CIRCUITS

$$\text{Voltage } (V) = \text{units volts } (V) = \frac{J}{C}$$

$$\text{Current } (I) = \text{units amps } (A) = \frac{C}{S}$$

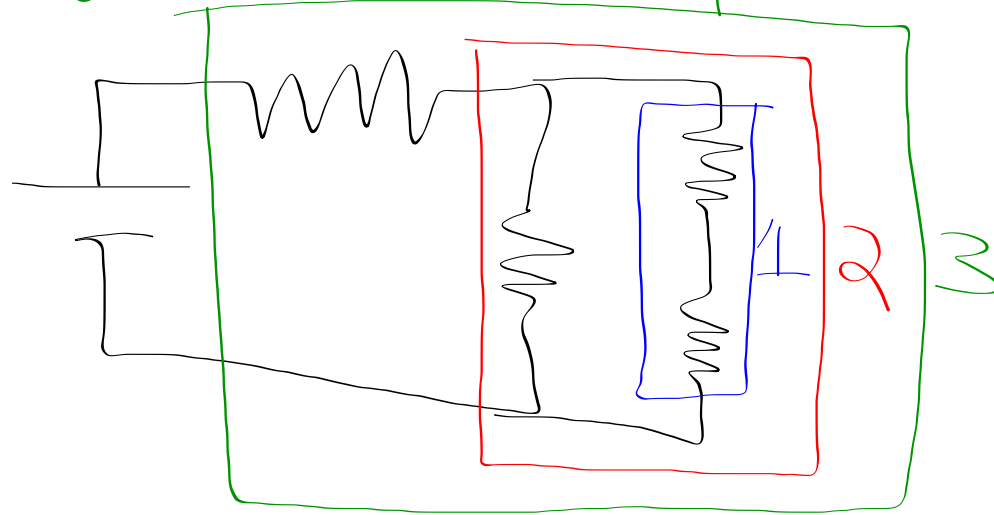$$\text{Resistance } (R) = \text{units ohms } (\Omega) = \frac{J \cdot S}{C^2}$$
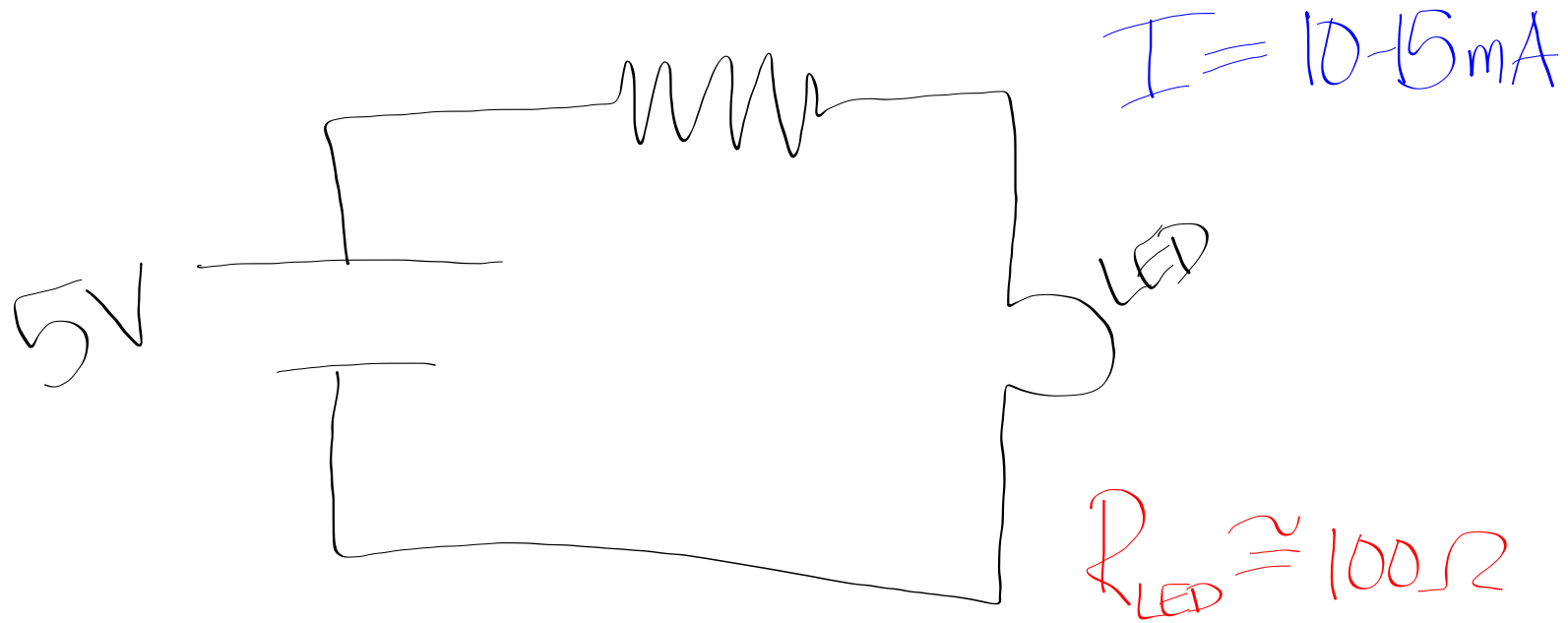
$$\text{Ohm's Law: } V = I \cdot R$$

$$I = \frac{V}{R}$$

Resistance in series: $R_{TOT} = R_1 + R_2 + R_3 \cdots$

Resistance in parallel: $\dfrac{1}{R_{TOT}} = \dfrac{1}{R_1} + \dfrac{1}{R_2} + \dfrac{1}{R_3} \cdots$

Mix: Find "equivalent resistance" of different Path

$$I = 10 - 15\,mA$$

$$R_{LED} \cong 100\,\Omega$$

5V

LED

5 V Power supply

LED #1 : 10 mA

LED #2 : 15 mA

} Build this