

Graphics Assignment 2: Jet Simulator OpenGL 3D Game

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Running game:

./run.sh

Game Controls:

Camera Views:

- 1)Plane view : **P**
- 2)Top View : **T**
- 3)Tower view : **Y**
- 4)Follow-cam view : **F**
- 5)Helicopter-cam view: **H** - lets you observe the plane with the camera on a sphere of constant radius around the jet, looking at the centre of the jet.
Clicking and dragging will let you move the camera around on the sphere.
Scrolling will change the radius of the sphere.

Plane Controls:

- 1)ROLL: **A** to roll Left and **D** to roll Right
- 2)TURN: **Q** / **Left arrow** to turn left and **E** / **Right arrow** to turn right
- 3) ALTITUDE CONTROL : **Space Bar** to increase and **S** to decrease
- 4) ACCELERATION : **W** / **Up** arrow to increase speed and **Down** arrow to decrease.
- 4)Drop bomb: **Right Click**
- 5)Shoot missile: **Left Click**

Game Features:

- 1)Circular Ring Checkpoints with cannons below them.
 - Cannons around checkpoints fire bullets which on hitting the plane destroy it.
 - Jet can destroy cannons with bombs/missiles.
 - Next checkpoint : one with a red arrow vertically above it.
 - Completed checkpoints appear in green.

2)Volcanoes

-- Above volcanoes,till a certain height the game ends ; NO FLY ZONE.

3)Parachutes

--Can be shot to gain points. Do this fast as they keep falling downwards.

4)Fuel ups: Increases fuel to maximum, Running out of fuel finishes game.

5)Smoke Rings : Passing through which increases points

6) Dashboard : Top left- Score, Top right - Altitude, Bottom left - Speedometer, Bottom Right- Fuel tank.

Game Bonus Implemented:

1)Dashboard Compass: Functional Compass which points towards the north direction.

2)Special stunts like barrel roll can be performed.