Homework 4 Problem 1

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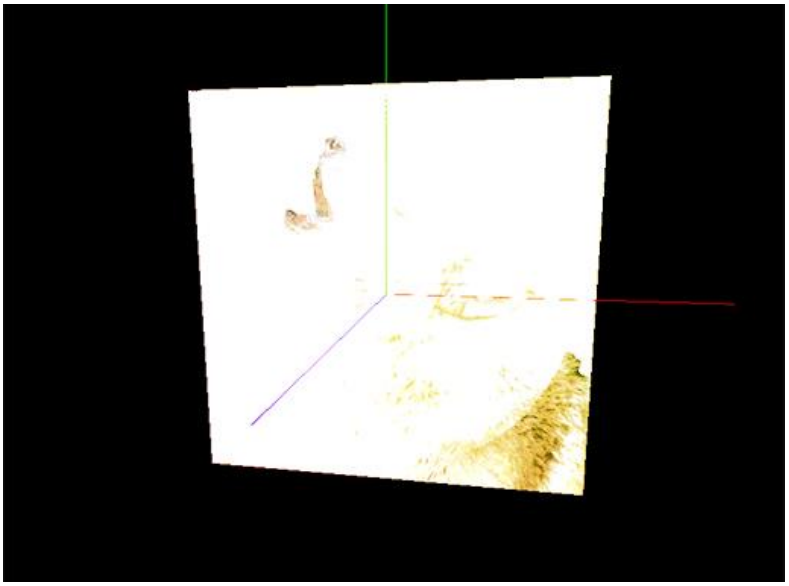
The three images used in Problem 1 are shown below.

Three functions were tested for blending of the images, and are given below. Tex_color represents the deathstar texture, tex_color_light represents the wolf, and tex_color_new represents the gradient.

Blend Function 1:

```
color = 0.1 * pass_Color + tex_color + tex_color_light + tex_color_new;
```

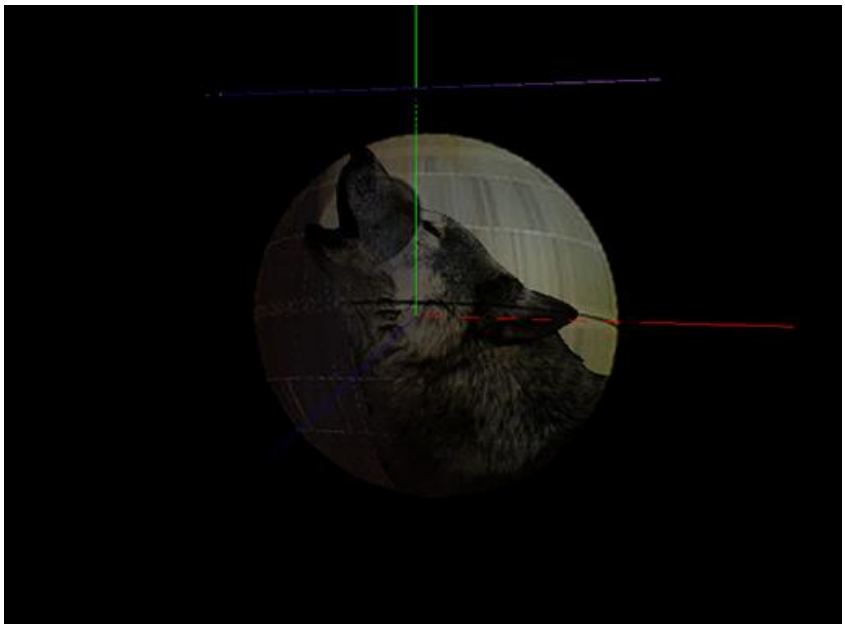
This function was provided by Dr. Radkowski, and simply uses a pass color while adding the color values for each image. It creates the following composite image, which obscures and over-exposes the textures.



Blend Function 2:

color = tex_color * tex_color_light * tex_color_new;

This function was also provided by Dr. Radkowski, and utilizes simple multiplication of pixel color values for each image. The result nicely shows the overlay of each image, but the gradient is somewhat obscured. For this reason, a third blend function was tested.



Blend Function 3:

color = tex_color / tex_color_light * tex_color_new;

Because the wolf overlaid onto the moon created such a dark image when multiplying, we decided to divide the two instead. This effectively inversed the image (since they were likewise color topologies) and created a light on dark contrast. The gradient was then multiplied to create a color scheme of gradient on light and gradient on dark.