

Aircraft System

Essential Requirements

- Project's implementation should be done using Modern OpenGL pipeline taught in the labs.
- Your project should have the following features:
 - 1) A well designed code is essential.
 - 2) A textured skybox for the project's environment. (Choose appropriate texture for the sky and the runway).
 - 3) Use and manipulate a camera to move on the runway and fly as discussed in the 6th lab "First Person Camera" lab.
 - 4) Scene lighting: a **light source** is required in the aircraft itself.
 - 5) Load basic models (a **cube for the aircraft body and 2 cones for the wings**) with appropriate material.
 - 6) Apply a third person camera.
 - 7) You must handle the keyboard keys in order to move the aircraft on the runway and make it takeoff and fly for a certain period and then return back to the runway smoothly.

Bonuses

- 1) Load other models for the airport building and other aircrafts in the runway and avoid collision between the main aircraft and these objects.
- 2) Create at least one animation that starts and ends during flying (ex: make the aircraft swing).
- 3) Multiple light sources in the runway.
- 4) Insert sounds for aircraft movements.
- 5) Build a more complex environment.