Here the digital camera is been used to capture the image. The image been taken is then passed to the processes for identification or recognition purposes. The sensor or vehicle detector is been used as to detect a vehicle approaching and activate the digital camera as to stand ready or stay ready to capture the image.

### Gray Scale Conversion

The color image contains a 24bit color so it is difficult to apply image manipulation to the image, to solve the problem we apply gray scale to the image where we basically reduce the color to 8bit that is more manageable to work with and as well we reduce the pixel values to 0-255 with 0 representing black and 255 to more lighter color or white. By applying this method the values Red, Green and Blue will be represented by the gray value and this method gray scaling helps a lot when comes to image manipulation since does not contain of so many pixel values to work with. And the image is shown on figure 1.