

# Circuit Development

The LED model we will be using for this project is: **YSL-R596CR3G4B5C-C10**.

Forward biased voltage for those LEDs are between 1.8-3.3v.

Forward current id between 10-30mA.

Our Arduino uno operates on 5v.

The equation we need to calculate the resistance is:  $V_s - V_d / i_F$  or  $5 - 1.8 / 15 \text{ mA} = 213.33 \text{ ohm}$ .

Since we don't have a resistance built with 213.33 ohm. We will be using 220 ohm which is widely available.

