

# Some of the Solar System

By Alexis Doyle

[Doylalex@oregonstate.edu](mailto:Doylalex@oregonstate.edu)

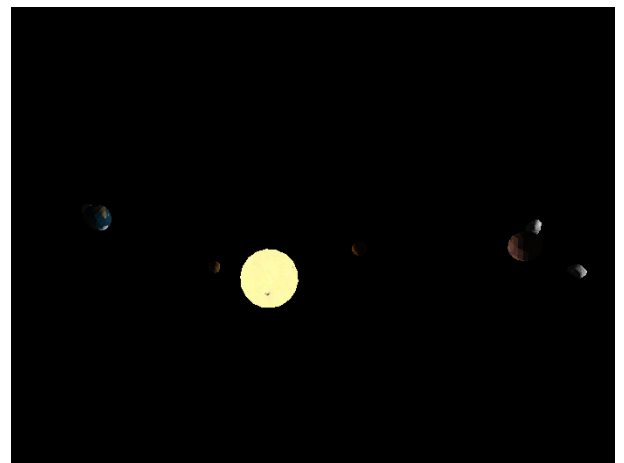
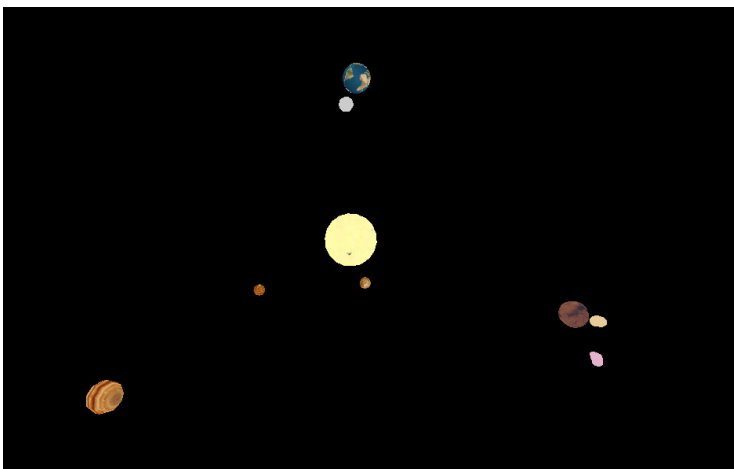
### Proposed Project:

In this project I wish to create some of the solar system which includes:

1. The Sun which will be a center point for all the planets and have a red point light to mimic sunlight.
2. Five planets: Venus, Mercury, Earth, Mars and Jupiter. Which will all be rotating around the sun.
3. Three moons/satellites: one of which will be the Earth's moon and the other two are Mars moons (Deimos and Phobos). All three of these moons will be rotating around their assigned planets. Both Deimos and Phobos have obj files that I will be using.

### My Project:

I followed my proposal for the most part aside from some aesthetic changes. In addition, I added a keyboard key for lighting so you can see the scene better. On the left is the scene without lighting and on the right, the scene has a point light in the sun. The lighting makes it very dark and hard to see the planets.

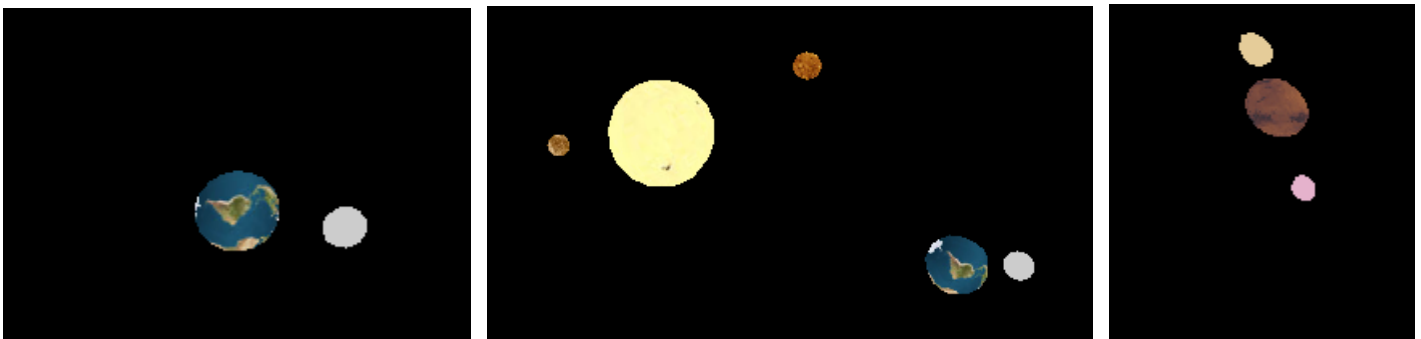


**What differs from the original plan:**

When doing the assignment I decided that a white point light would be better than red so I changed the colors. Also after enabling lighting, I decided I preferred it without lighting so I added the feature to just turn lighting off completely. In addition, the textures I chose for the Moon, Deimos, and Phobos did not work like I wanted so I selected different colors for them. When testing I noticed that If I used different textures from the other planets they worked perfectly fine on the satellites, only the textures I picked for them did not work as nicely. Since textures were something we could include but were not required I did not think it was a big deal to change some of the textures. Overall, I just changed the aesthetics of the project and added a feature for lighting.

**What did I learn while doing this project:**

This project gave me the opportunity to refresh and work with more obj files since I have only used one for the helicopter project. I learned that jpg can be converted into BMP files for textures of planets and work okay for the most part. The quality of the image really matters when it comes to textures. This project allowed me to become more familiar with rotating and translating objects. Before this project, I had no idea how to move an object around a moving object. However, after this project, I completed this task for three objects as seen below.



**Sources:**

All the textures and Obj files I included and want to use are from here

<http://planetpixelemporium.com/mars.html>

**Kaltura Video:**

[https://media.oregonstate.edu/media/t/1\\_cwecloax](https://media.oregonstate.edu/media/t/1_cwecloax)