The first thing I learned after doing a bit of research on pixels and color models is that the word ‘pixel’ is short for picture element. A digital image is made up of small pixels that represent a point in the image with a specific color. Pixels are arranged in a grid to form digital images and the resolution of the image is determined by the number of pixels in the grid. Each individual pixel in a digital image is given a color value and color models like RGB and HSV are used to change the a pixel’s color.

Color Models are used to represent the color of pixels in different ways. In the RGB model, a pixel’s color is made up of different intensities of the colors red, green, and blue. The intensity for each color can range from 0 to 255 (weakest to strongest). The most common use of this color model is on TVs and monitors. Another common color model is the HSV model, or Hue, Saturation, and Value model. In this model, hue is measured in degrees ranging from 0-360 and portrays the type of color. Saturation measures the intensity of the color with a range of 0-100%. A lower saturation intensity means that the color is closer to gray while higher numbers make it closer to the full color. Value determines the brightness of a color and with a range of 0-100% with 0% being black and brighter as it gets closer to 100%. HSV is most used in image editing because it is closer to what a person’s perception of color is. These color models have their own advantages depending on how they are being used.