Checkpoint 4

The image in checkpoint 2 was far more legible than the image in checkpoint 3. In addition, the first image had far greater detail, and the second image was far smaller.

Checkpoint 6

The image in checkpoint 2 had brighter lighting, while the image after changing the gamma value (at checkpoint 5) was much dimmer. However, the dimensions, color and level of detail remained the same.

- 1. In real life, light interacts differently with different objects if they hold different levels of translucence, have much brighter or darker colors than one another, and how intense that object's color is: to name a few properties. One example of this being a glass of water reflecting light directly through the object, while an object such as an iron dumbbell would not hold this property. Another example is when in the heat, darker colored clothes absorb more heat & light from the sun. A third example of how light interacts differently with different objects is an object holding an intense shade of red would absorb more light if a flashlight was flashed right in front of it than an object with a very light shade of red.
- 2. Object's colors appear differently on the eye because they reflect every color that does make up their own.
- 3. YUV color space allows the programmer to directly adjust the brightness of the color by simply adjusting the value of the Y variable, while at the same time being able to adjust the color itself by adjusting U and V values.
- 4.
 Colors are added to light using a determination of which wavelengths are reflected, while color is added to paint using metal compounds. The RGB value for light equals the amount of red wavelength, green wavelength and blue wavelength used, and the combination of them results in one color value. The RGB value for paint equals the amount of red, green and blue metal compounds mixed together which results in one color value for the paint.
- 5. Green screens are green because the color green does not match any natural skin tone or hair color, making it impossible for a person in front of the green screen to fuse into the background.
- 6. Tone mapping is essential for HDR images because it makes the image look more realistic.
- 7.

The relationship between wavelength of light and color of light can be described as the wavelengths making up the light itself while the color of the light is determined by the wavelengths of light that are reflected.

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