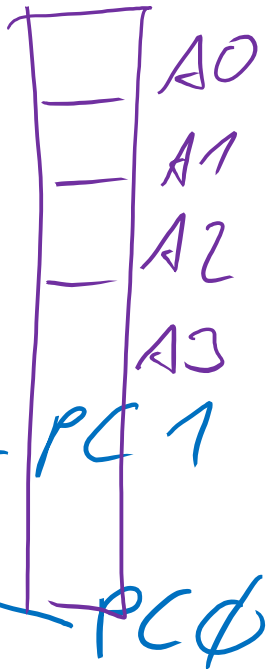
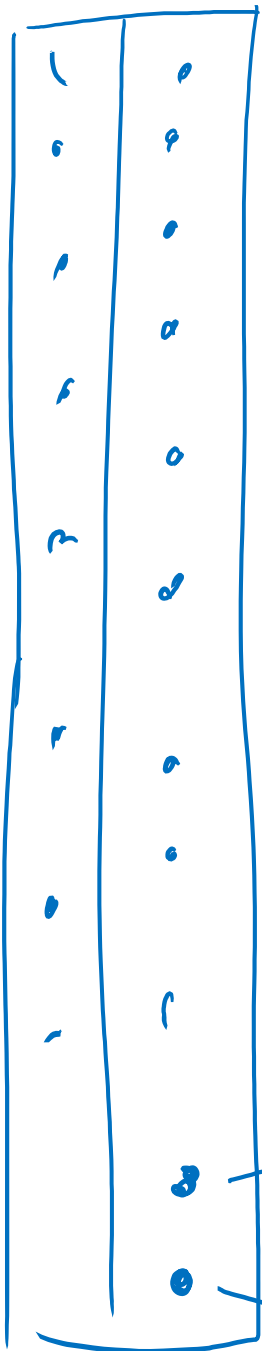
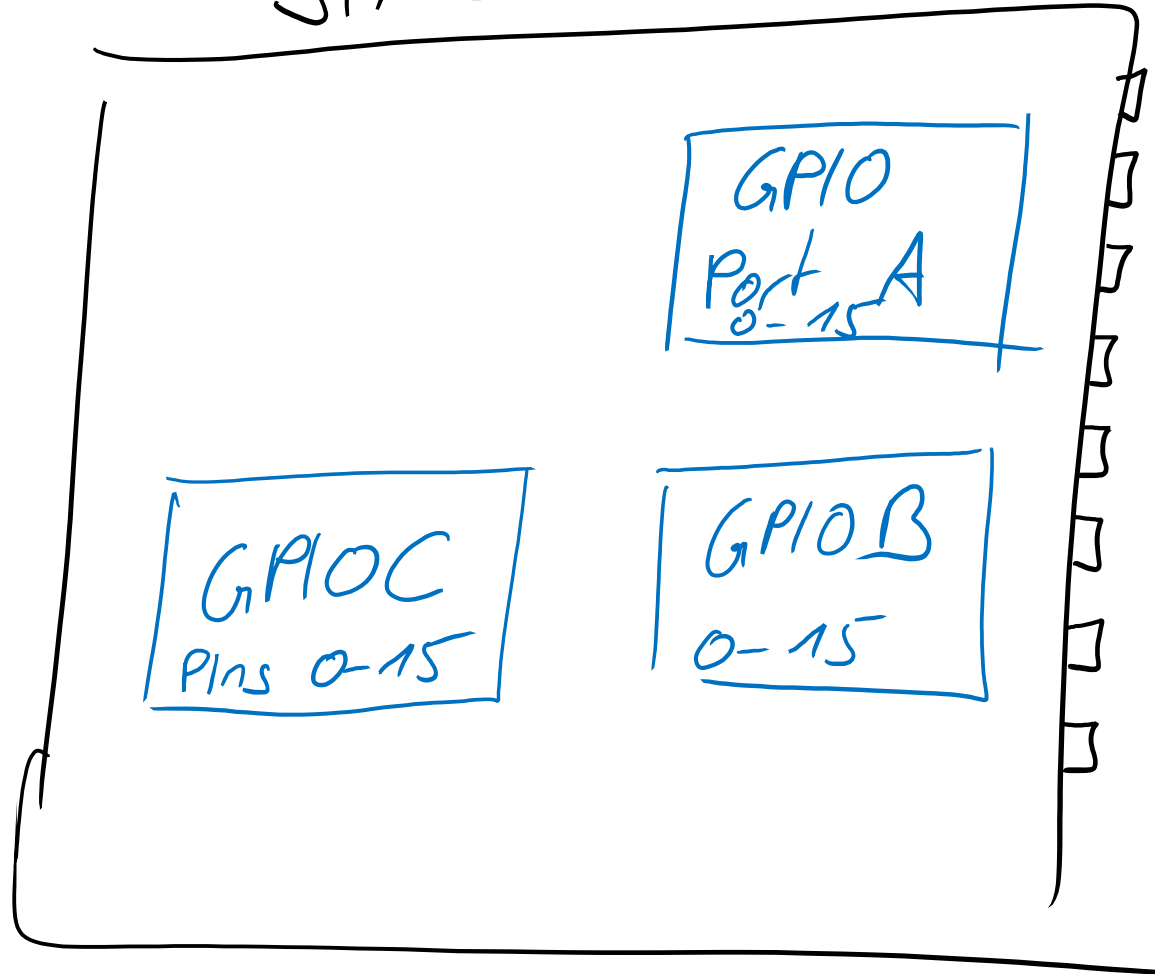
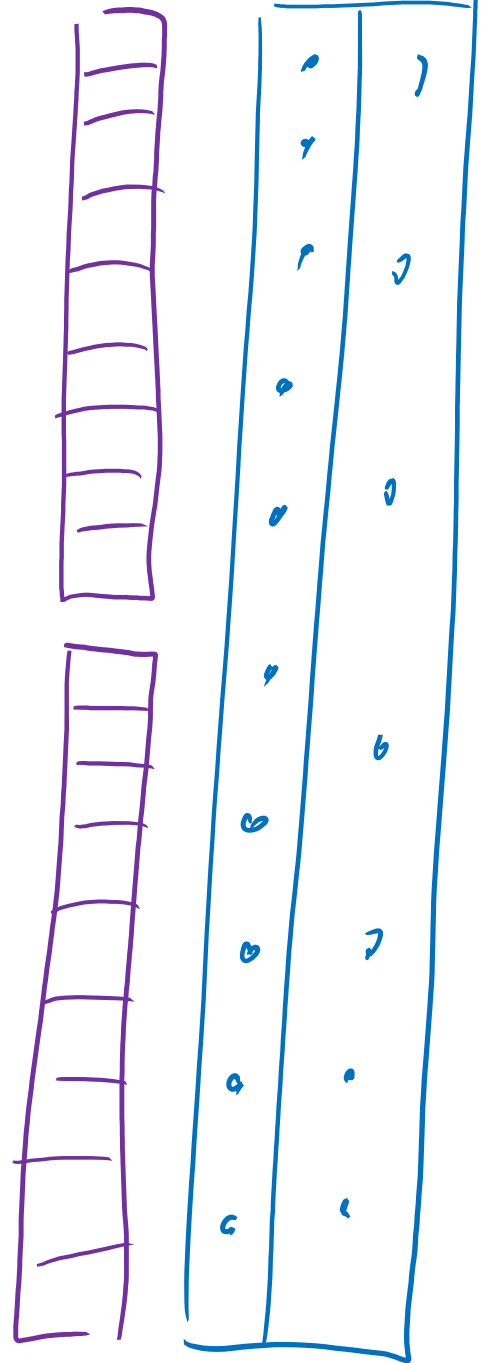
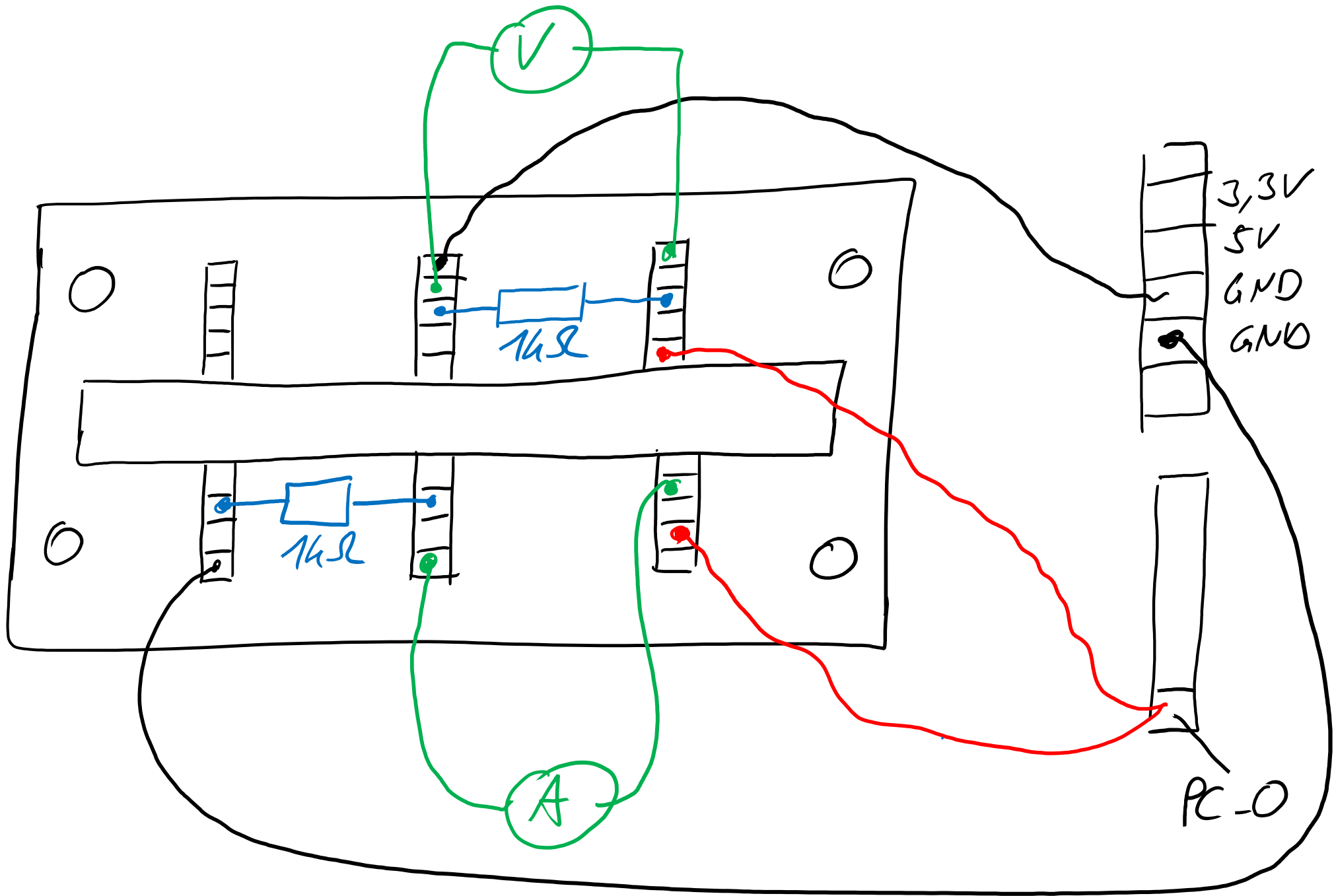


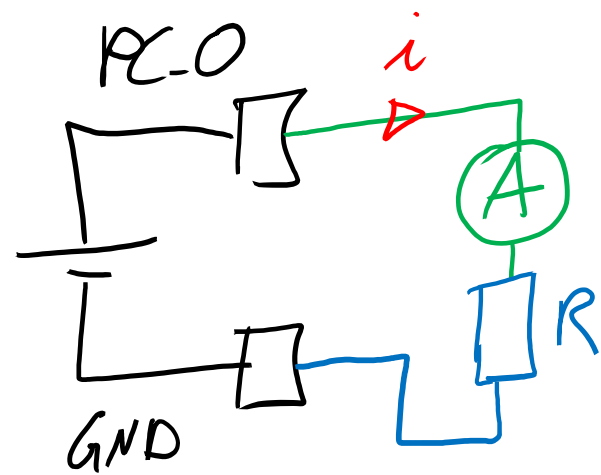
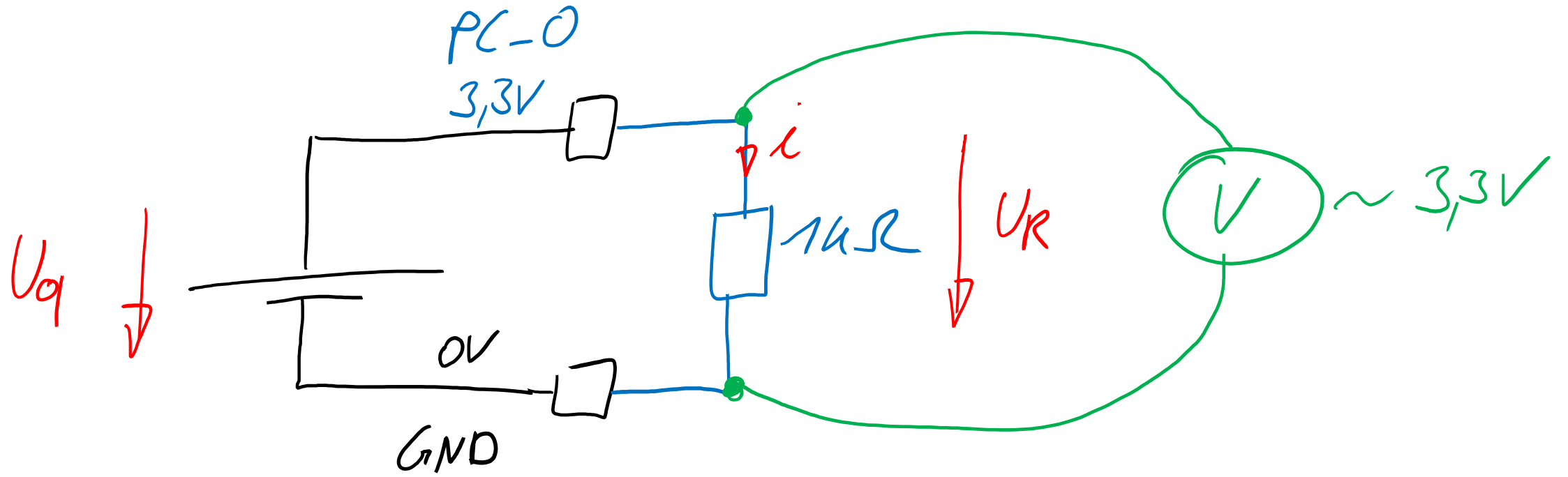
STM32



Arduino  
D2  
D1  
D0







$$i = \frac{U}{R} = \frac{3,3V}{14\Omega} \approx 3,3mA$$

$$R = 33 \Omega$$

$$I = 55 \text{ mA}$$

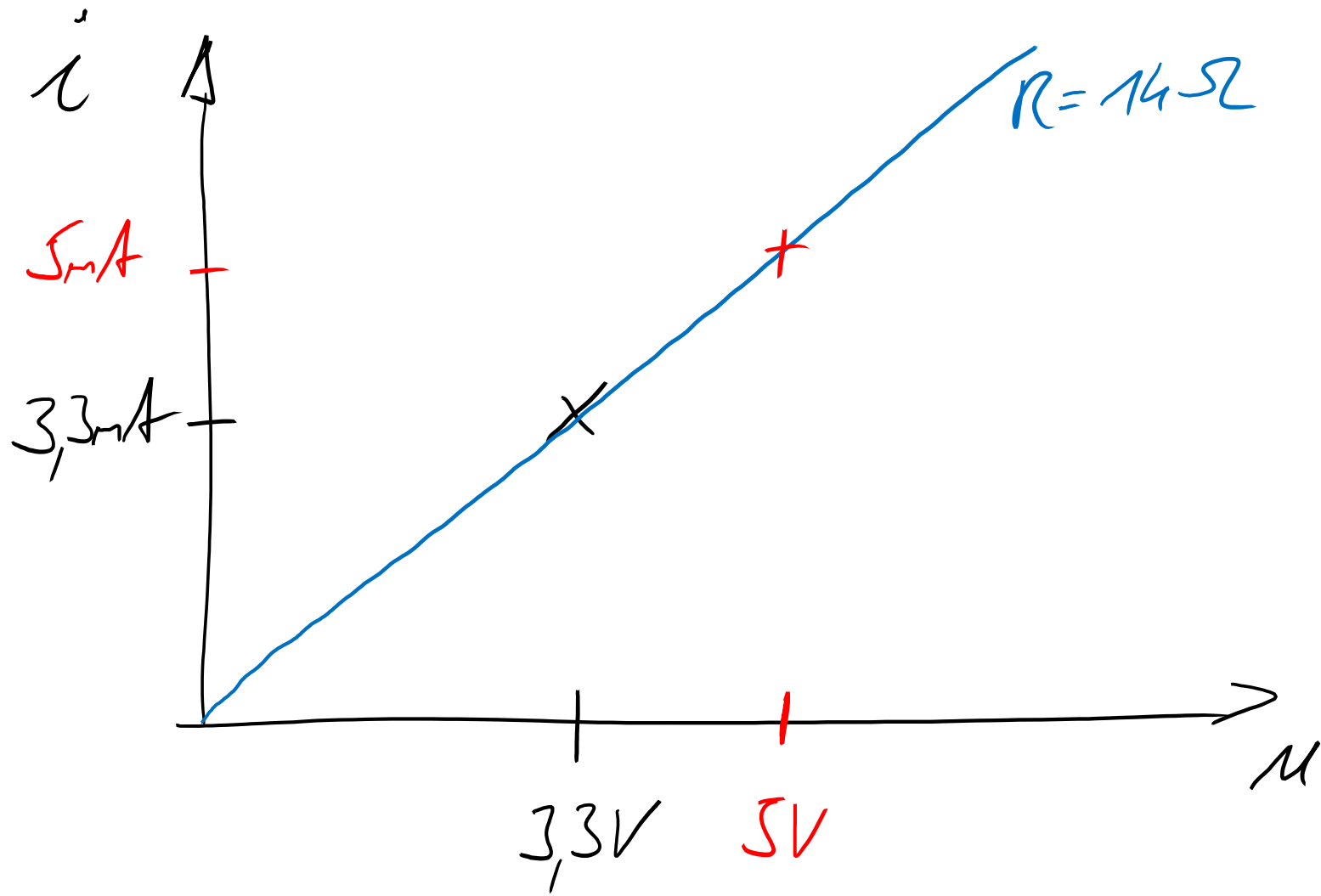
$$U = R \cdot I = 33 \cdot 55 \text{ mV} = \underline{\underline{1,815 \text{ V}}}$$

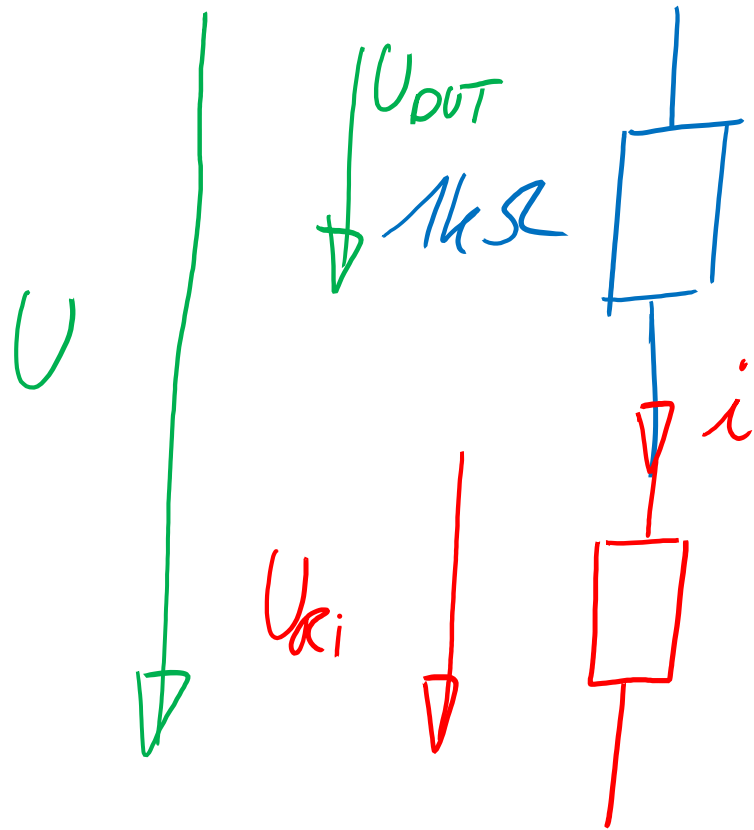
$$U_1 = 3,3 \text{ V}$$

$$I_{\text{max}} = 20 \text{ mA}$$

$$R = ?$$

$$R = \frac{U}{I} = \frac{3300 \cancel{\text{ mV}}}{20 \cancel{\text{ mA}}} = 165 \Omega$$



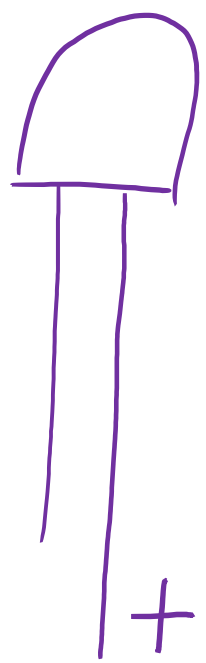
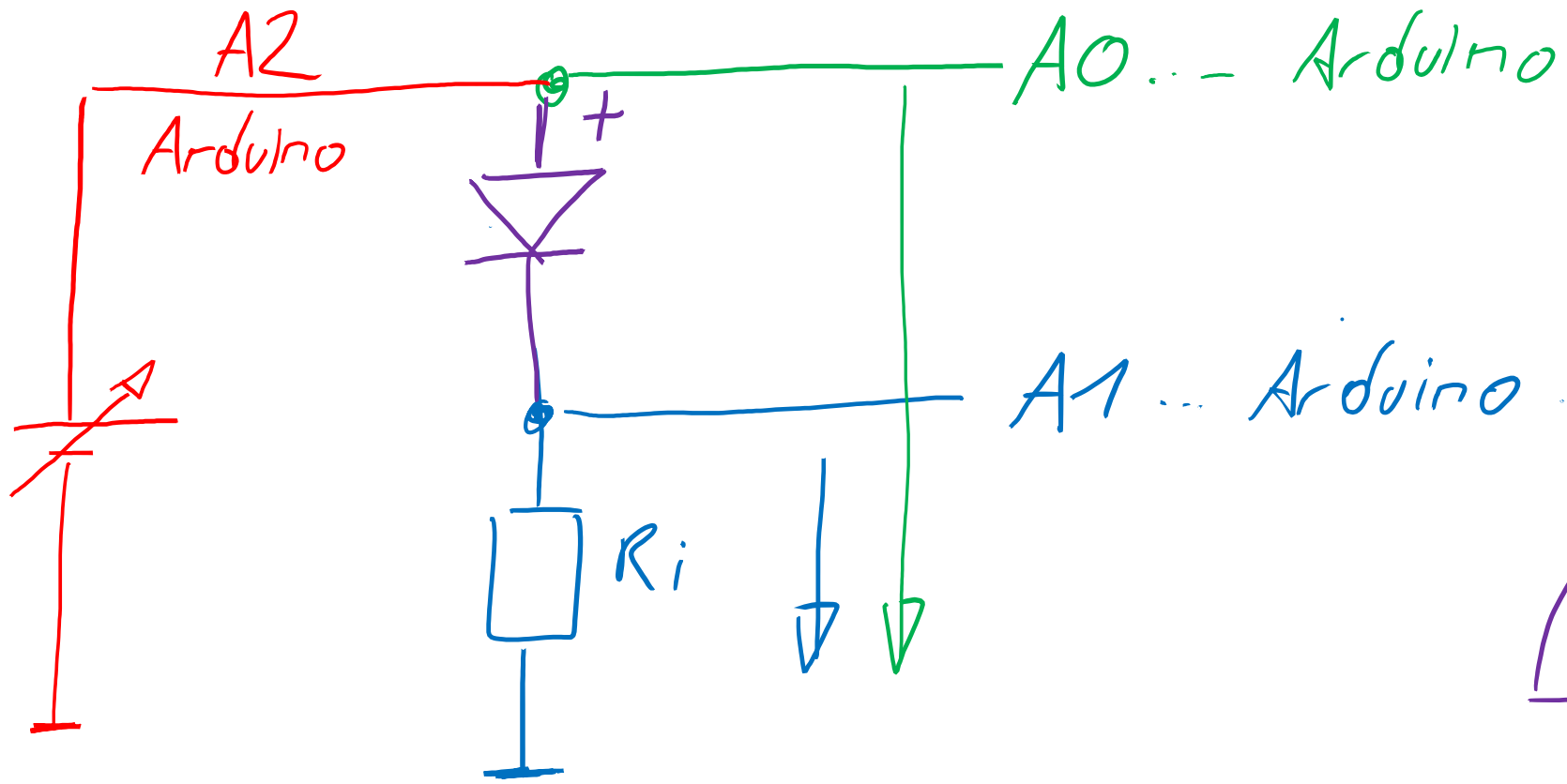


Device Under Test DUT

$$R_i = 33\Omega$$

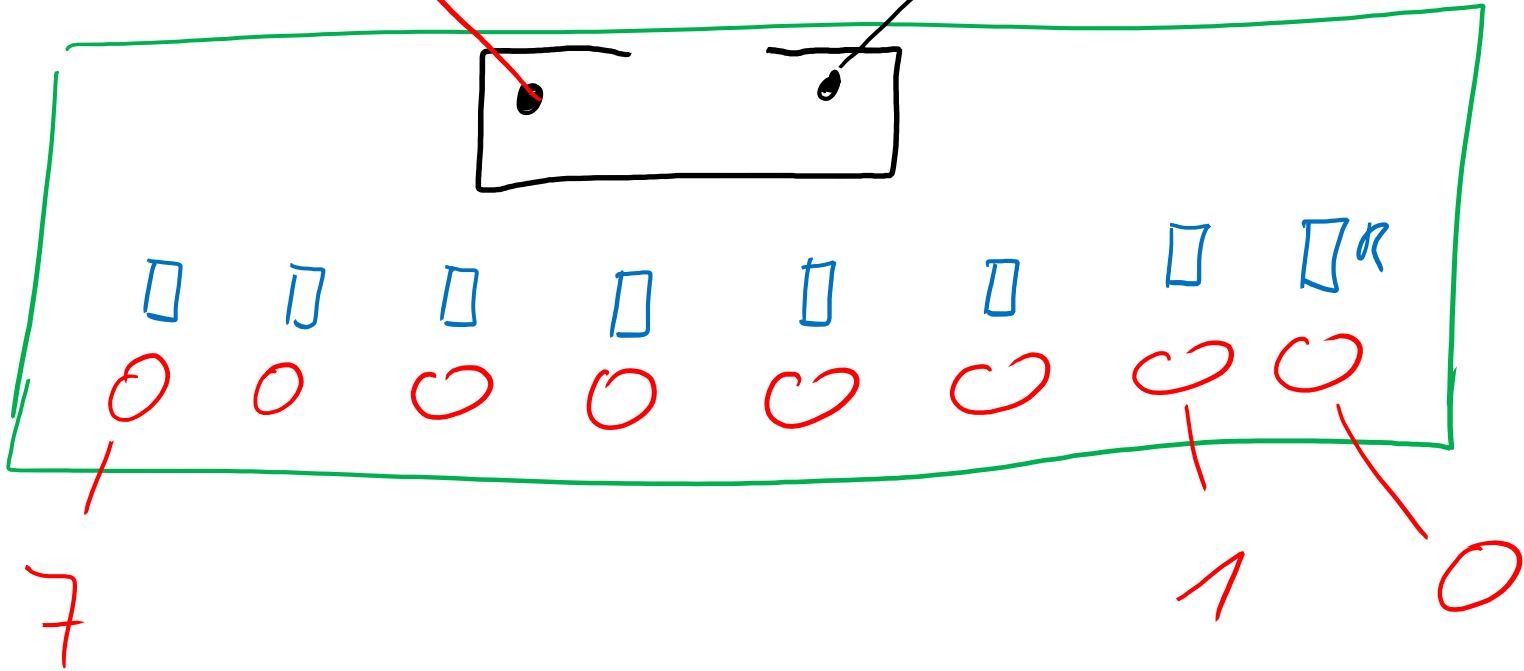
$$i = \frac{U_{R_i}}{33\Omega}$$

$$U - U_{R_i} = U_{DUT}$$

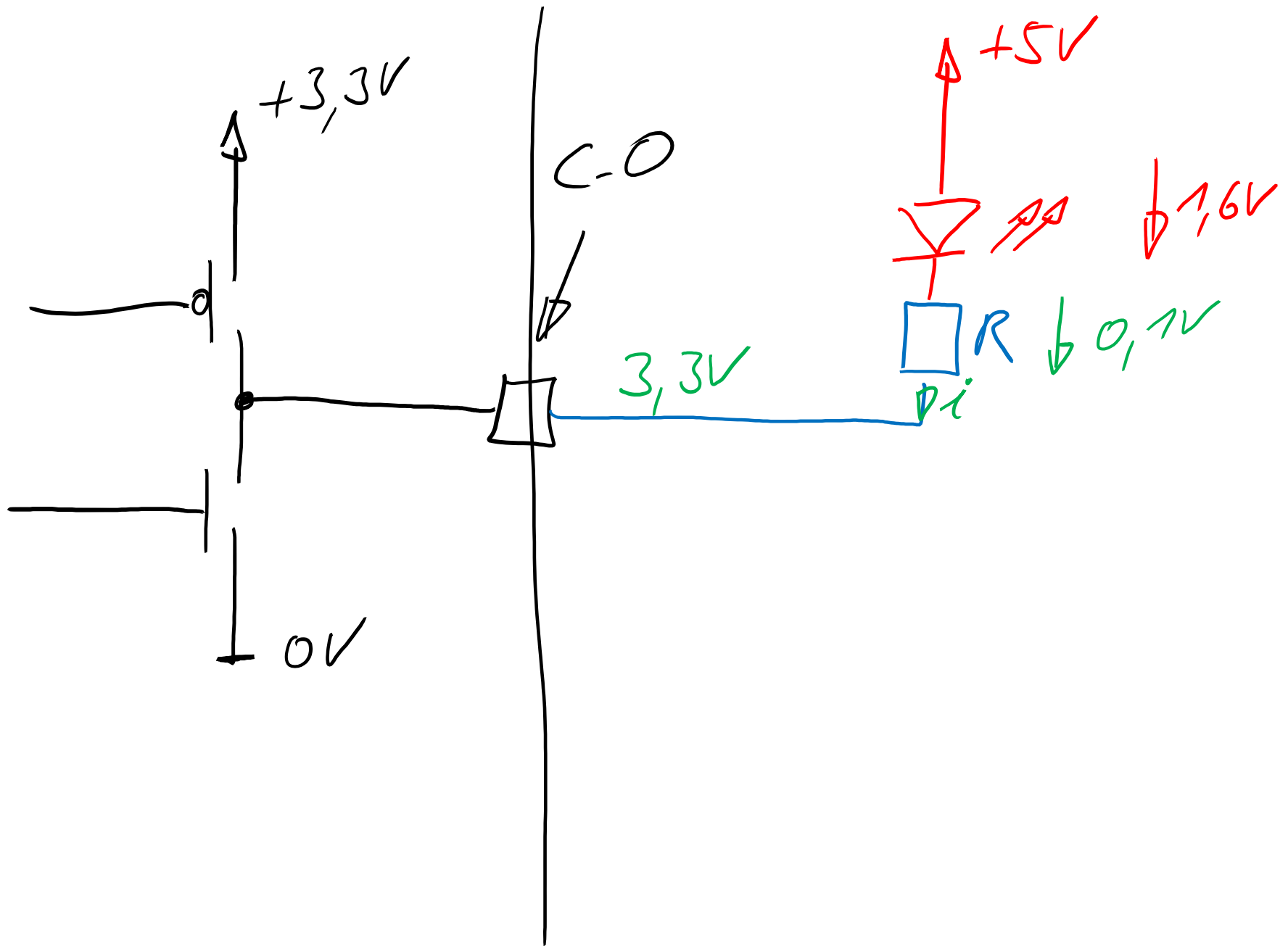


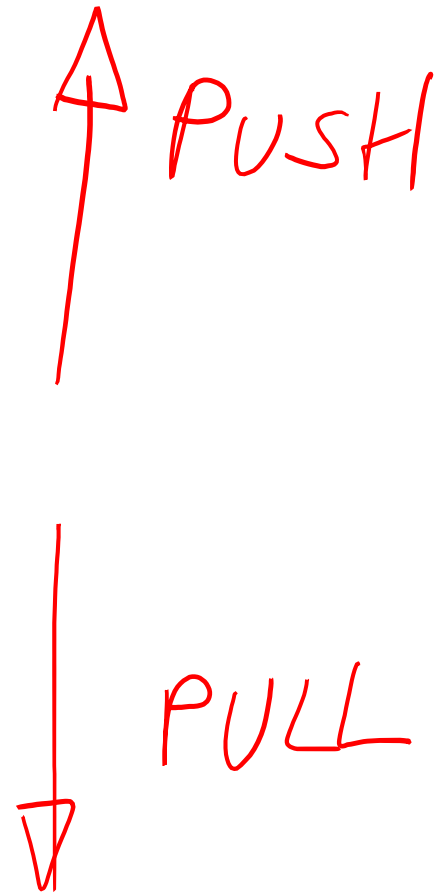
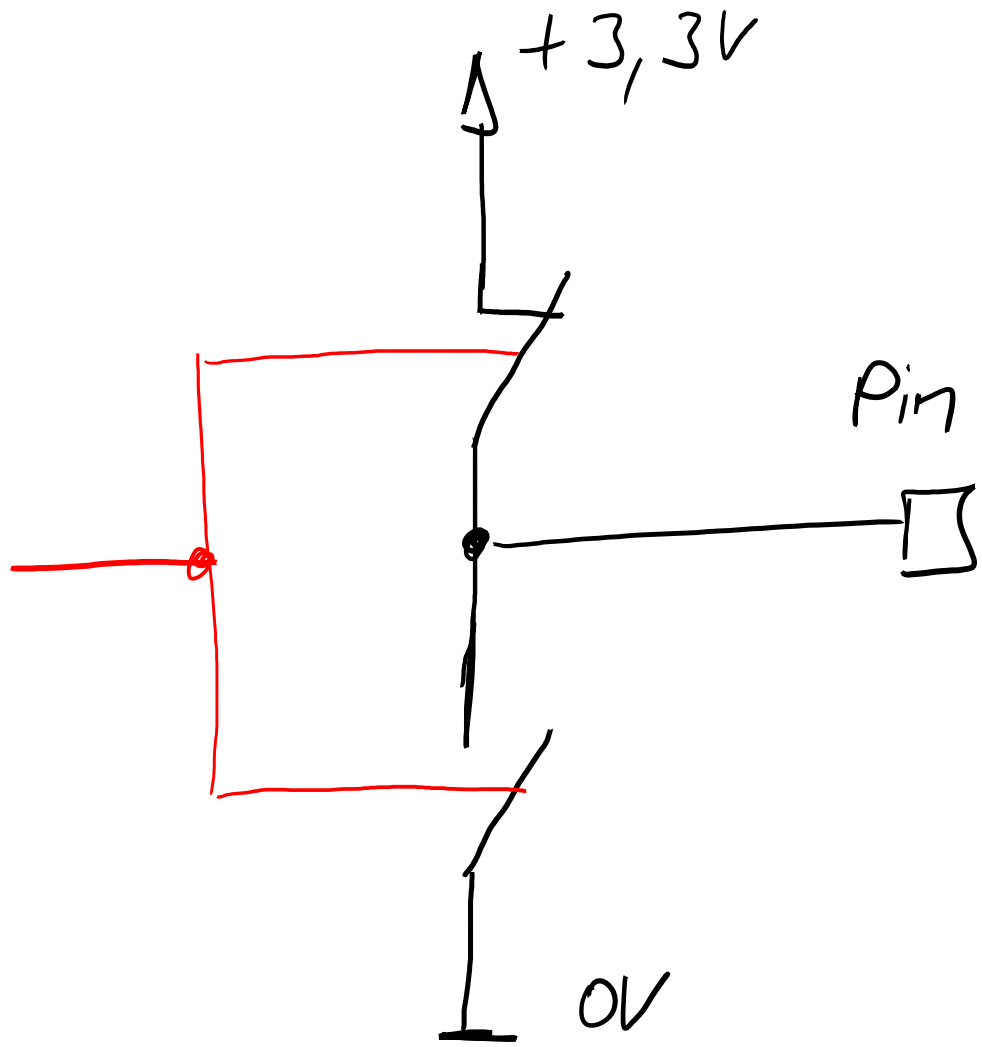
+3,3V // 5V

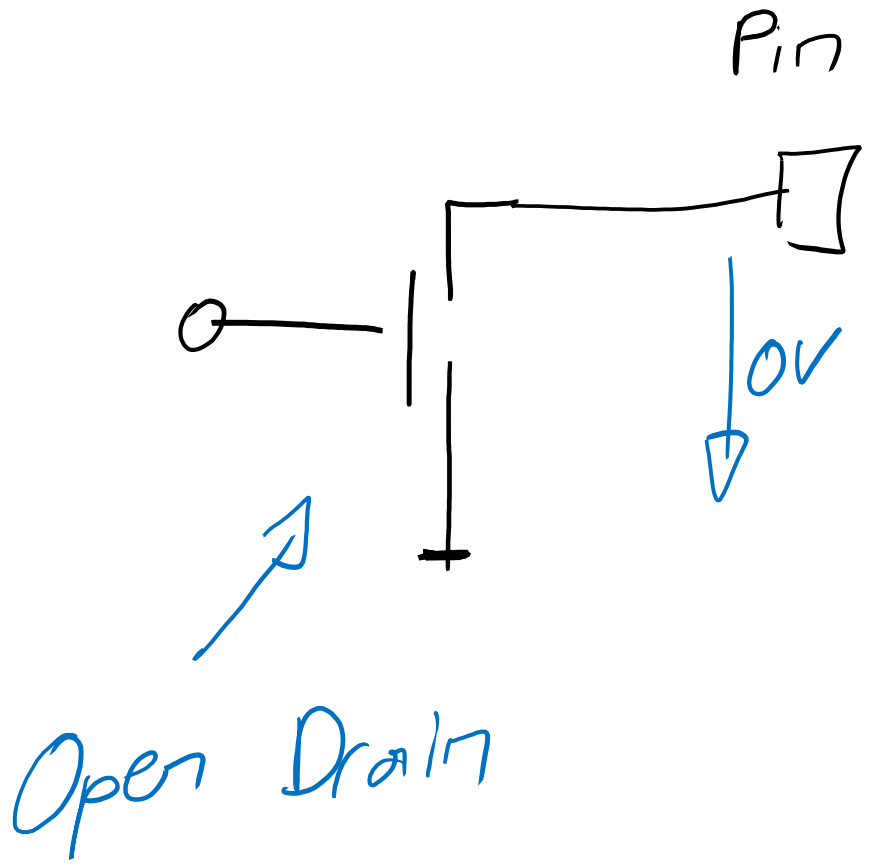
LED  $\phi$   
→ PC-0



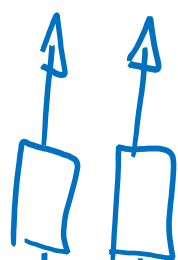






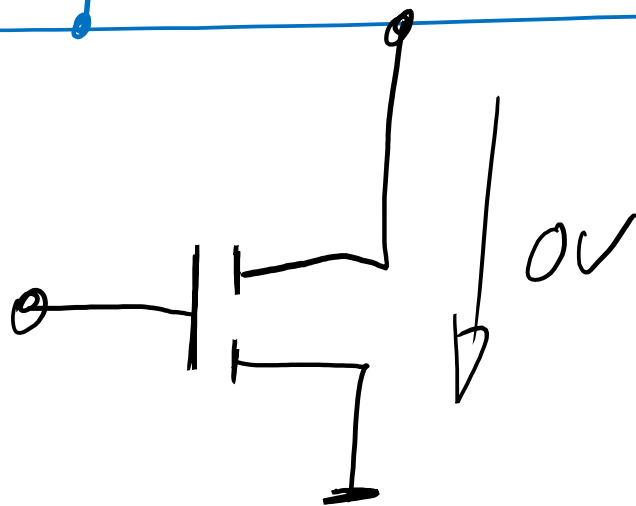
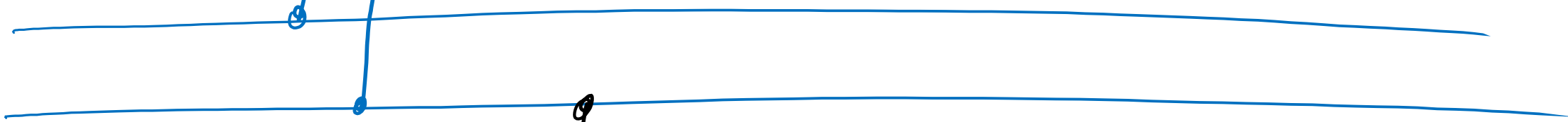


12C - Bus



4,7k $\Omega$

Pull-Up



+5V

