

Prelab2

2024年2月11日 星期日

13:05

$$\text{Group} = 10$$

$$\text{Pin } X = 10 \bmod 36 = 10$$

$$T = 10 \times 20 = 200 \text{ mSec}$$

$$F_{\text{osc}} = 125 \text{ kHz}$$

$$\text{TMRO_max_ticks} = \frac{\text{Delay}}{\text{prescaler}} \cdot \frac{F_{\text{osc}}}{4}$$

$$\text{For prescaler } 32: \frac{200 \text{ m}}{32} \cdot \frac{125 \text{ k}}{4} = 195.3 \approx 195$$

$$\text{real delay} = \frac{125 \text{ k}}{4 \times 32 \times 195} = 0.19968$$

$$\text{error} = 200 - 199.68 = 0.32 \text{ mSec}$$