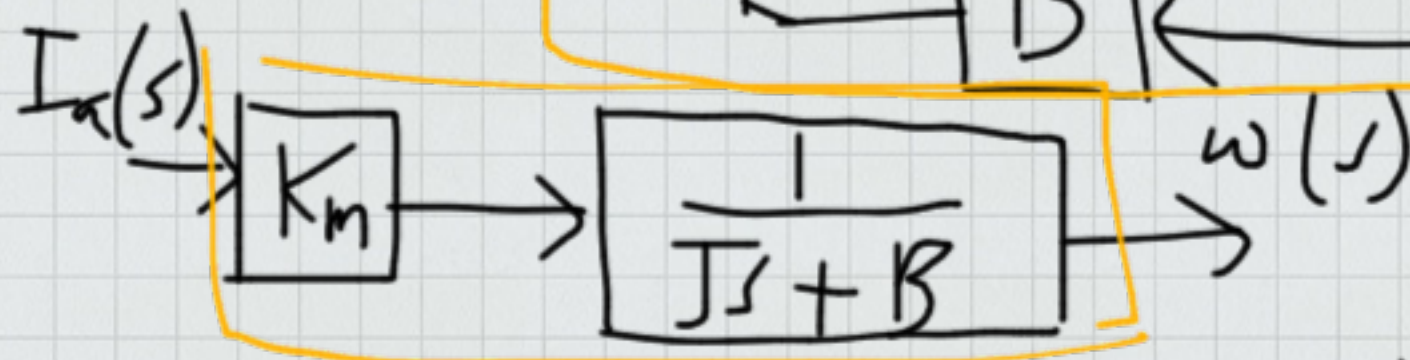
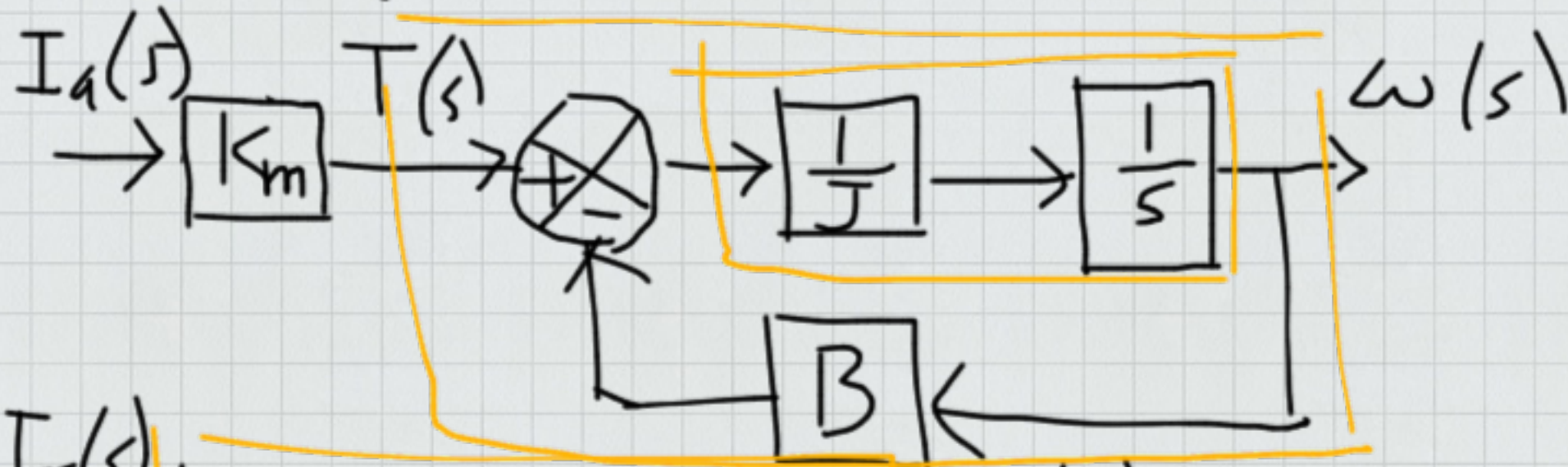


$$H(s) = \frac{I_a(s)}{E_a(s)} = \frac{I_a(s)}{\omega(s)} * \frac{\omega(s)}{E_a(s)} \quad \int dt = \frac{1}{s}$$



$$\frac{\omega(s)}{I_a(s)} = \frac{K_m}{Js + B}$$

$$\frac{I_a(s)}{\omega(s)} = \frac{Js + B}{K_m}$$

$$H(s) = \frac{Js + B}{K_m} * \frac{K_m}{L_a J s^2 + (B L_a + R_a J) s + (B R_a + K_h K_b)}$$