

Name: Chih Hsuan Huang

ID: 934554197

Email: huanchih@oregonstate.edu

video link: https://media.oregonstate.edu/media/t/1_bfm5qwz8

CS 450/550 -- Fall Quarter 2024

Project #2

Animate a Helicopter!

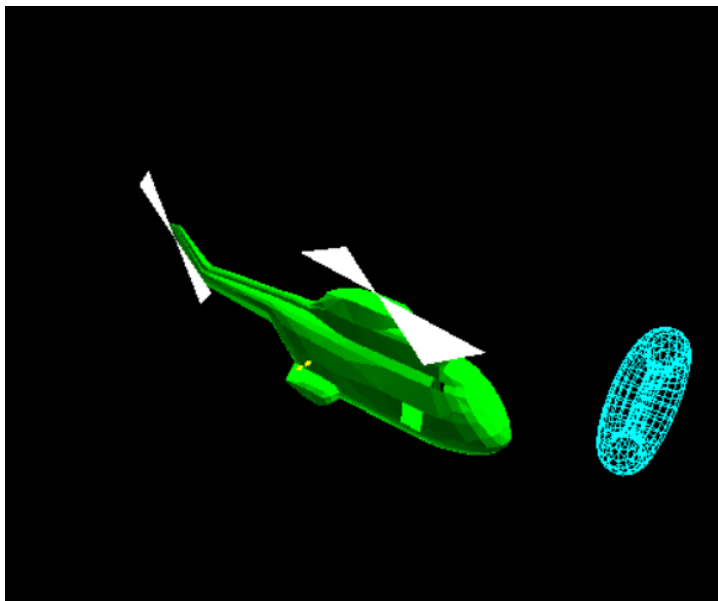
Description

I use the provide code drew the helicopter body, including two blades, one blade on top of the helicopter and one tail blade at the rear. The size, position, and rotation speed of both rotors are set according to the project requirements.

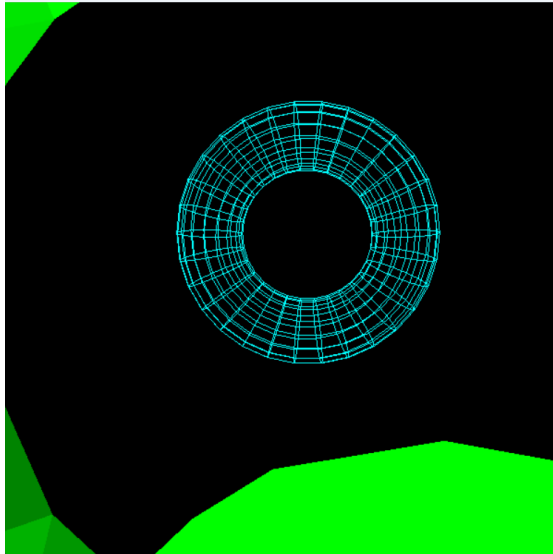
Position

`gluLookAt()` is used to set the camera position and viewing direction. The outside view will apply rotation and scaling transformations, while the inside view only sets the viewing matrix without rotation and scaling.

outside view



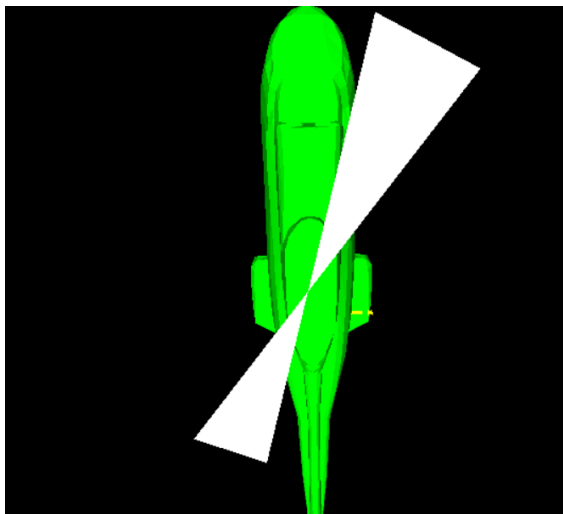
Inside view



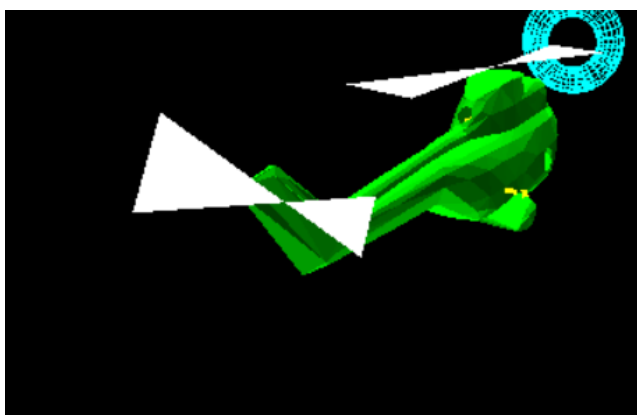
The outer ring is drawn by `glutWireTorus()`, which draws a wireframe ring.

Blade

Use `glRotatef(3600. * RotationTime, 0., 1., 0.)`; to rotate the top blades



Use `glRotatef(2. * 3600. * RotationTime, 1., 0., 0.)`; to rotate the tail blade, and the speed is 2 times that of the top



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