

Project B, Random Shapes 3D Motion View Report

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1. User Guide

a. User Control

- i. This program would allow users to change parameters on several parts.
- ii. Users can control the spinning speed for all of the objects by clicking the “Spin <<” and “Spin >>” or “Run/Stop” after “Cylinder spin”.
- iii. They can also use “Spin <<” and “Spin >>” or “Run/Stop” after “Ear(Spheres)Spin” to control the first joint speed of the big sheep-like object.
- iv. They can use Mouse Drag to control that object rotation.
- v. The mouse position is shown on the screen
- vi. You can also clear the mouse drag by clicking the clear button underneath it.
- vii. WSAD keys are able to control the camera forward, backward, left, and right.
- viii. Up, Down, Left, Right arrow keys can control the camera tilt angle.

b. Viewport

- i. The left is perspective view
- ii. The right is orthographic view
- iii. It's looking through an angle of 35 with the camera position at (0,0,0) and eye position at (0,3,3). If you wish to change you can go to code “BasicShapesCam.js” and change lines 69-71.

2. Basic Introduction

The initial view(Figure1) vs the tilted and repositioned view(Figure2) on both perspective and orthographic viewport.

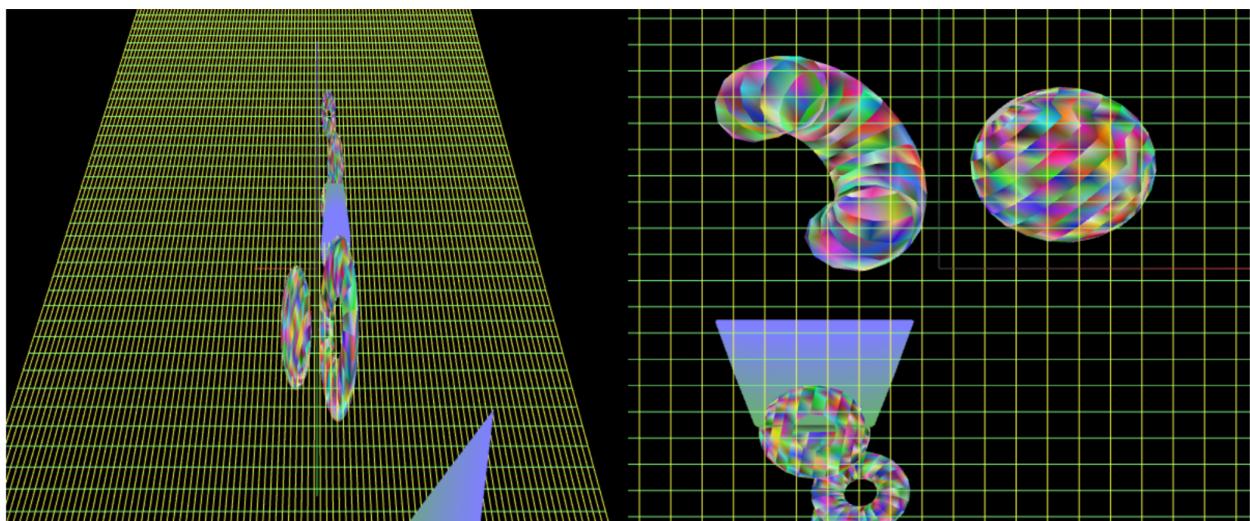


Figure1

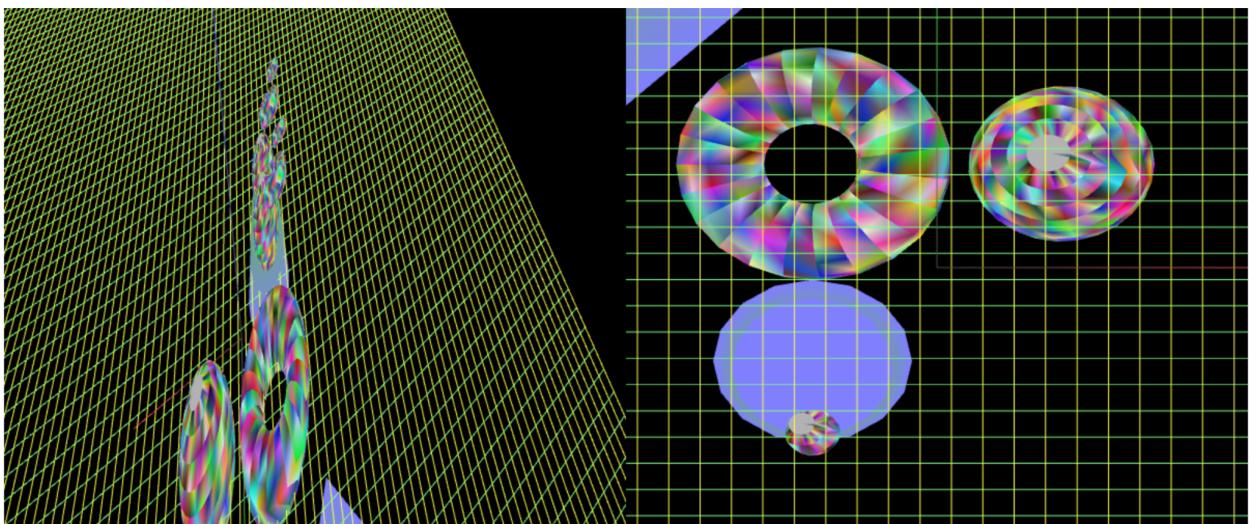


Figure2

Mouse drag rotation on sheep-like shape. Original(Figure3) vs after drag(Figure4)

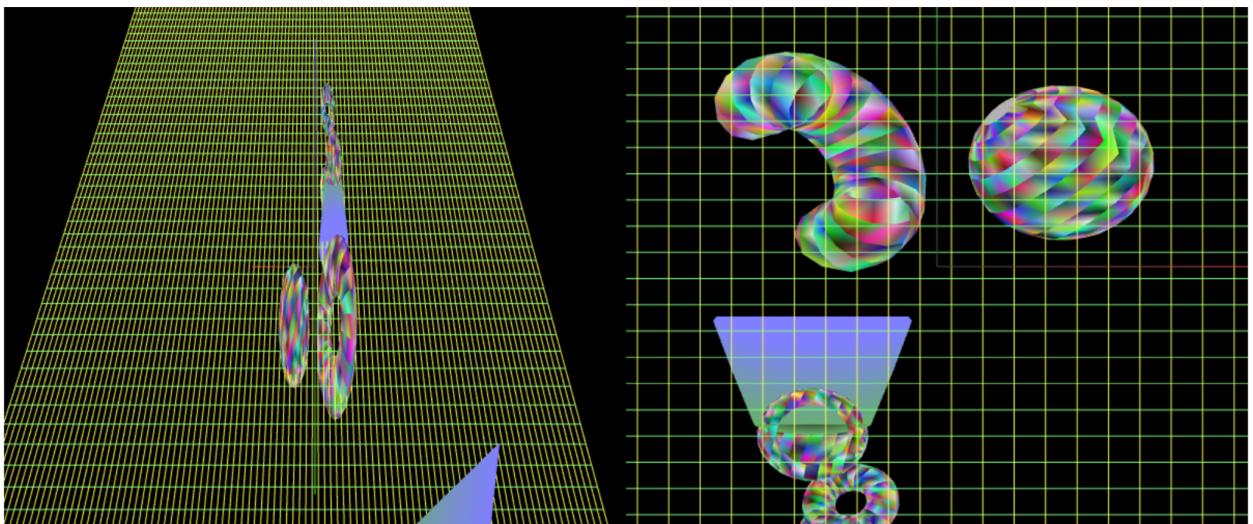


Figure3

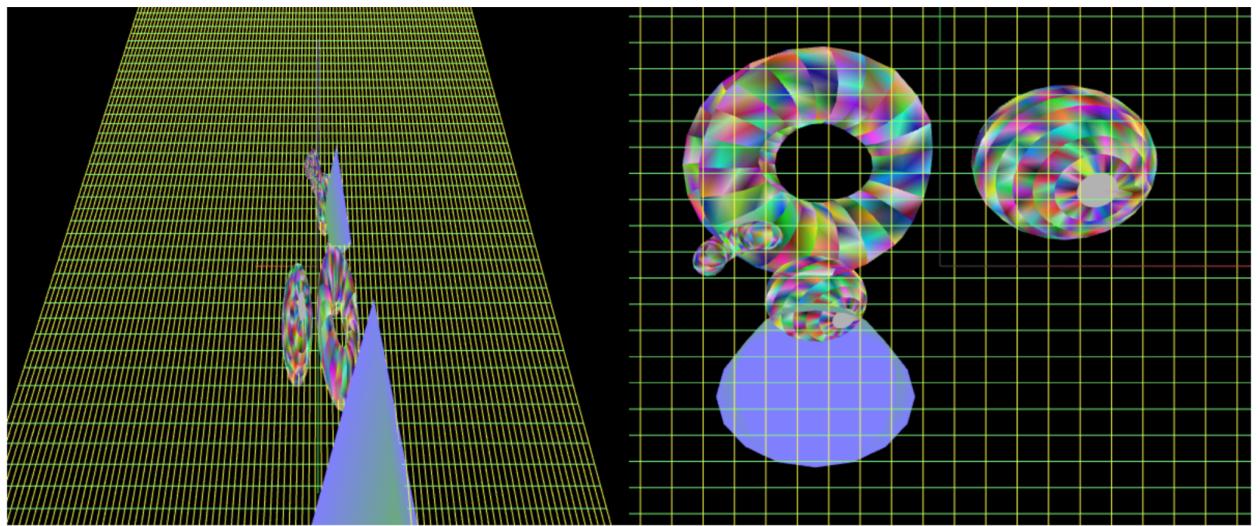


Figure4