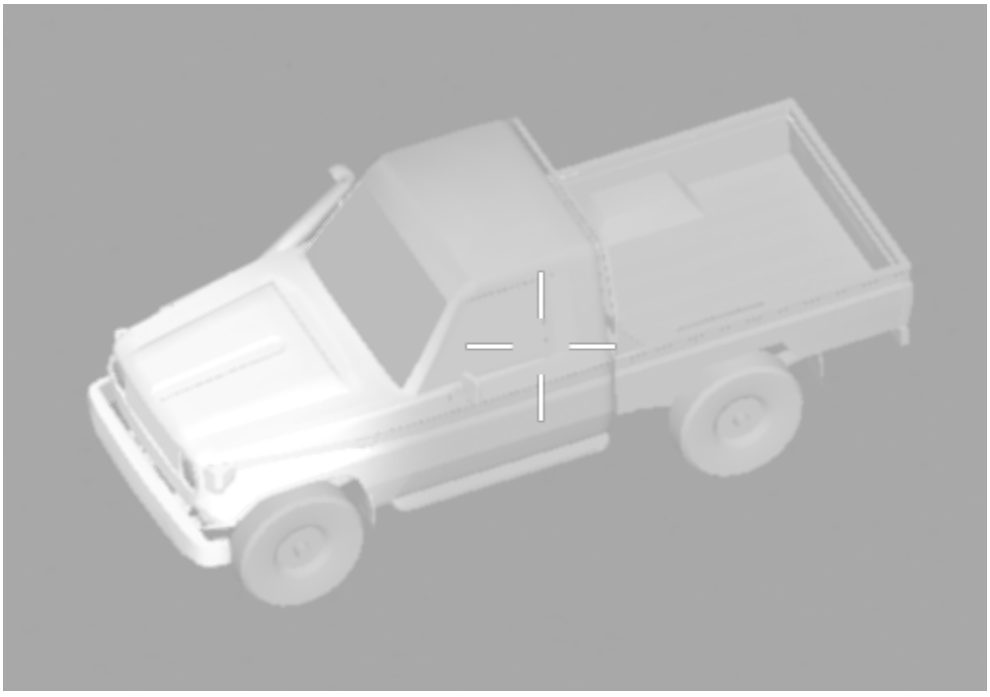
How-To Thermal Texture Painting

In this tutorial we will go over how to create thermal textures for vehicles.





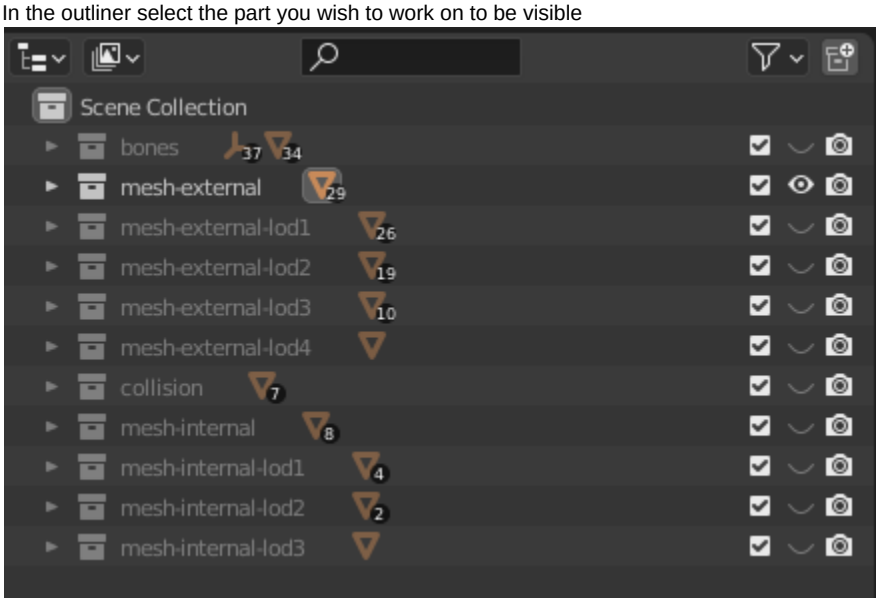


Pre-requisites

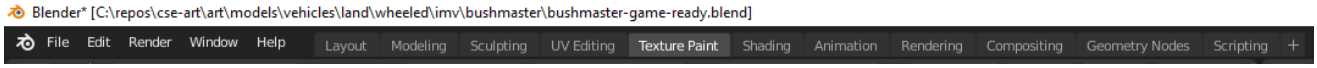
1. Blender version https://calytrixtechnologies.atlassian.net/wiki/spaces/CSE/pages/1306951906/3D+Models+Standards#Blend-File-Distinction
2. Thermal System background https://calytrixtechnologies.atlassian.net/l/c/C5vVMjHd

Instructions

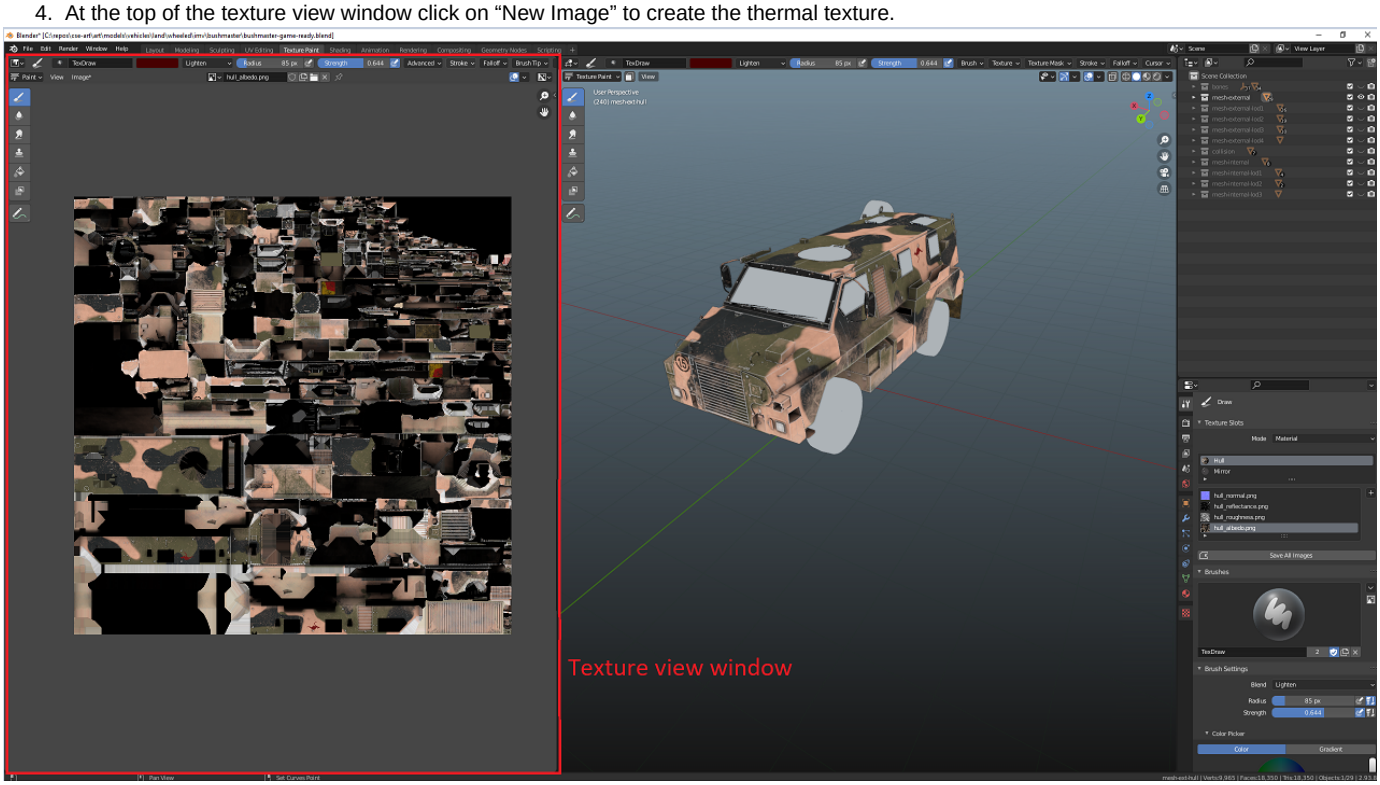
1. Open the vehicles game ready blender file
2. In the outliner select the part you wish to work on to be visible

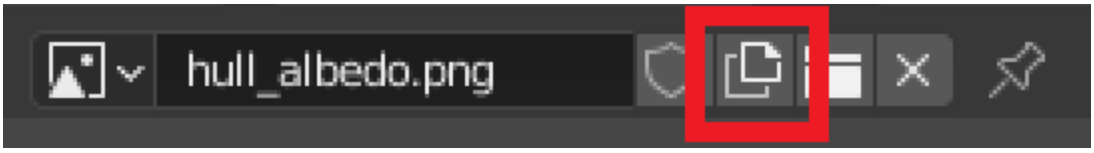


3. Select the Texture Paint workspace

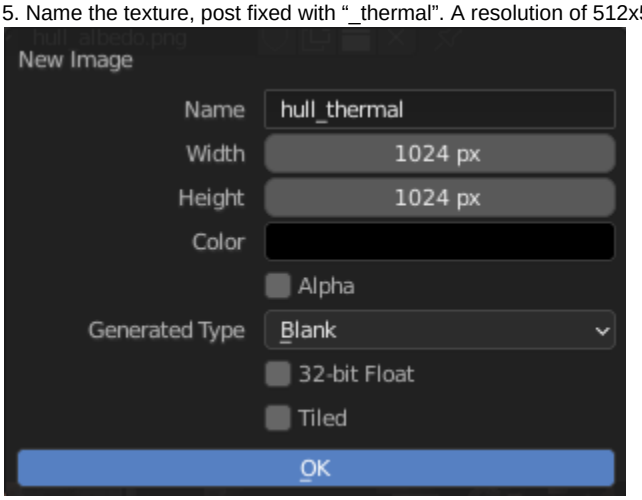


4. At the top of the texture view window click on “New Image” to create the thermal texture.

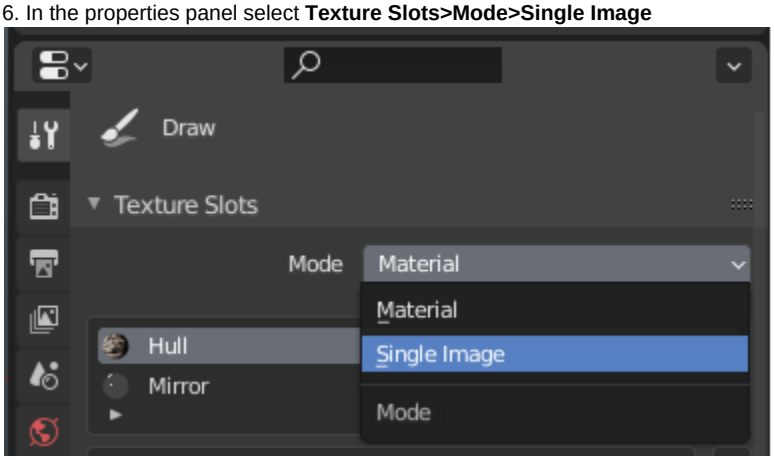




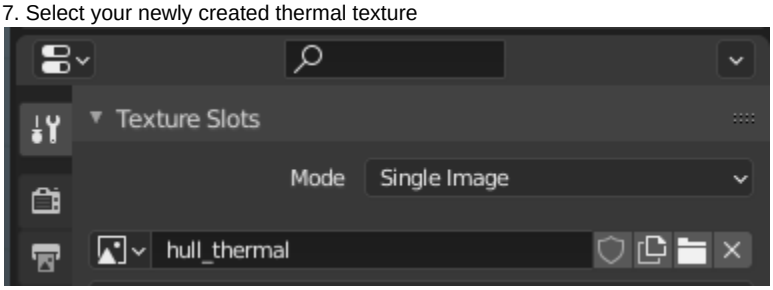
5. Name the texture, post fixed with "_thermal". A resolution of 512x512 should give enough fidelity. Disable the alpha channel.



6. In the properties panel select **Texture Slots>Mode>Single Image**

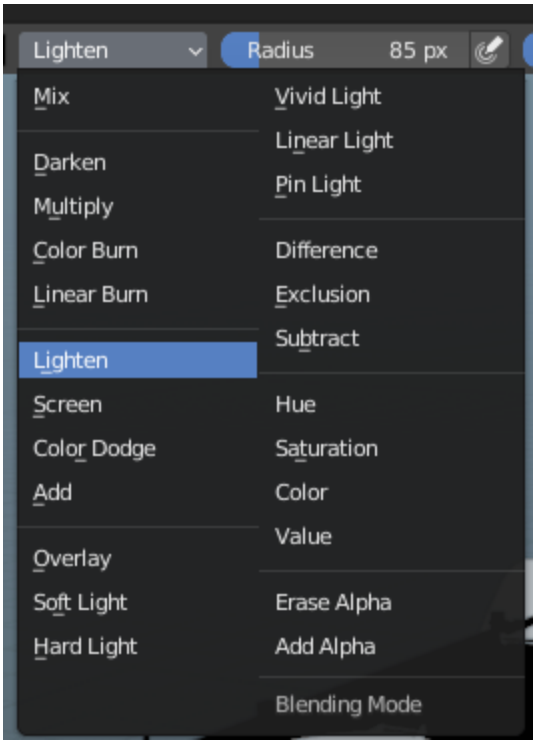


7. Select your newly created thermal texture



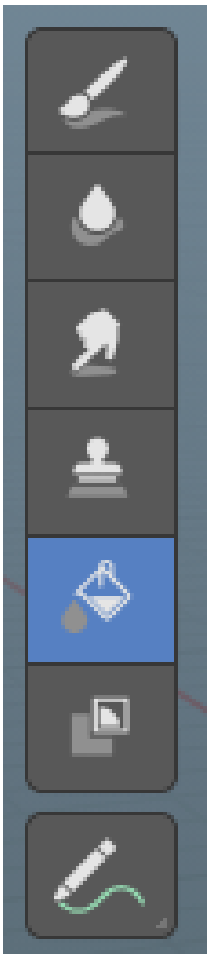
8. Select the **Lighten** blend mode. This will allow you to paint in each colour channel individually (RBG), while also deciding on a maximum brightness of a colour channel.

> "**Lighten** Looks at the color information in each channel and selects the base or blend color—whichever is lighter—as the result color. Pixels darker than the blend color are replaced, and pixels lighter than the blend color do not change." - https://helpx.adobe.com/in/photoshop/using/blending-modes.html

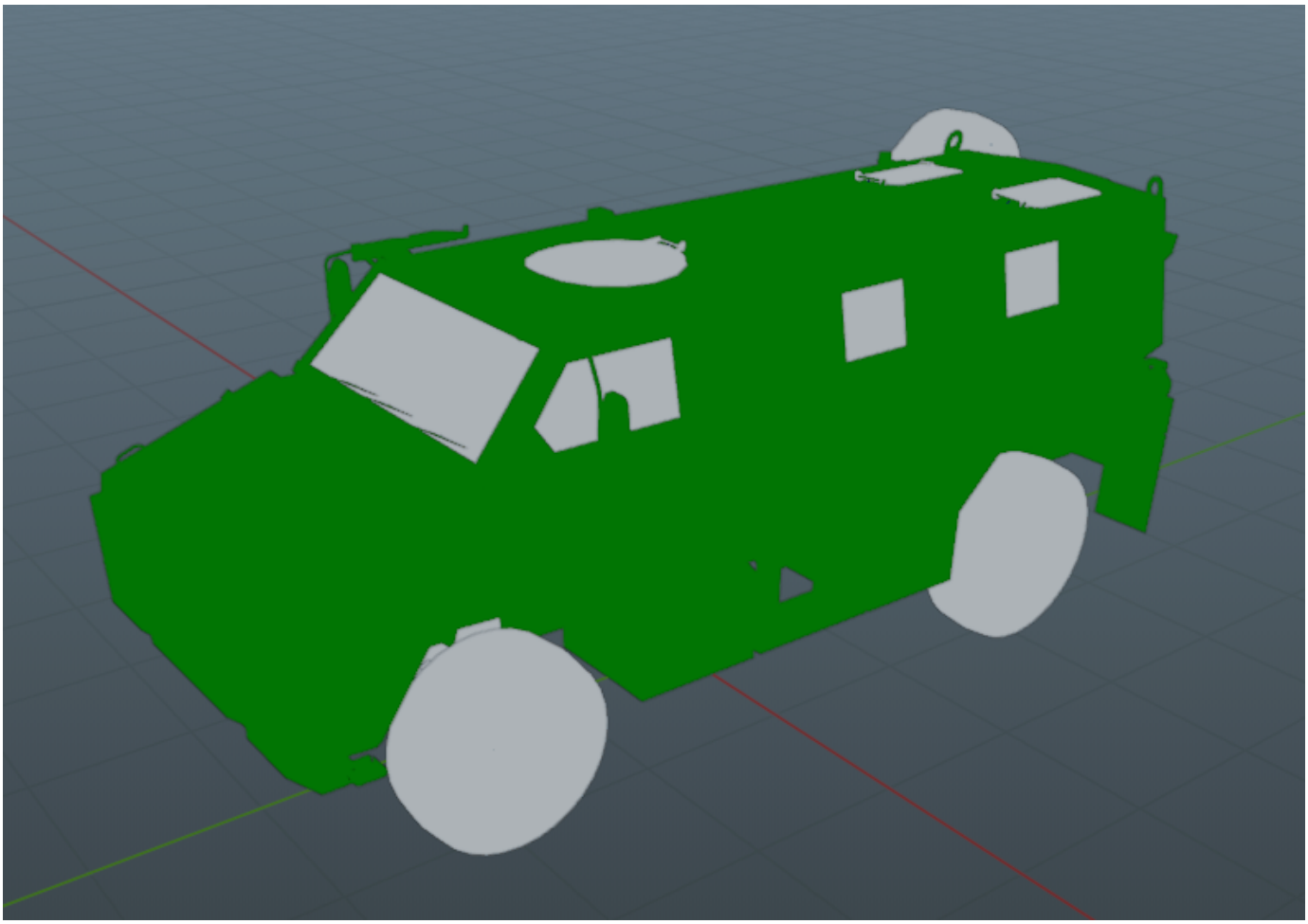


9. Select the colour picker then select RBG mode. Set the green value to 100%.

10. Select the fill tool

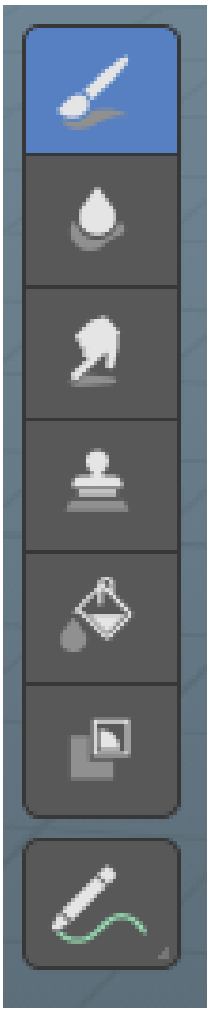


11. Click somewhere on the vehicle in the 3D view panel to paint it in the green channel

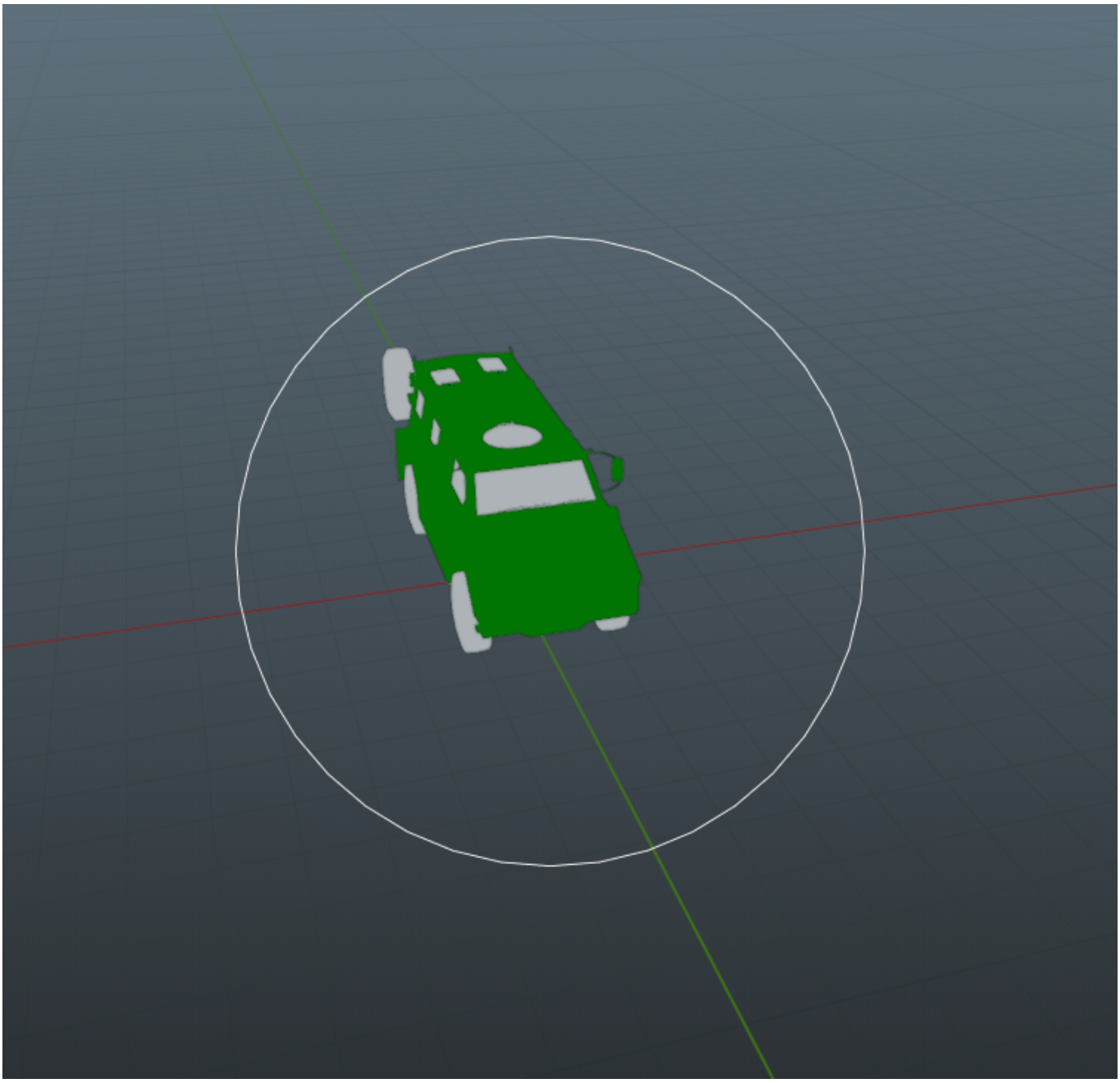


12. Set the green channel back to 0 and increase the red channel to 100% in order to paint the engine thermals

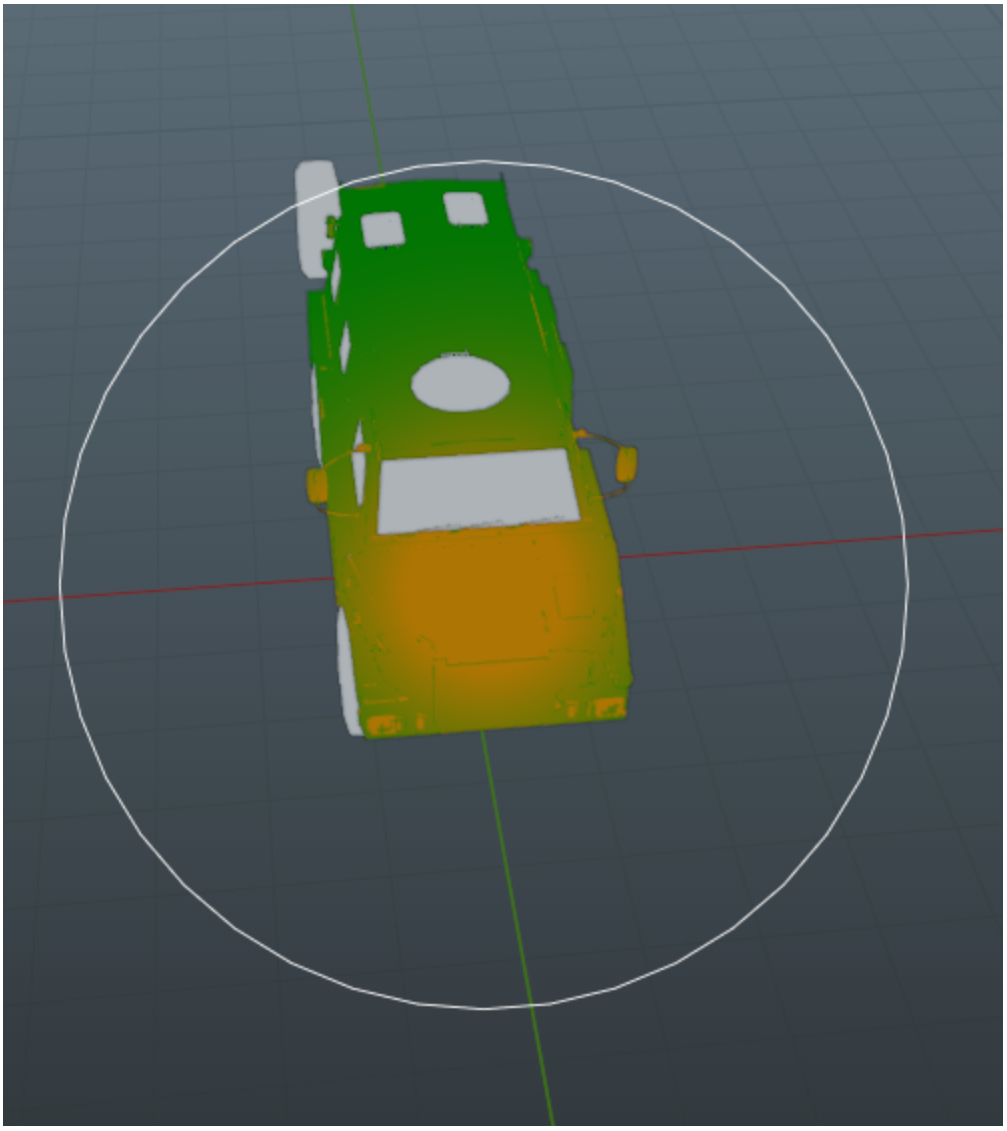
13. Select the draw tool



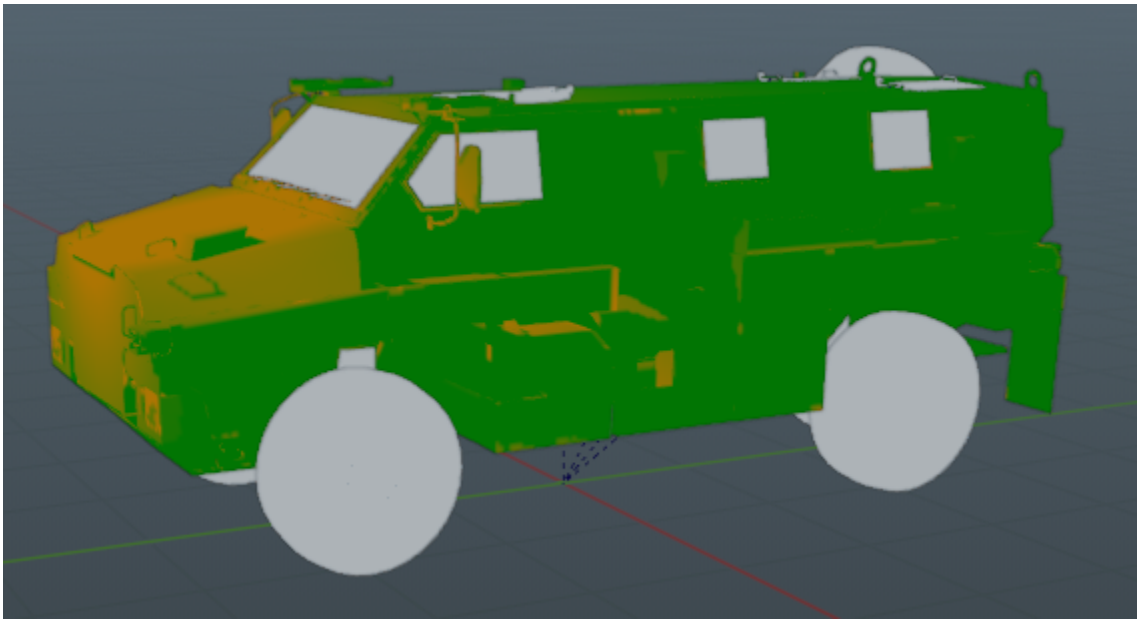
14. Increase the brush radius to a relatively large size compared to the vehicle like so. This will help with gradual fade of the engines hottest part to the outer cooler parts.

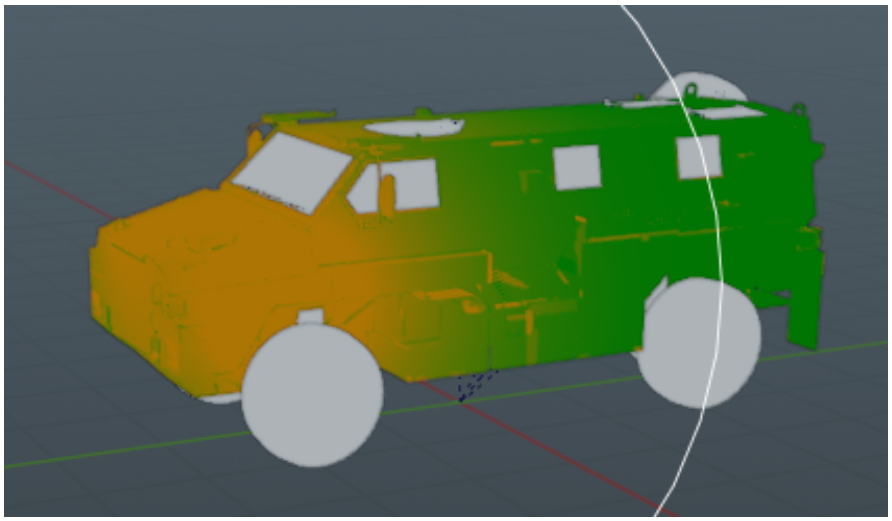


15. Apply the paint by clicking, be cautious that you do not over apply it, as this will cause the gradient to be lost



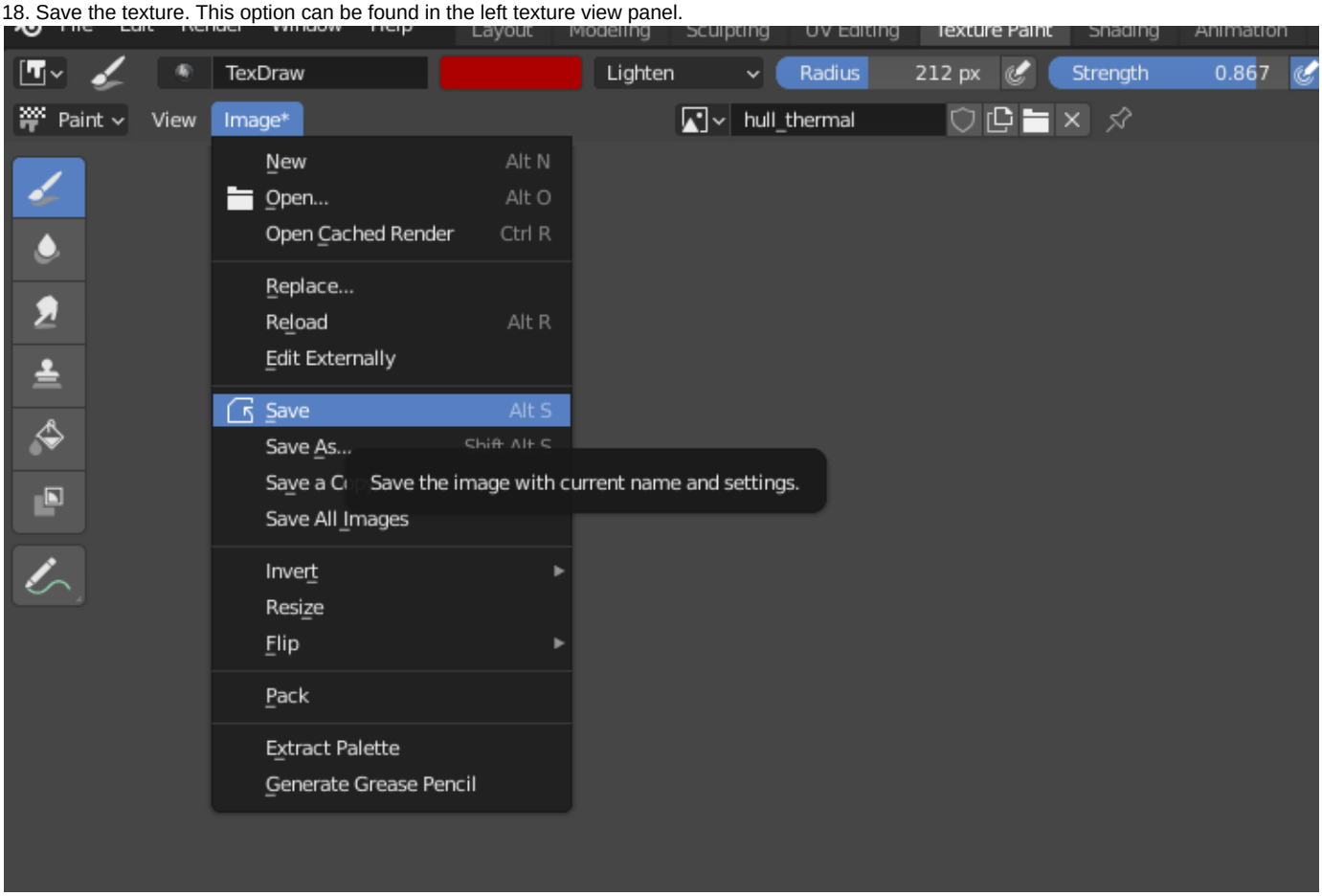
16. You will notice that areas not visible to the camera will be missed. You will need to alter the camera angle and reapply the paint to cover these areas.





17. If needed, repeat the process with the blue channel for weapon heat areas.

18. Save the texture. This option can be found in the left texture view panel.



19. The thermal image should not be linked to any materials inside Blender. The thermal texture will need to be manually linked in the Outerra material file. See Thermal Configuration in CSE - [UPDATE WITH NEW CSE STANDARDS] for more details.