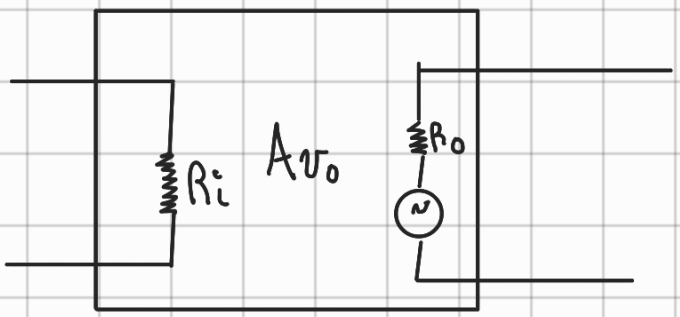
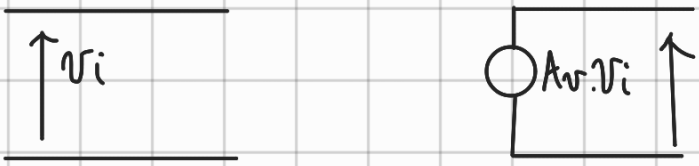
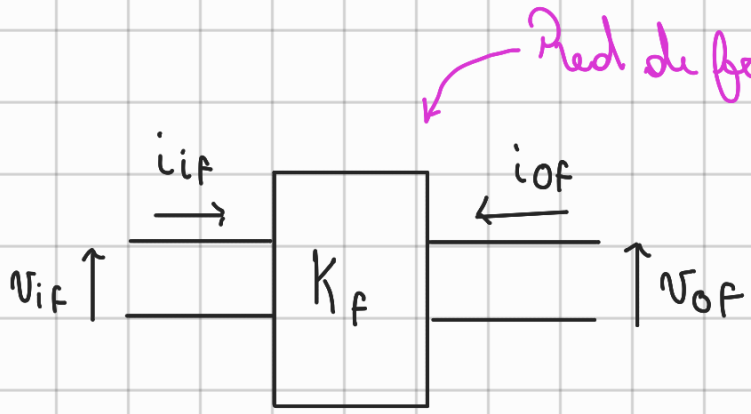
- Ro ideal:

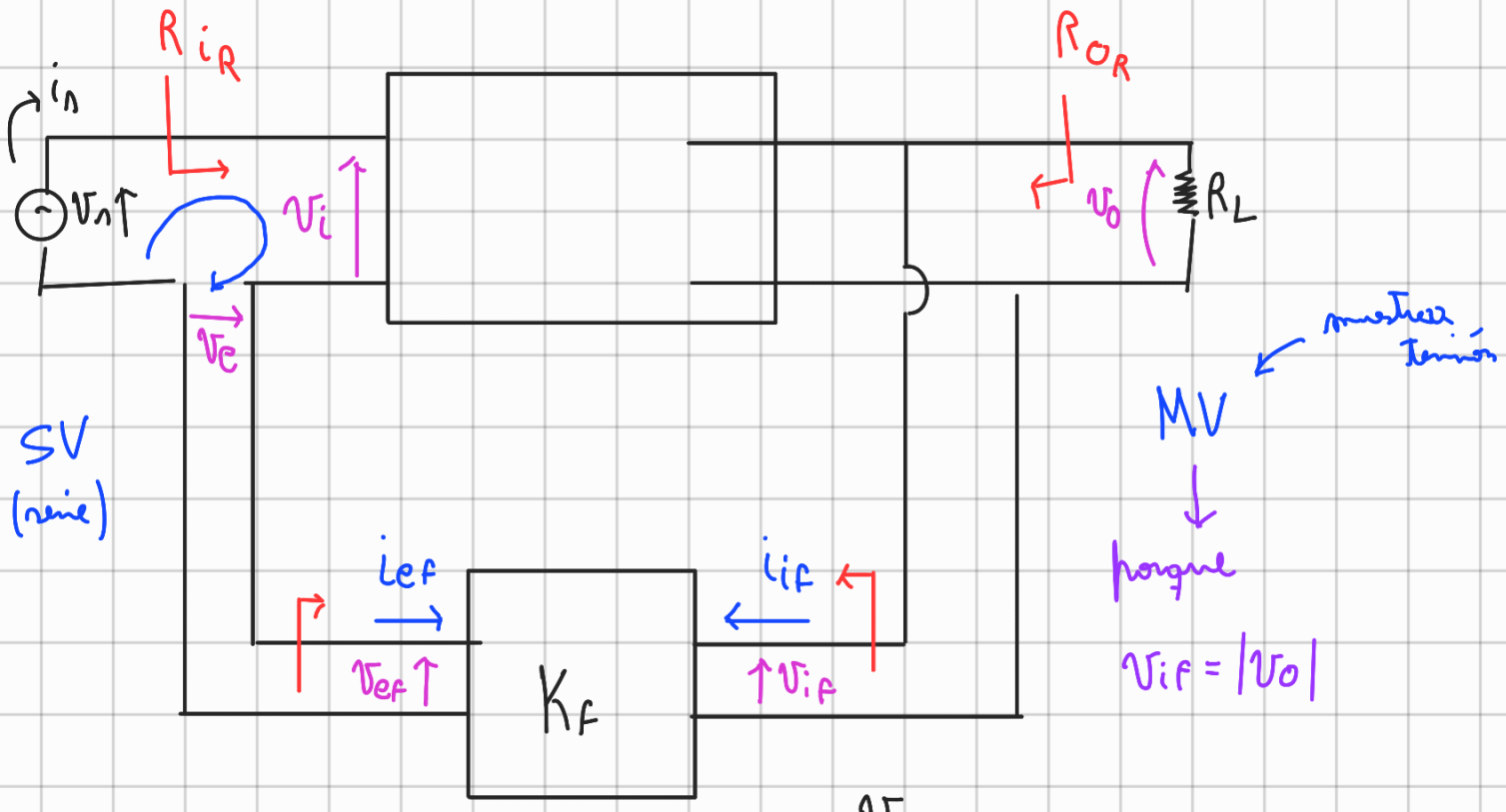


- I ideal:



Con el Feedback vamos a lograr acercarnos al ideal





$$K_f = \frac{v_{of}}{v_{if}}$$

Realimentación negativa: $S_e = S_D - S_f$

↓

Cuando $v_D \oplus \rightarrow v_e \oplus$

$$R_{i_R} = \frac{v_D}{i_D}$$

$$A_{v_o} = \frac{v_o}{v_i} \qquad A_{v_R} = \frac{v_o}{v_D} = \frac{A_{v_o}}{1 + K_p A_{v_o}} = \frac{1}{K_f}$$

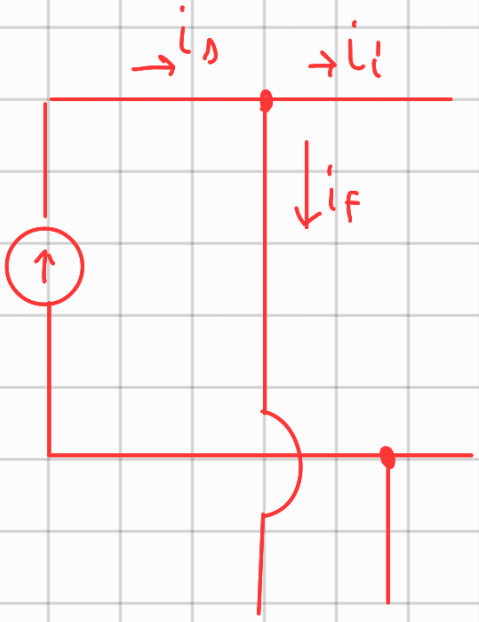
$K_p A_{v_o} = T_1 \gg 1$

$R_{iR} \gg R_i$ (resistencia de entrada sin realimentar)

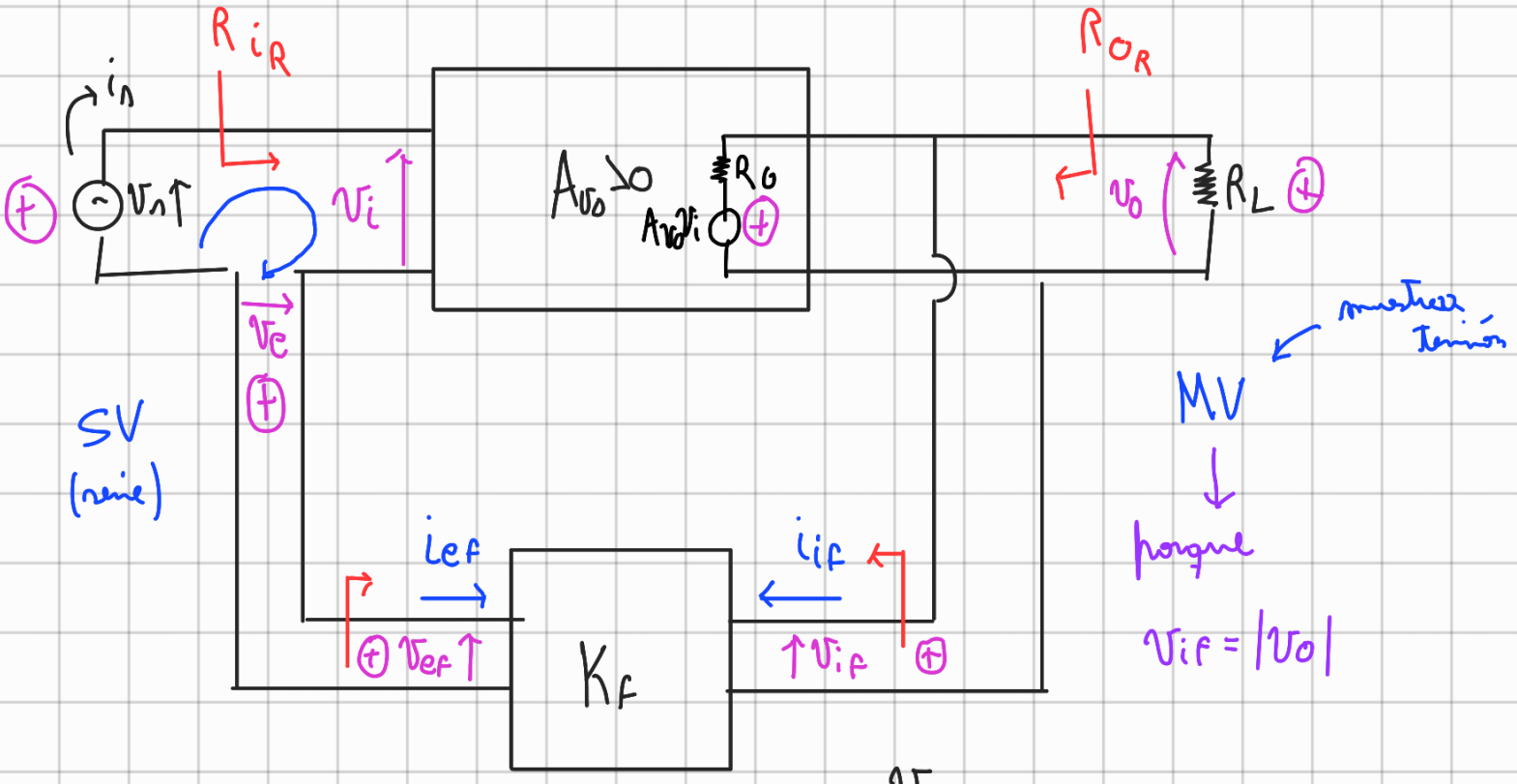
$$R_{iR} = R_i (1 + T) \quad , \quad T = A_{vo} K_f$$

$$R_{oR} = \frac{R_o}{(1+T)}$$

Suma de corrientes:



$$i_D - i_F = i_i$$



muestrea tensión

porque

$v_{if} = |v_o|$

$$K_f = \frac{v_{of}}{v_{if}}$$

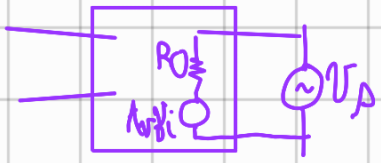
↓

Para que se cumpla $v_i = v_n - v_e$

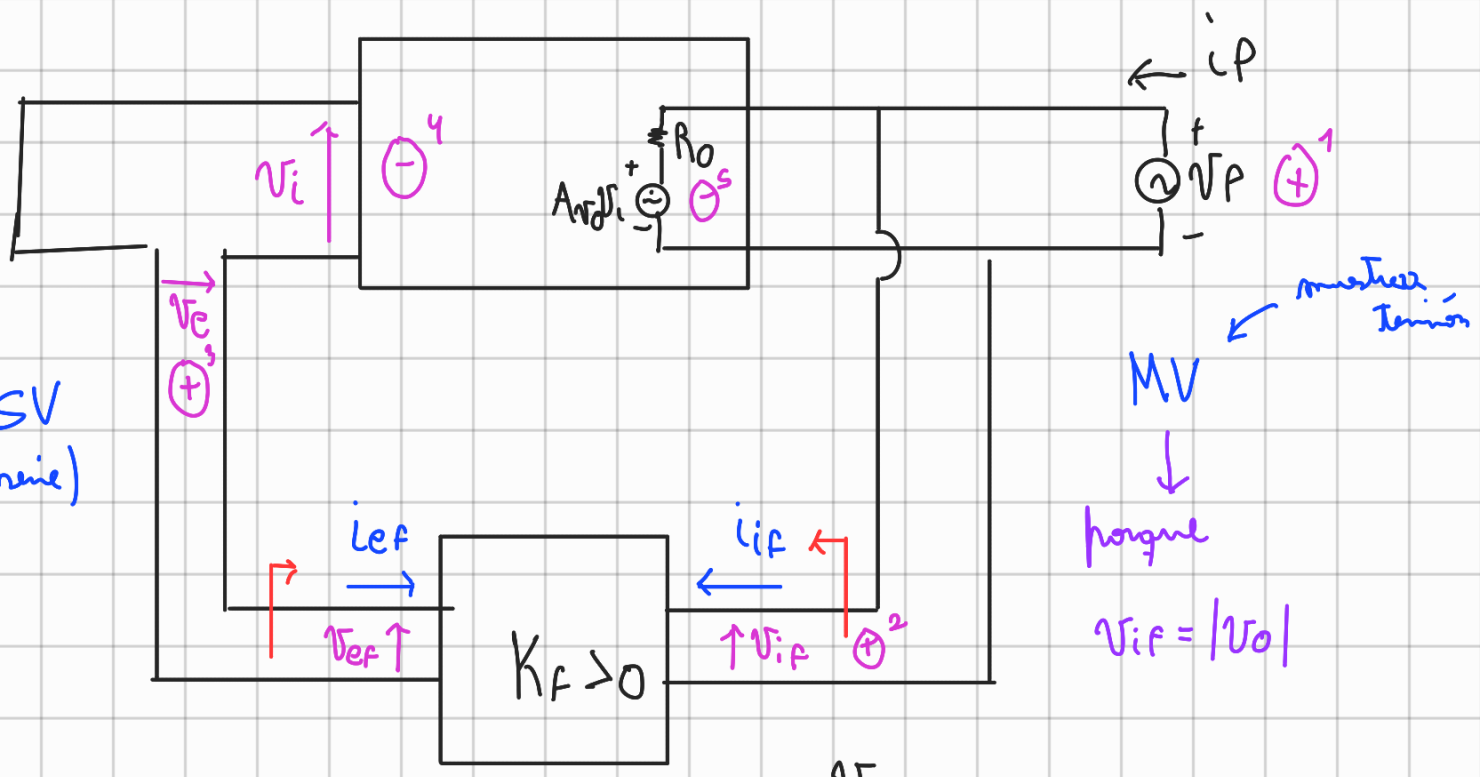
↓

$\Rightarrow K \gtrsim 0$

$R_{O_{SR}}$ (R_O sin realimentar)



$$R_{O_{SR}} = R_O = \frac{V_P}{i_P}$$



$$K_F = \frac{V_{OF}}{V_{IF}}$$

$$R_{OR} = \frac{V_P}{i_{P_R}} \rightarrow i_{P_R} > i_{P_{SR}} \longrightarrow R_{OR} < R_{O_{SR}}$$

$\downarrow$

porque $A_{VO}V_i \downarrow$ y V_P se mantiene fijo