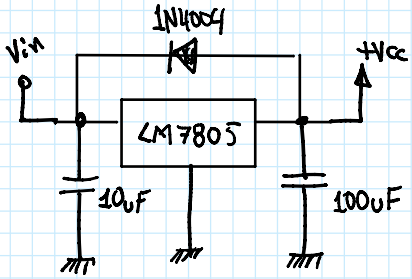
CONTROL PID PLANTA

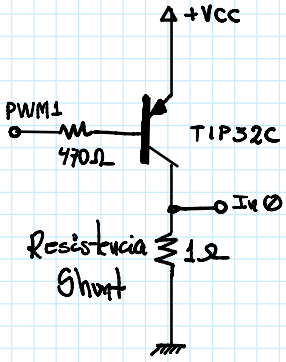
miércoles, 3 de mayo de 2023 14:36

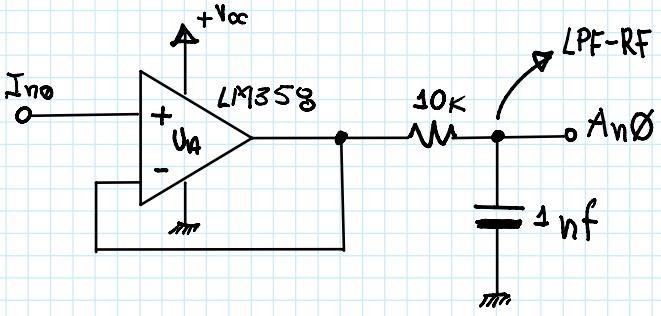
o> Nota: Transistores: TiP32C : PNP

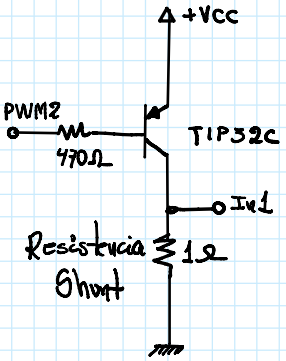
o> $I_B = \frac{V_{cc} - 0.7V}{R_b} = \frac{5V - 0.7V}{470\Omega} \simeq 9mA$ ∩ Cons: $I_C \cong I_E$

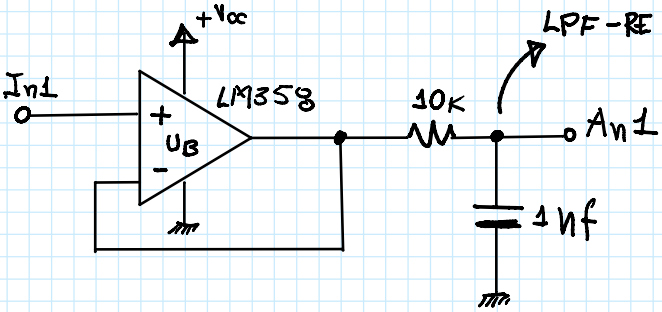
o> $h_{fe_{min}} = 10 \sim h_{fe_{max}} = 50$ → $I_{C_{min}} = 90mA$ ∿ $I_{C_{máx}} = 450mA$











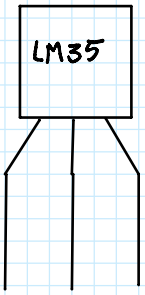
o> LPF-RC

o> f_c:

$$f_c = \frac{1}{2\pi RC} = \frac{1}{2\pi\, 10K\, 1nF}$$

$$= \frac{1}{2\pi\, 10\times10^{3}\times10^{-9}} = \frac{1}{2\pi\times10^{-5}}\ Hz$$

$$= \frac{10^{5}}{2\pi} \Rightarrow \boxed{f_c = 16kHz}$$



Sensor de Temperatura