



**School of Computer  
Science & Engineering**

**LAB – FILE**

**Graphics and Animation Tool**

**CSGG4101**

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Course – B. Tech. CS-OSOS

Batch – 2

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Submitted To – Dr. Durgansh Sharma

## **EXPERIMENT – 7**

### **Objective :- Design of 3D Rocket using Blender.**

This experiment is to design a 3D- Rocket on the Blender Platform.

Steps to be followed or designing 3D- Rocket:

1. Open Blender, and we need to clear everything already on the interface, start with a clean slate.
2. Create a new file, and right click to find Mesh, click on the Cylinder option and add it to the Interface. Add 15 faces to the cylinder and scale it according to your preference.
3. Add a loop cut in the middle of the cylinder and extrude it a bit higher.
4. Extrude the lower part of the rocket and Scale it to look like a circular slab to make the rocket stand on the plane.
5. Bevel the lower part to make the curve surface on the rocket.
6. Add Subdivision Surface modifier to the rocket to look like more realistic such as curves on the body of the surface.
7. Now add a cube to make the pillars of the rocket.
8. Scale the cube and add loop cuts to it. Scale from the loop cuts to make the surface of the cube as the stand of the rocket.
9. Bevel the cube and add Subdivision Surface modifier.
10. Now apply the mirror modifier to the stand object and duplicate it to make the remaining pillars.
11. Add a Sphere in the add Mesh section and scale it to fit to the side of the rocket to make it look like a window.
12. Add material to the sphere and color the sphere.
13. Add another cube to make the sender and receiver device to the rocket.
14. Add material to the cube and color the cube.
15. Now add a small cube to the bottom part of the rocket and make the cube a wireframe.
16. Now add a Beizer Curve from the center of the small cube to the main body of the rocket.
17. Make the curve look like a power supply unit and fuel unit to the rocket.

18. Now again apply the mirror modifier to the curve object and duplicate it to make the remaining curves.

19. Now add a small cylinder with 6 faces to the center of the rocket and rotate it to look like a screw tied to the body of the rocket.

20. Now duplicate the screw cylinder to fit the complete 360 angle of the rocket.

21. Now come to the shading tab add new material to the main body of the rocket. Add color to the material.

22. Repeat step -21 for all the different objects of the rocket.

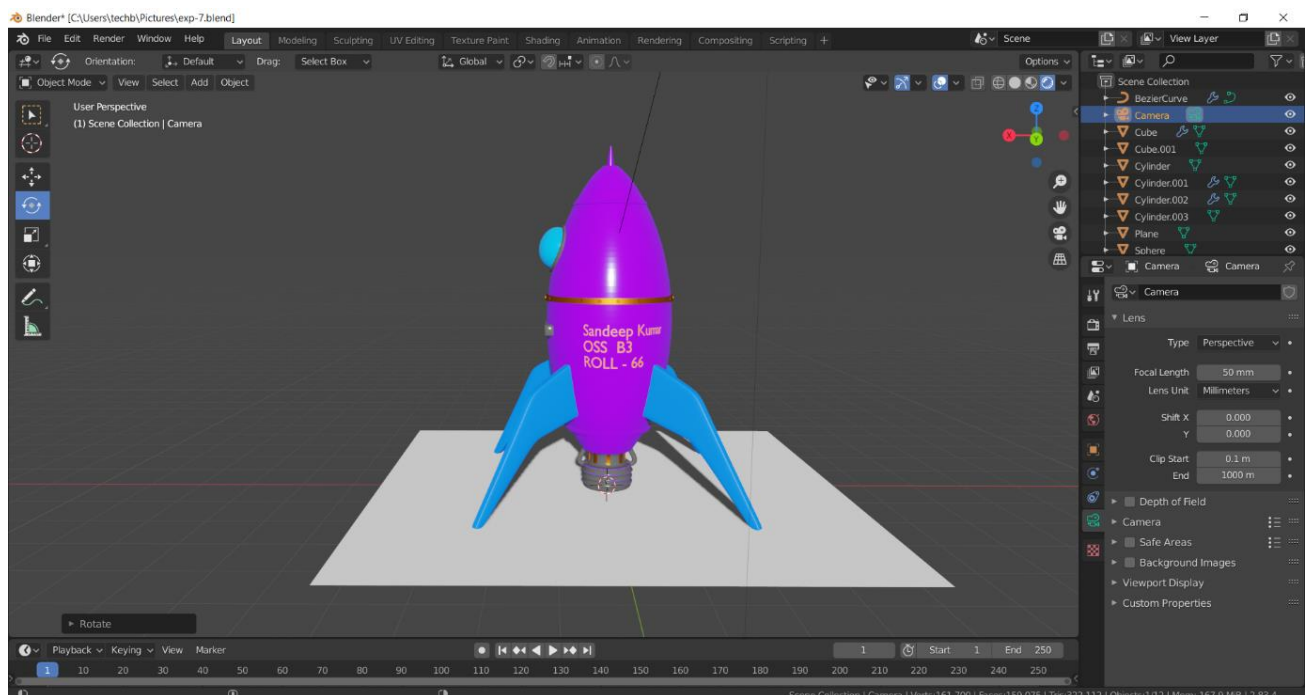
23. Finally add a light source and add a plane on which the rocket is standing.

24. Now add a camera to render the hut and make the camera to rotate around the hut in a circle. To implement this add a circle around the hut and scale the circle to get the complete view of the hut. And the camera to the circular path and focus the camera to the center of the Hut.

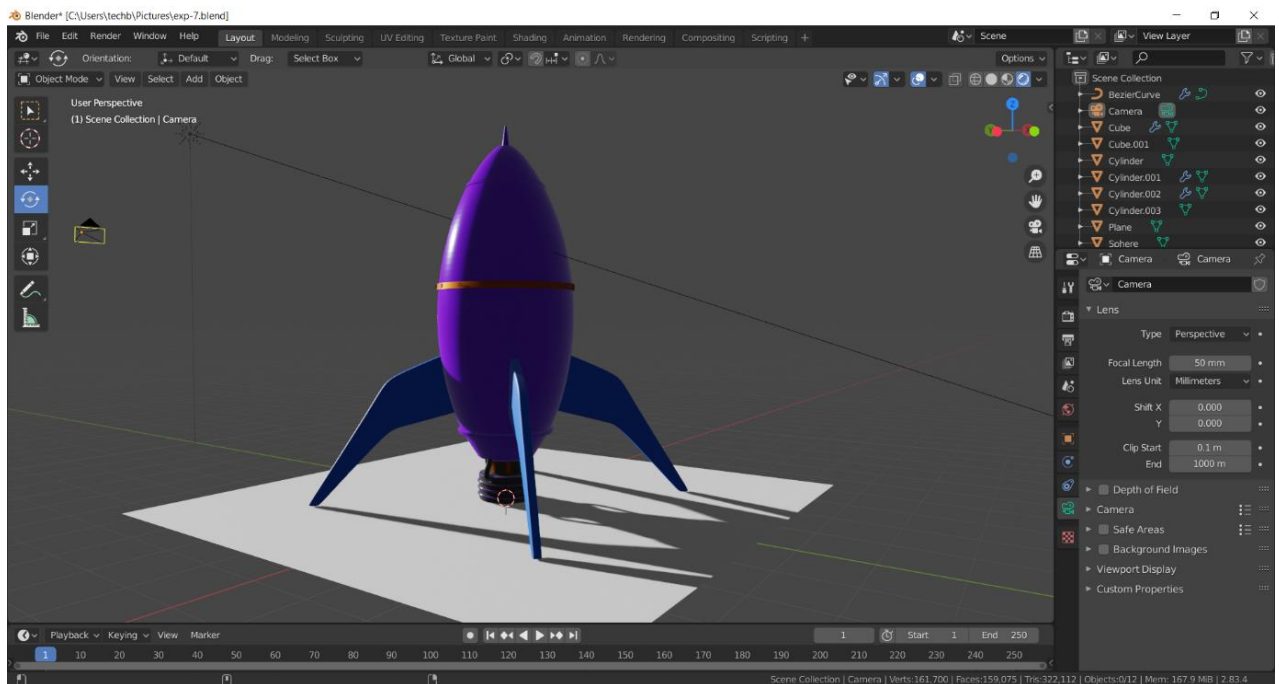
25. Now save the .blend file to your local memory and render the file in Render Image tab.

## SCREENSHOTS:

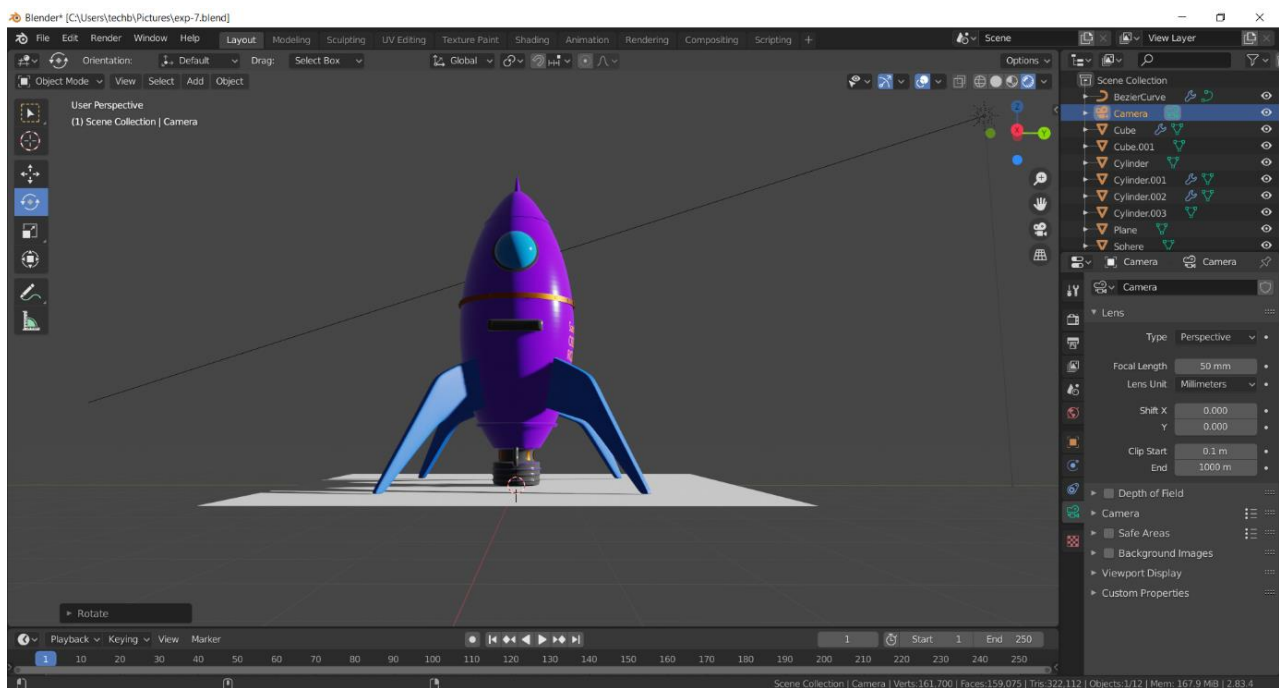
### 1. Front View:



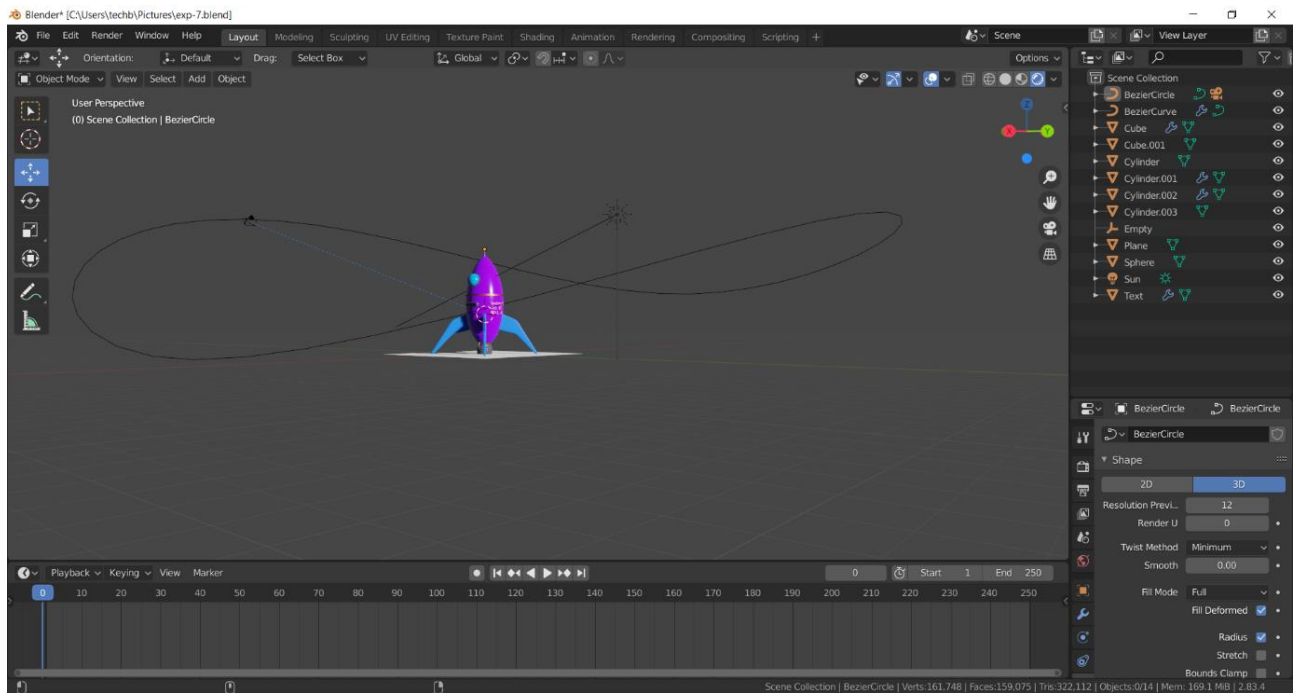
## 2. Back View:



## 3. Side view:



#### 4. Complete view:



**DRIVE Link -**

<https://drive.google.com/drive/folders/1vOwiPrUxDE7oW8StmQG80QFRSncDxVm?usp=sharing>