

Assignment 1b

the effects of: k_a , k_d , k_s , n and Osl in addition to Odl

- K_a defines how bright the material is in general. The lower the value k_a is, the darker the object in general will be. It defines like the base color and how bright it looks.
- K_d defines how well the light diffuses throughout the object. The lower the k_d value, the less the light is diffused through the surface
- K_s defines how bright the specular light is. The higher the value, the more bright the light reflects.
- Objects like blankets and paper will have a 0 k_s value as they don't reflect light. It will have trouble showing correct images though since the model isn't correct in how physics work

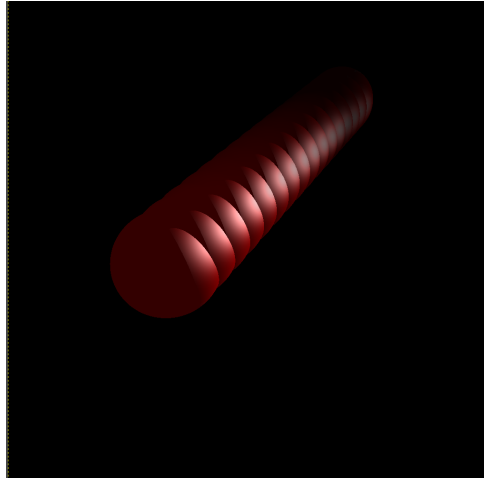
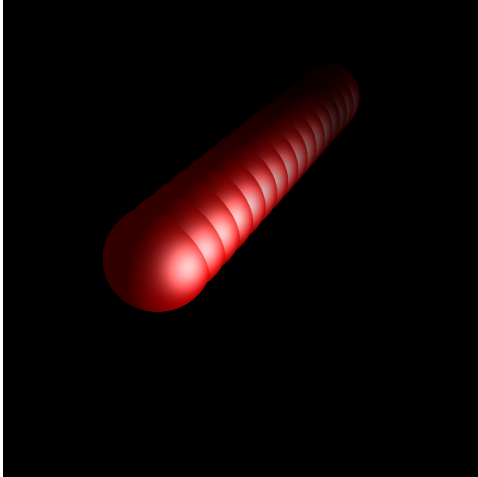
the use of a directional light source vs a point light source

- Directional light is like there is an infinite line of lights pointing in one direction. This is different from a point light source where light shines in all directions from a single point. You would want to use a directional light if you want to have an even amount of lighting on a scene. A point light can give more perspective to how far objects are and give you info on where the light source is coming from. Point light sources can also show depth cueing and light attenuation

the use of multiple lights vs a single light

- Using multiple lights can create cool shadows in the image. It also can be

Below is my implementation of depth cueing along with the difference between a directional light and a point light.



Next is my implementation of light attenuation. The closer the object is to the light source, the brighter it is lit up. As in the image provided, the smaller circle is really close to the light and as you go further away from the light source it becomes dimmer. As you can see on the second sphere.

