Project A: Circling Plane and Ground Radar

Qing Lin, QLK2773

User's Guide

This project shows a scene with two "kinds" of objects, plane and radar. The plane is circling on the sky and rotating around the radar to avoid being locked on. The radar is scanning the sky by rotating the frame and flipping the panel to locate any object.

Get Started

1. Is recommended to use a Windows or Linux system.
2. If you see this report, you already have downloaded the QingLin_ProjA.zip file and extracted it.
3. Directly open the index.html file within the same directory where this report belongs to with a modern browser (IE is not modern anymore!)
4. Now you should be able to see a webpage and a canvas with blue background and two objects within.

Control

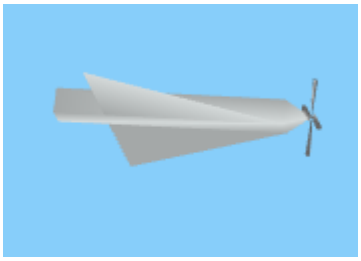
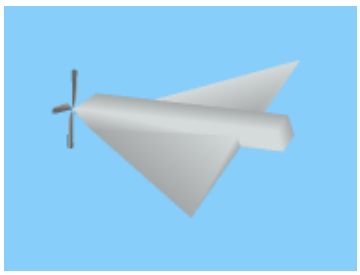
The instructions listed all the operations you can take to interact with these objects, including:

1. Change the aspect of the canvas by dragging you mouse
2. Change the speed of the plane by pressing "Up" (↑) and "Down" (↓) button on the keyboard
3. Change the moving angle range and the moving aspect of the radar panel using the slider
4. Turn on/off radar panel and frame by click the button at the bottom of the screen.

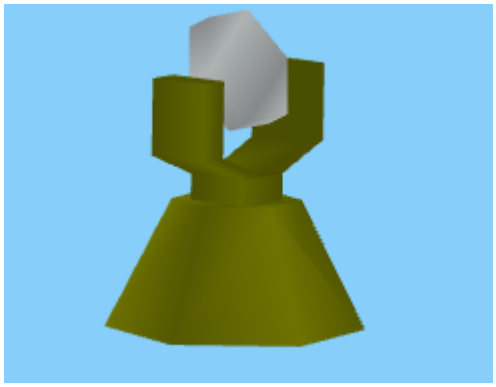
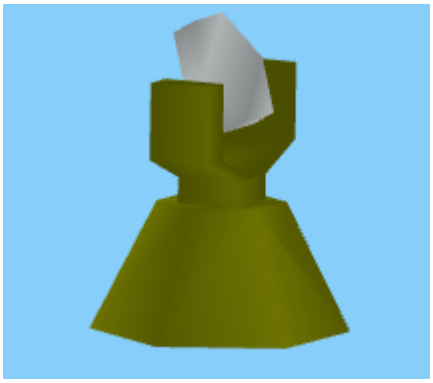
Results

Objects

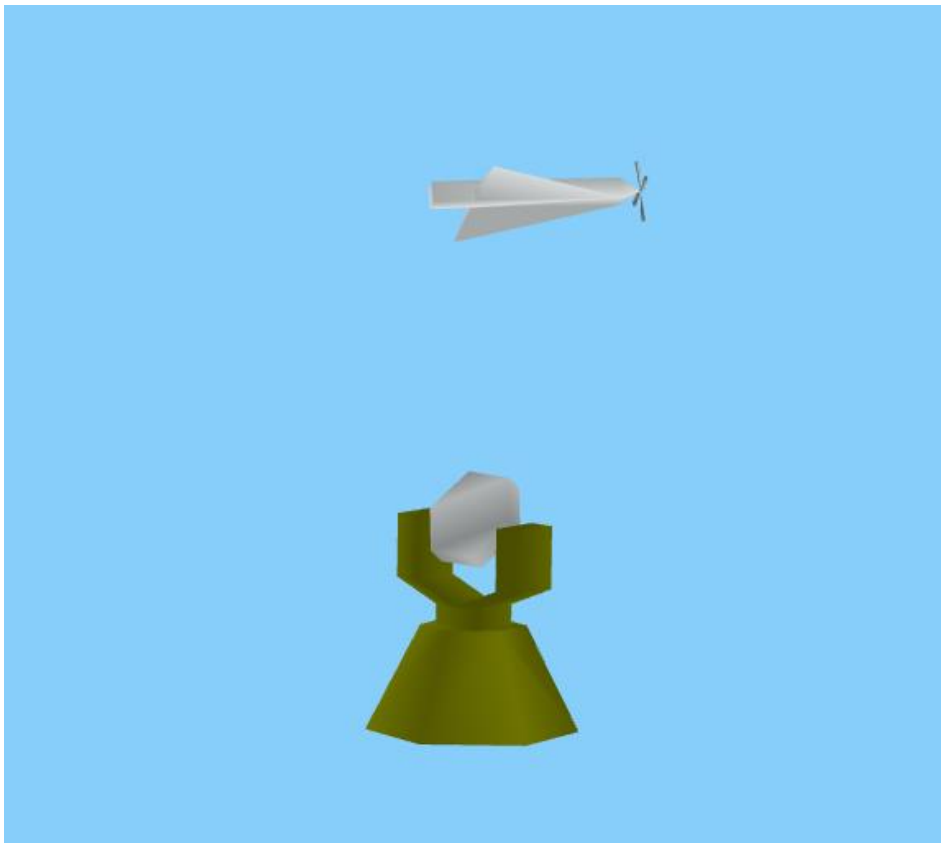
This is the Plane. It is built from two shapes: Body and Paddle. On the tip of the body, four paddles are placed around to take the plane to fly. This object is colored by 3 different grays.

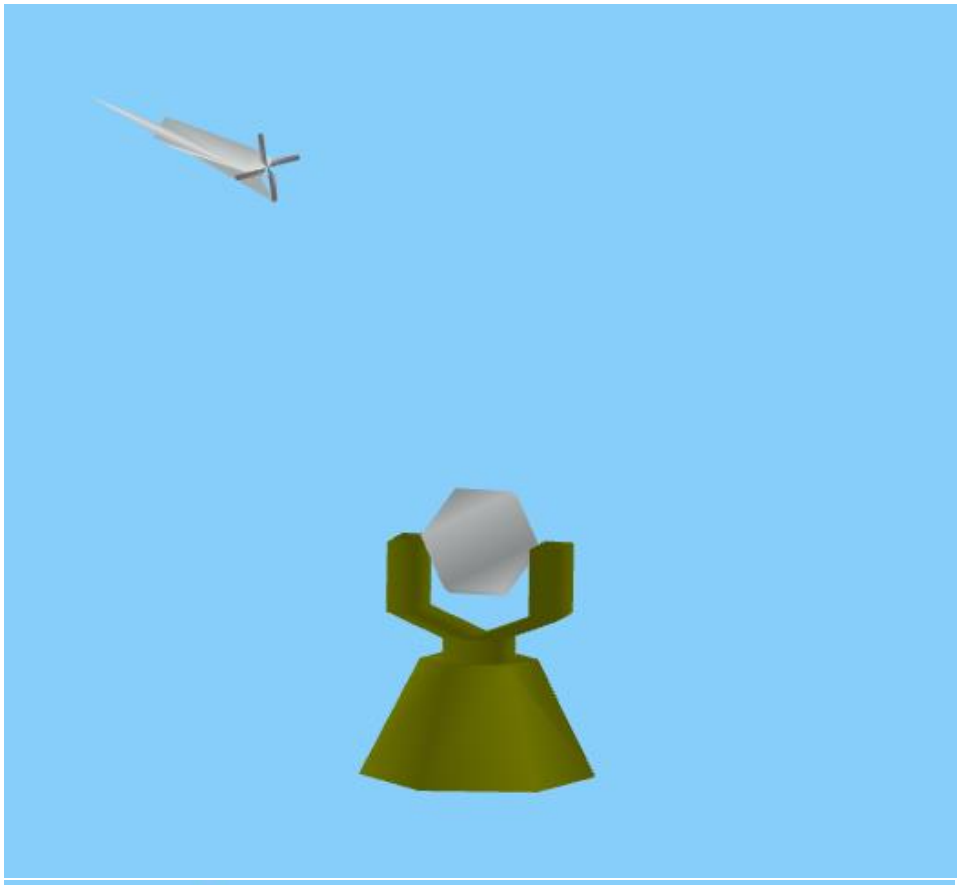



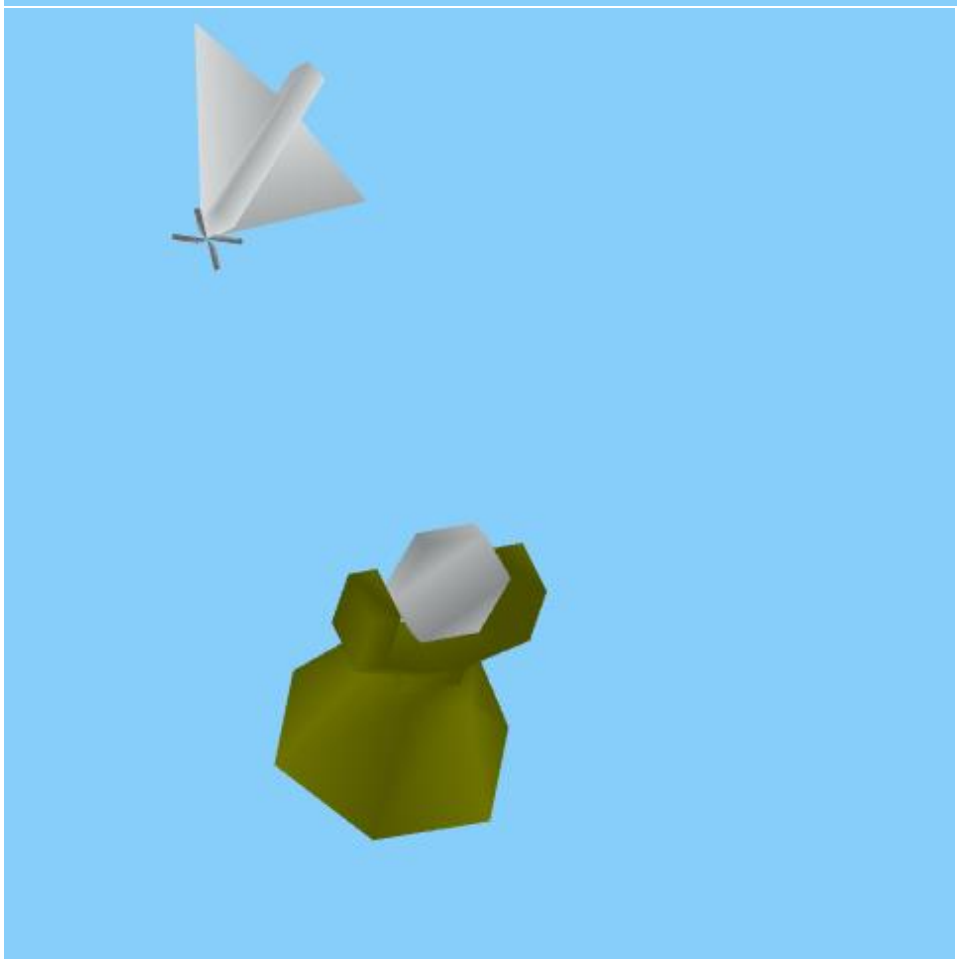
This is the Flat Panel Radar. The gray radar panel is held by the radar frame. And the frame is rotating upon the basement. This object is colored by 2 different grays and 2 different greens.

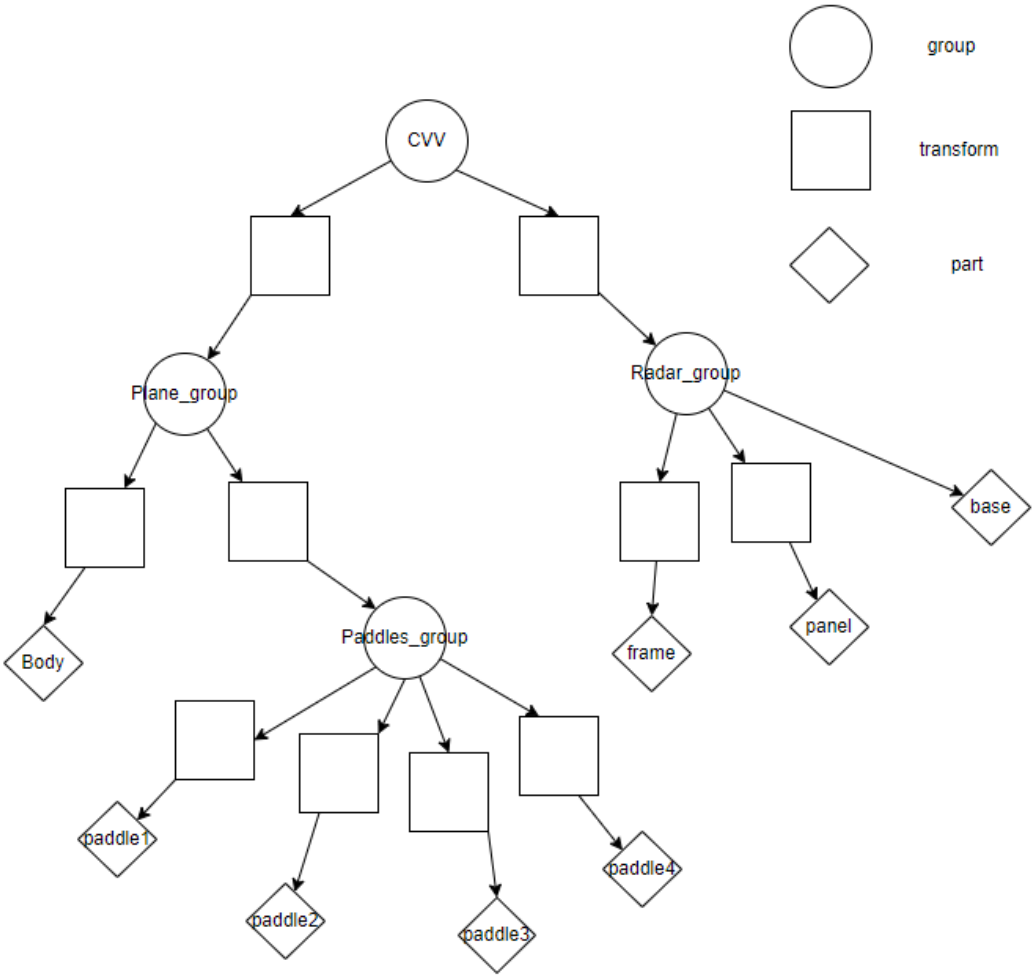
Whole scene







Scene Graph


group
transform
part
CVV
Plane_group
Radar_group
Body
Paddles_group
frame
panel
base
paddle1
paddle2
paddle3
paddle4