

Project B: Funny camera

Wenhan Deng

wda3966

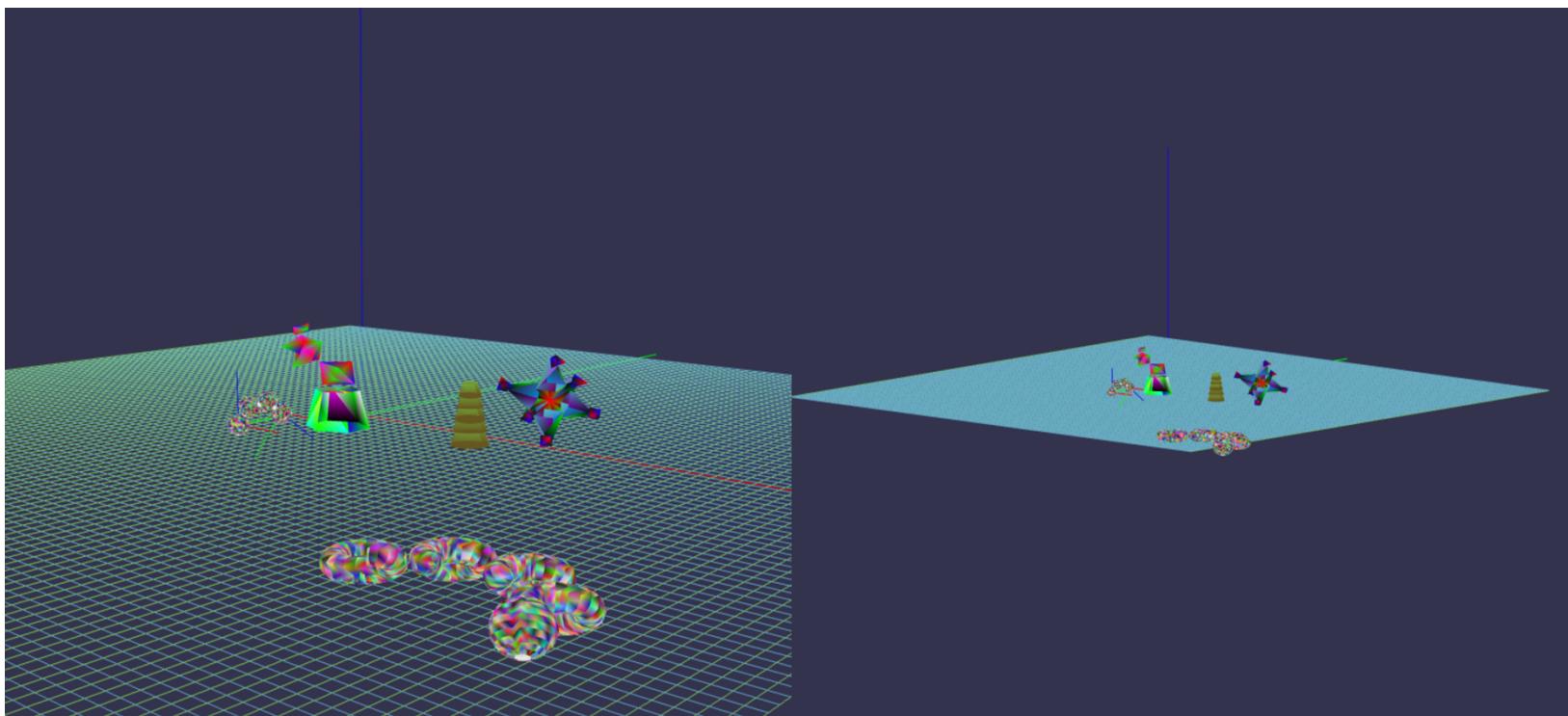
This project B: Funny camera demonstrate a few 3D assemblies including the gems tower, accumulated spheres, torus, space stations, and the brown tower on the grid. All these assemblies are composed by multiple 3D jointed parts and there are either continually rotated or shifting around different drawing axes. There are also few axes been explicitly drawn out. (The blue line represents the z-axis, the green line represents the y-axis, and the red line represents the x-axis). Two separated view ports show both the perspective and orthogonal camera which depict the same assemblies from different ways.

User Guide:

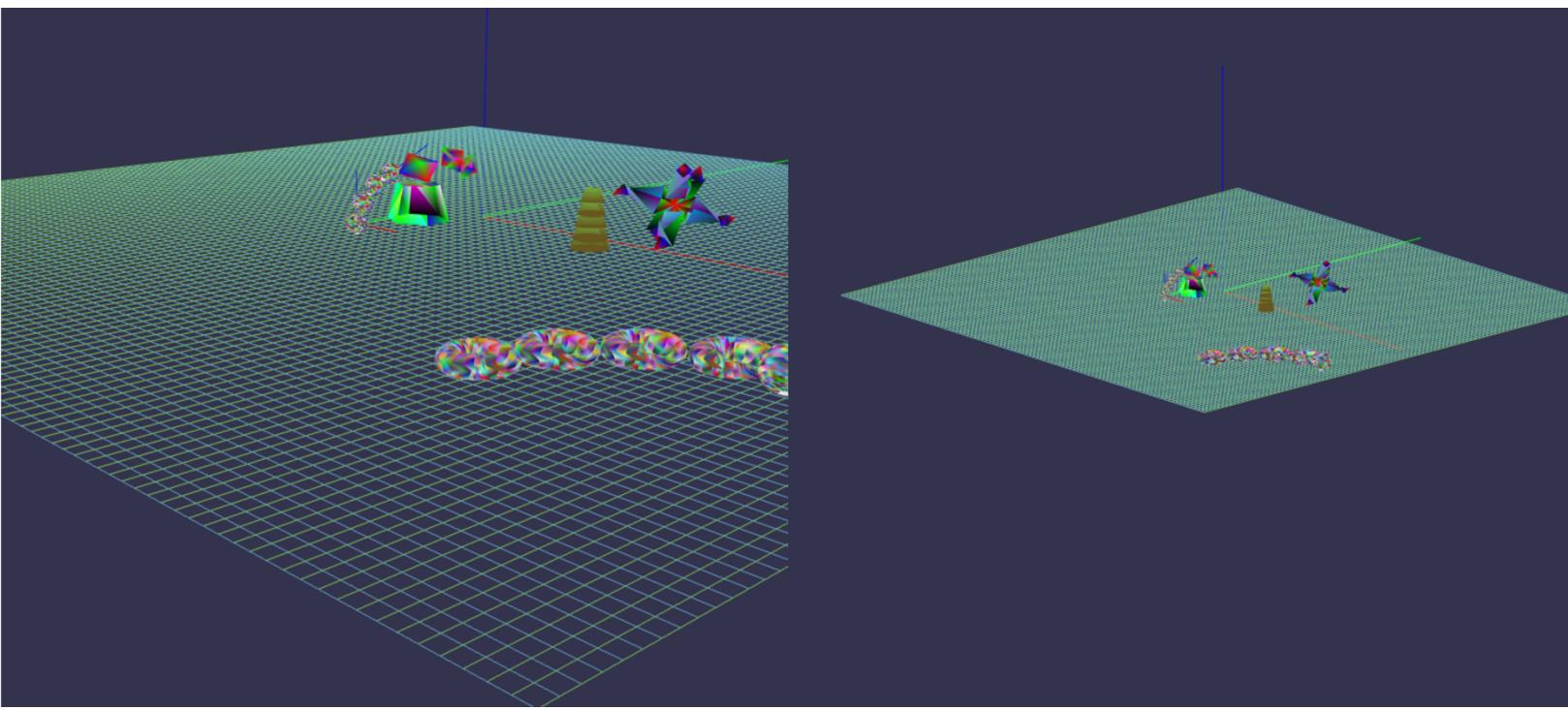
The perspective and orthogonal cameras initially were placed on the location ($x = 7.375579238401635$, $y = -7.77124752565902$, $z = 2.301515759411268$) and looking at the point ($x = 4.071411392510663$, $y = -4.07978187395098$, $z = 1.461037596438066$) with the orthogonal vector pointing to the positive z direction. By pressing the W A S D keys, user can freely change the look at direction, however, in this case, the camera itself (eye position) won't move. By pressing the arrow keys,

the user can move the camera position to anywhere they want (The look at direction won't change). Moreover, the user can also interact with the specific assembly by their mouse and adjust the spinning pattern of some assemblies by pressing P key.

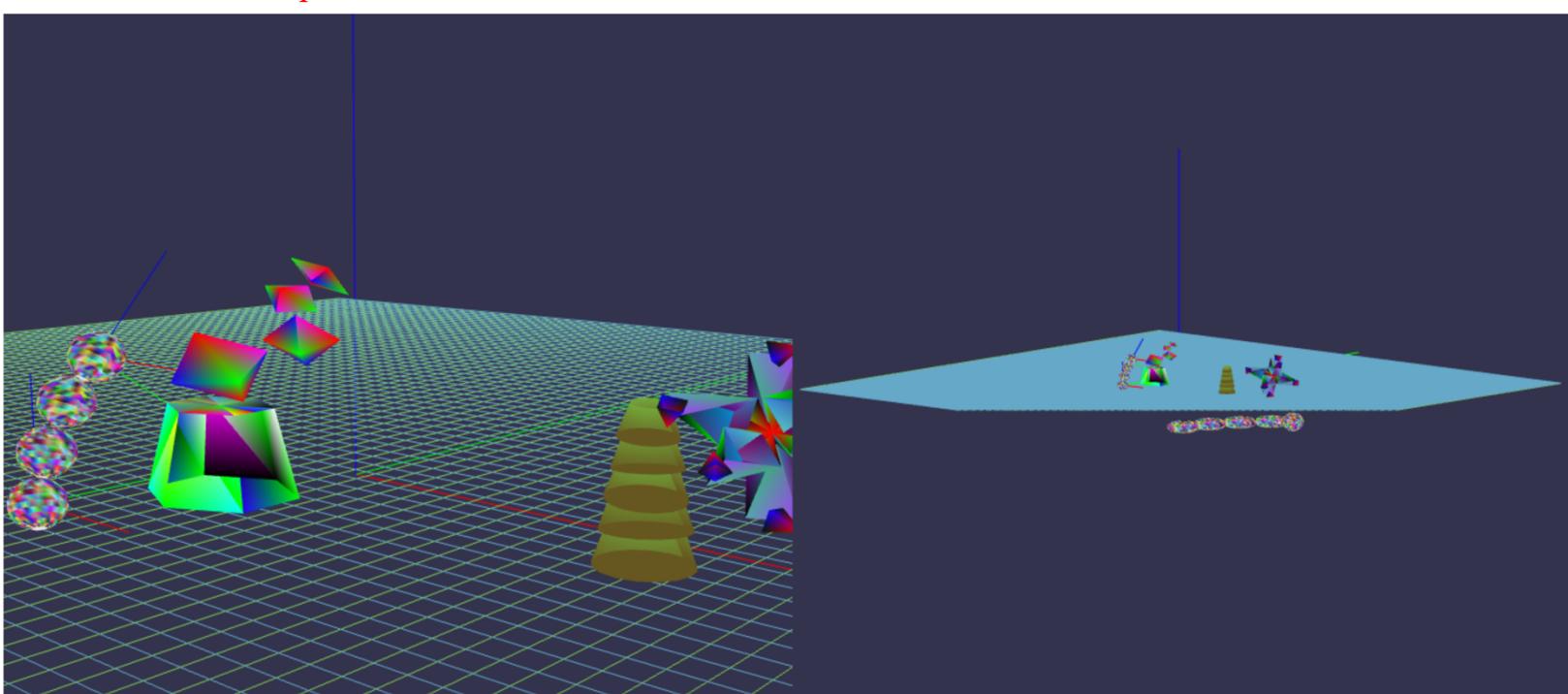
Result:



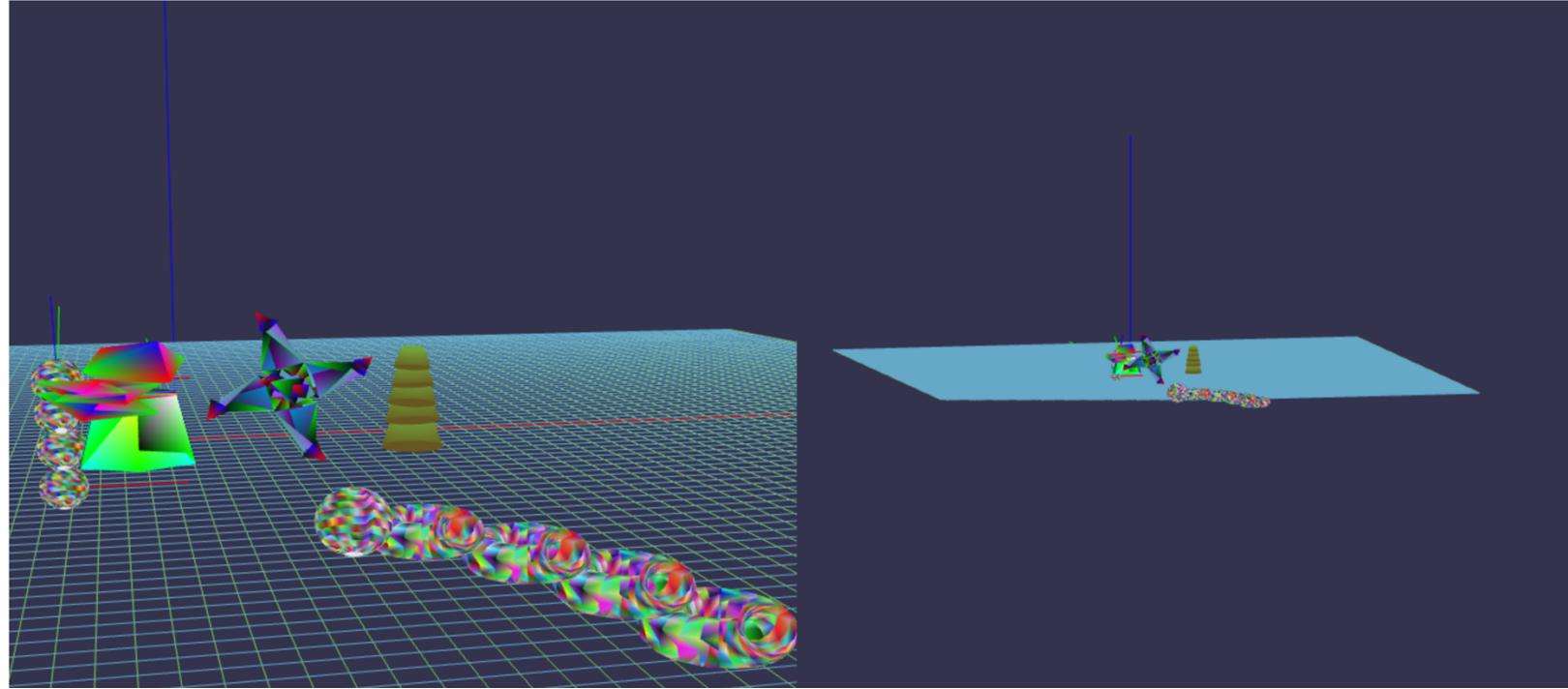
F.1 This shows the default setting of the project



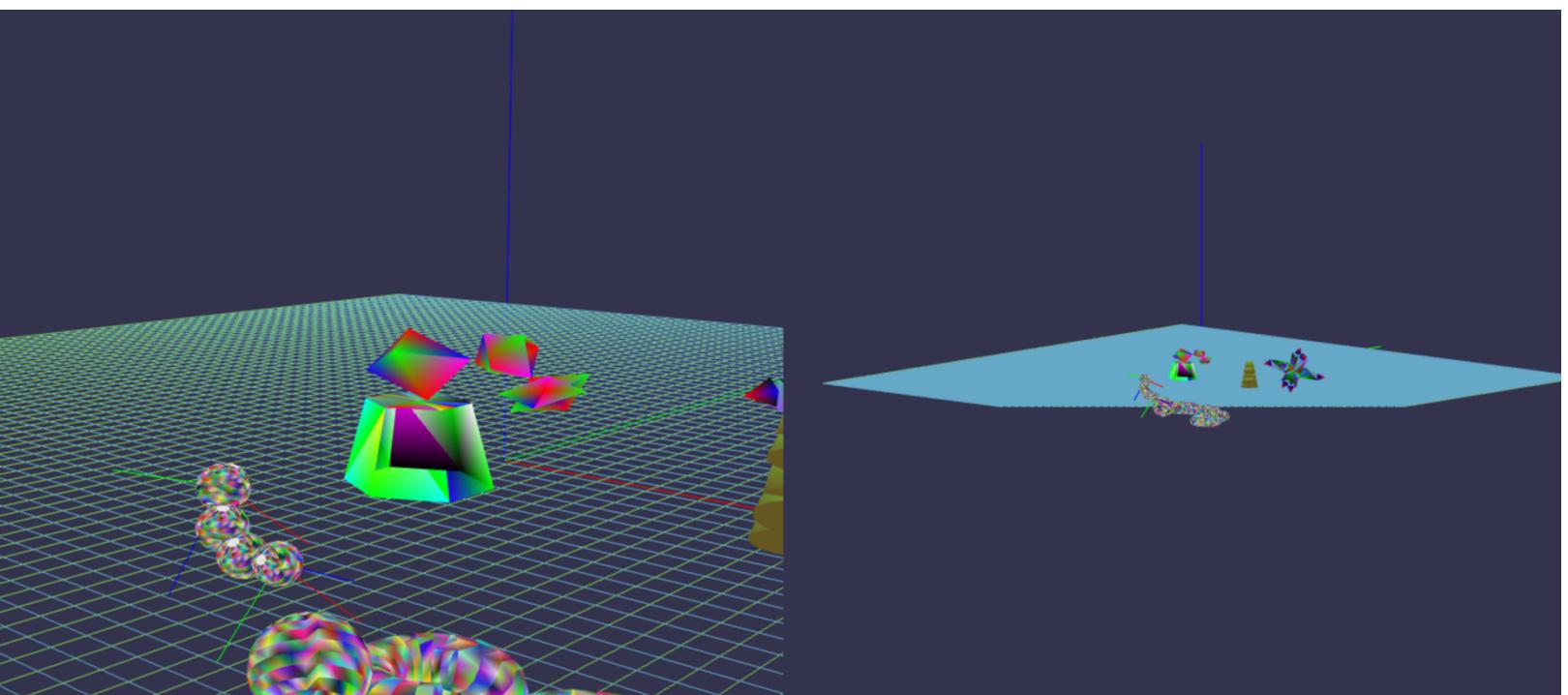
F.2 This shows the scene when the user changed the look at point but with the default camera position.



F.3 This shows the scene when the user changed the camera position but with the default look at direction.



F.4 This shows the scene when user changed both the camera position and look at direction.



F.5 This shows the scene when user drag the accumulated spheres.