



$IR_1 \rightarrow$ Timer 3 segundos
 $IR_2 \rightarrow$ Timer de 0.01s
 $IR_3 \rightarrow$ Pulsación de botón

Generación de onda PWM \rightarrow Timer 0

$$\begin{aligned}
 & \bullet 244,14 \text{ Hz} \quad F_{clk} = \frac{16 \cdot 10^6}{N} \quad P = \frac{1}{244,14} = \frac{N}{16 \cdot 10^6} \cdot 256 \\
 & \bullet \oplus 256 \mu s
 \end{aligned}$$

$$N = \frac{16 \cdot 10^6}{244,14 \cdot 256} = 256$$

$$F_{clk} = \frac{16 \cdot 10^6}{256} = 62500$$

$$C_+ = \frac{256 \cdot 10^{-6}}{1/62500} = 16 \quad \begin{cases} \text{Non-inverted} \rightarrow 16 \\ \text{Inverted} \rightarrow 256 - 16 = 240 \end{cases} \rightarrow \text{OCRD1}$$

Conteo de 0.01s

- Timer 2 \rightarrow Modo CTC
- Prescalador $\rightarrow 256$
- $F_{clk} = \frac{16 \cdot 10^6}{1024} = 15625$
- $0.01s = 1 \cdot 10^{-2} s$
- $C = \frac{1 \cdot 10^{-2}}{1/15625} = 157$

Conteo de 3s

- Timer 1 \rightarrow Modo CTC
- $F_{clk} = \frac{16 \cdot 10^6}{1024} = 15625$
- $C = \frac{3}{1/15625} = 46875$