

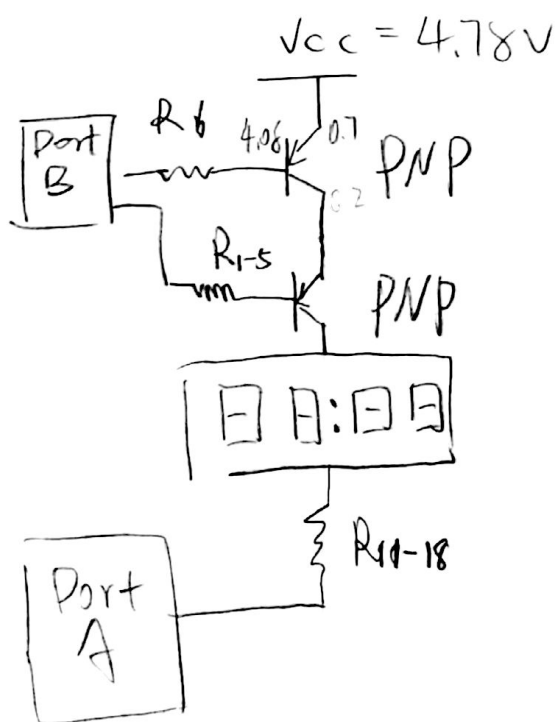
Calculation for Lab 2

Changxu Yan

The voltage from Port B and Port A measured

4.78 V

The max current will be allowed on board
is 100 mA



$$R_6 = \frac{(4.78 - 0.7)V}{(0.1 / 100)A} = 4.08 k\Omega$$

$$R_{1-5} = \frac{(4.78 - 0.2 - 0.7)V}{(0.1 / 100)A} = 3.88 k\Omega$$

$$R_{11-18} = \frac{(4.78 - 0.2 - 0.2)V}{0.01 A} = 438 \Omega$$

R_6 we chose $4.7 k\Omega$

R_{1-5}

R_{11-18} we chose 470Ω

Current on led's are $\frac{0.216V}{470 \Omega} = 0.46 mA$

Frequency 166 Hz positive duty cycle 66.7%

changxu Yan

