

# 3-D Fighter Plane Game

## Control s

- W and S to move plane forward and backward.
- A and D to tilt (roll) the plane.
- Q and E to rotate (yaw) the plane.
- Up and Down arrow keys to pitch the plane.
- Left mouse click to fire missiles.
- Right mouse click or B key to drop bombs.
- V to change camera.
- T to perform a stunt (roll in a spiral motion).
- R to perform looping-the loop stunt.
- Y to perform Barrel roll stunt.
- Hover around to see the plane from different directions and scroll to zoom in and out (in the helicopter view).

Goal of the game is to complete checkpoints. To complete a checkpoint, player has to destroy the cannon at the checkpoint.

## Features

- ◆ **Plane** : Black-grey colored plane. Can fire missiles and drop bombs. Moves with a speed according to pressing keys. Have an upper limit to speed. Air drag acts on the plane. Plane can move up to a certain extent.
- ◆ **Missiles** : Go in the direction plane is facing when it fired the

missile and go in the straight line.

- ❖ **Bombs** : Go in vertically downward direction (gravity acts on it). Also has the speed in horizontal direction same as the speed of plane.
- ❖ **Volcano** : Destroys the plane if plane comes closer to it. Cannot be destroyed.
- ❖ **Mountains** : Has no effect in game. Only for view.
- ❖ **Water** : If plane enters water, it is destroyed.
- ❖ **Parachutes** : Comes at random time. Can be destroyed using missiles and bombs. If destroyed, gives bonus points to player.
- ❖ **Smoke rings** : Comes at random time. If plane goes through this, then player gets bonus points.
- ❖ **Checkpoint** : Player needs to complete 5 checkpoints in order to win the game. Each checkpoint has an enemy cannon. Complete the checkpoint gives some score to the player.
- ❖ **Cannon** : Present at each checkpoint. Active only for the current checkpoint. Can be destroyed by missiles and bombs. Fires missiles towards the player's plane. Reduces some hp of the plane if hits.
- ❖ **Fuel** : Plane has limited fuel capacity. Reduces each time plane moves forward or backward but remains same if plane is still in air.
- ❖ **HP** : Plane has limited hit points. Reduces if plane comes in contact with water or comes close to volcano or gets hit by cannon missile.
- ❖ **Dashboard** : Shows plane status. Bottom left shows hp (green) and fuel (red). Bottom middle shows score. Bottom right shows compass (Red pointer for direction plane is facing and vertically upwards is north direction). Top right shows altimeter and top left shows speedometer.

- ❖ **Powerups** : Red powerup for filling the fuel tank of plane and green one to increase the plane's hp.
- ❖ **Camera Views** : Have 5 camera views ->
  - **Follow Cam** : Camera follows the plane.
  - **First-person view** : View the pilot of the plane sees.
  - **Top view** : Viewing the plane from the top.
  - **Tower view** : Viewing the plane from a tower (from an angle).
  - **Helicopter View** : On hovering the mouse, plane can be seen with different angles. On scrolling, zoom-in and out can be performed.
- ❖ **Stunts** :
  - **Barrel roll** : Plane rolls (one complete revolution) while moving.
  - **Looping-the-loop** : Plane pitches (one complete revolution) while moving.
  - **Roll in spiral** : Plane rolls (one complete revolution) as well as moves in a spiral trajectory.
- ❖ **Sound effects** : Have some sound effects when plane is moving, when launches missile or bomb and when missile/bomb hits a parachute/checkpoint.