

## **Final Project Proposal: “Interactive Spaceship Art”**

The objective of this project is to create an interactive system by utilizing an AI generated spaceship art which allows the user to change the specular and reflection on the body of the ship with mouse input while also portraying the fast-moving lights of the interstellar travel.

We start out by recreating our objective with Blender’s pre-built shaders.

This project aims to create an interactive system featuring AI-generated spaceship art. This system enables users to adjust the specular and reflection properties of the spaceship’s body in real time through mouse input. As users interact with the spacecraft, fast-moving light effects simulate the intensity of interstellar travel. At the same time, the shader dynamically adapts to increase speed, amplifying the sensation of high-velocity motion.

Starting with a prototype using Blender’s pre-built shaders, this project aims to bring the spaceship to life by blending interactive controls with realistic reflections and lighting. The result will be a visually engaging, interactive experience that bridges static art with the immersive feel of space exploration.



Fig 1. Reference Art generated by AI.



Fig 2. A simple mask can be created to isolate the spaceship

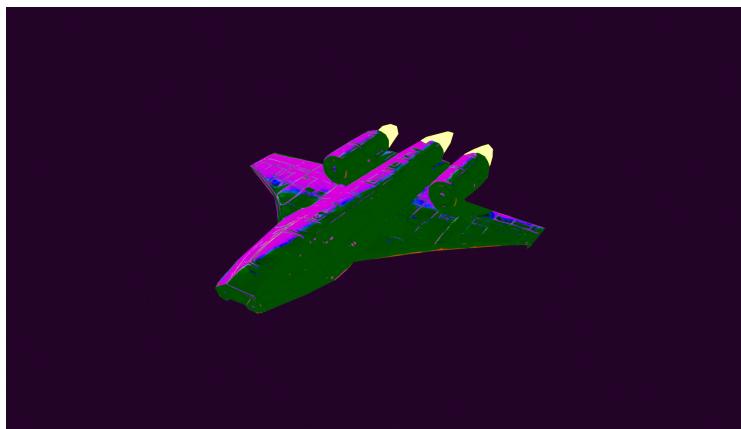


Fig 3. Rough Normal map generated with Blender



Fig 4. The normal map and the image combined with the mask to create this effect in Blender

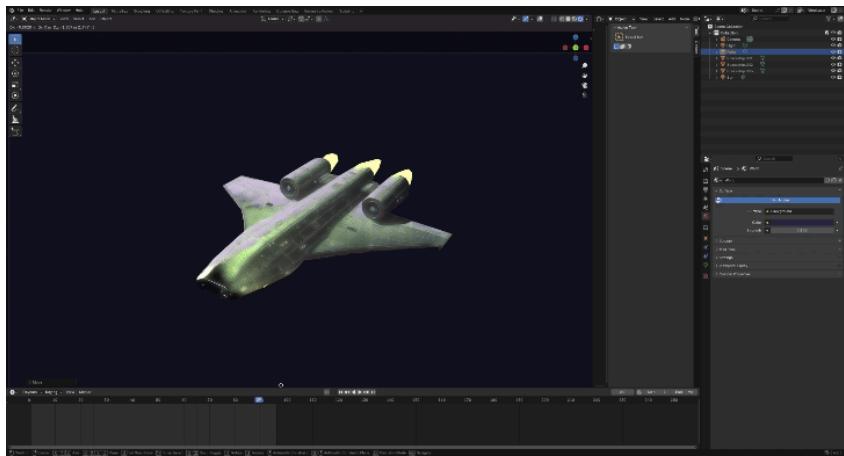


Fig 5. Above Image reacting to Blender light

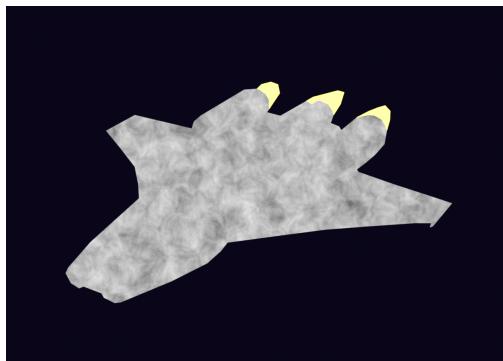


Fig 6. A noise map generated and multiplied with the mask



Fig 7. The above noise map combined to create this noisy light effect (Using Blender shaders and lights)

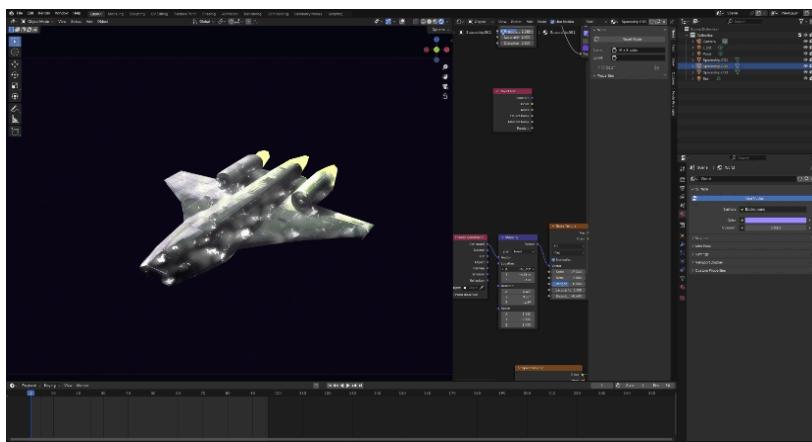


Fig 8. By animating the noise texture, we can portray the moving lights to establish the interstellar travel effect.

**Our Final goal is to recreate this effect with Shadertoy/WebGL by building custom shaders.**