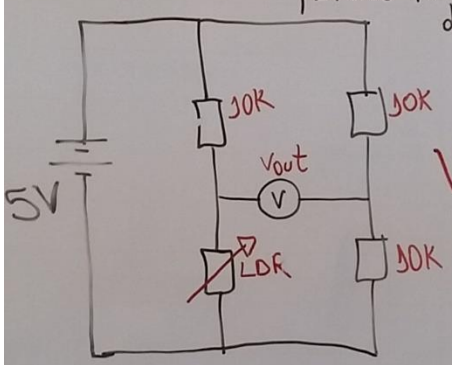
Caracterização em Pontes

→ Mais imune a variações de temp.



$$V_{out} = \frac{V_{ref}}{2}\,\frac{X}{(2+X)}$$

$$V_{out} = \frac{\cancel{V_{ref}}^{5V}}{4} \cdot X \rightarrow p/\ |X| << 1$$

$$R_{LDR} = \cancel{R_0}^{10K}\,(1+X) \rightarrow (X = -0{,}5 \ @\ 0{,}8)$$

$$R_{LDR}\ (5K\ @\ 18K)$$

$$S = \frac{\cancel{V_{Ref}}^{5V}}{\cancel{R_0}^{10K}} \cdot \frac{k}{(1+K+X)^2}$$

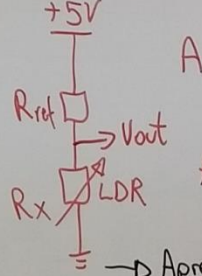
$$A = \frac{V_{out}}{R_X} = \frac{V_{ref}}{2R_x} \cdot \frac{X}{1+X}$$

$$A = \frac{V_{ref}}{2} \cdot \frac{X}{(1+X)} \cdot \frac{1}{R_0(1+X)}$$

$$A = \frac{V_{ref} \cdot X}{2R_0 \cdot (1+X)^2} \rightarrow p/\ |X| << 1$$

$$A = \frac{V_{ref}}{2R_0} \cdot X$$

Lembrando



$$A = \frac{V_{ref}}{R_0} \cdot \frac{k}{1+K+X} \rightarrow K = \frac{R_{ref}}{R_0} \rightarrow p/\ K = 1$$

$$A = \frac{V_{ref}}{R_0} \cdot \frac{1}{(1+X)} \quad p/\ |X| << 1 \rightarrow A = \frac{V_{ref}}{R_0}$$

→ Apresenta tb problemas c/ a temp.

$$S = \frac{V_{ref}}{R_0} \cdot \frac{k}{(1+K+X)^2}$$

$$V_{out} = \frac{R_0(1+X)}{R_0(1+X)+R_{ref}} \cdot V_{ref} = \frac{1+X}{1+X+\frac{R_{ref}}{R_0}} \cdot V_{ref} = \frac{1+X}{1+X+\cancel{K}^{1}} \cdot V_{ref}$$

$p/\ |X| << 1$

$$V_{out} = \frac{1}{2} V_{ref} \rightarrow \text{Problema}$$

Ele ñ é sensivel à pequenos variações de X