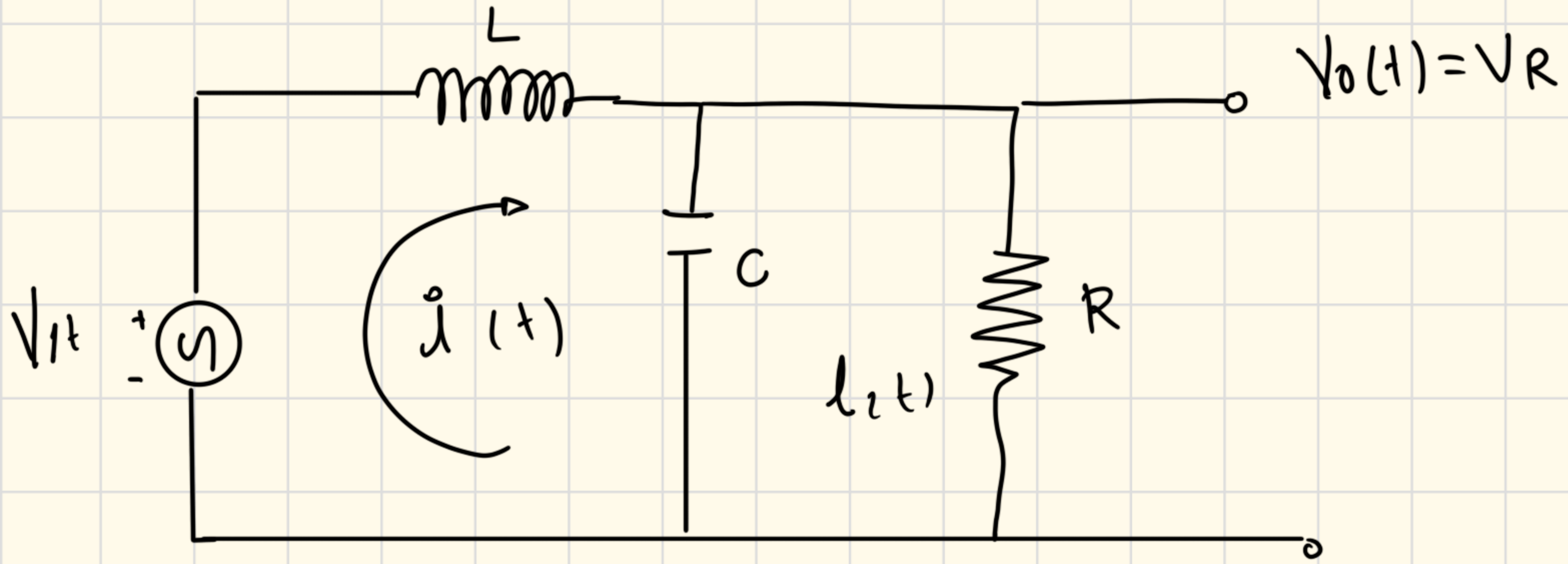

$$\Sigma V = V_i(t)$$

$$V_{i(t)} = V_L + V_C + V_R \qquad V_R = V_o(\text{Salida})$$

$$V_i(t) = L \cdot \frac{di(t)}{dt} + \frac{1}{C}\int i(t)\,dt + R \cdot i(t)$$

$$i_L = i_C = i_R = i(t)$$

$$V(s) = L \cdot s\, I(s) + \frac{1}{C \cdot s} I(s) + R\, I(s)$$

$$V(s) = \left(L \cdot s + \frac{1}{Cs} + R\right) I(s)$$

$$I(s) = \frac{V(s)}{L \cdot s + \frac{1}{Cs} + R}$$

$$V_R = R \cdot I$$

$$I(s) = \frac{V_R}{R}$$

$$\frac{V_R}{R} = \frac{V(s)}{Ls + 1/cs + R}$$

$$H(s) = \frac{V_R}{V} = \frac{\text{Salida}}{\text{entrada}}$$

$$H(s) = \frac{R}{L \cdot s + 1/cs + R}$$

$$H(s) = \frac{RCS}{LCS^2 + RCS + 1}$$