

Project Proposal: Martian House and Solar System Adventure

Objective:

This project aims to create a 3D OpenGL scene featuring a Martian house inhabited by a robot named "The Wild Robot." The scene will also include a Solar System with a basic orbital representation and a helicopter that "The Wild Robot" uses for interplanetary travel.

Project Scope:

This project will include:

1. **House on Mars:**
 - Simple geometric structure (a box for the main body, cones or spheres for decorations, etc.).
 - Elements that indicate a "Martian" atmosphere, such as reddish textures or sand-colored ground.
 - Basic lighting setup to simulate Mars' ambiance.
2. **Robot(obj file):**
 - Simplified, boxy robot model using basic shapes (spheres for heads, cylinders for arms, etc.).
 - The robots will have simple animations, such as rotating heads or moving arms.
3. **Helicopter:**
 - I will reuse the sample helicopter model from a previous project, adding textures to make the aircraft appear more realistic.
 - Basic helicopter structure (cylinder body, rotor blades).
 - The helicopter will have simple up-and-down movement to show "takeoff" and "landing."
4. **Solar System:**
 - Basic planets (spheres of different sizes and textures).
 - Orbit paths for a few key planets (e.g., Earth, Mars, Jupiter... 8 planets).
 - Rotations for planets to simulate orbiting and spinning.
5. **Camera Movement:**
 - Simple camera movements to view the Martian house, robots, and Solar System.