Design and Calculation for the Traffic light circuit
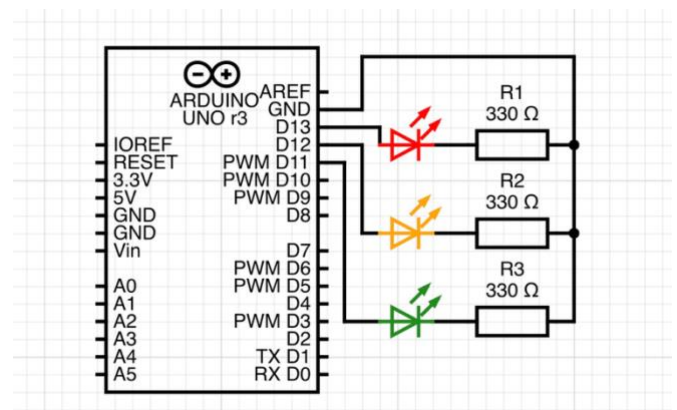
Voltage:

1- Pin13,12,11: V=5.0v

2- Voltage at Red led= 2.0v (1.8-2.2)

3- Voltage at yellow led= 2.1v (2.0-2.4)

4- Voltage at green led= 2.2v (2.0-3.0)

Resistant of the series resistor:

1- Rred,Ryellow,Rgreen= 330 Ohms

Designed by: www.circuit-diagram.org

Current of each led:

1- I_{red}= (Vpin13-Vred)/Rred)= (5-2.0)/330 =0.00909A= 9.09mA

2- I_{yellow} = (Vpin12-Vyellow)/Ryellow)= (5-2.1)/330 =0.00879A= 8.79mA

3- I_{green}= (Vpin11-Vgreen)/Rgreen)= (5-2.2)/330 =0.00848A= 8.48mA