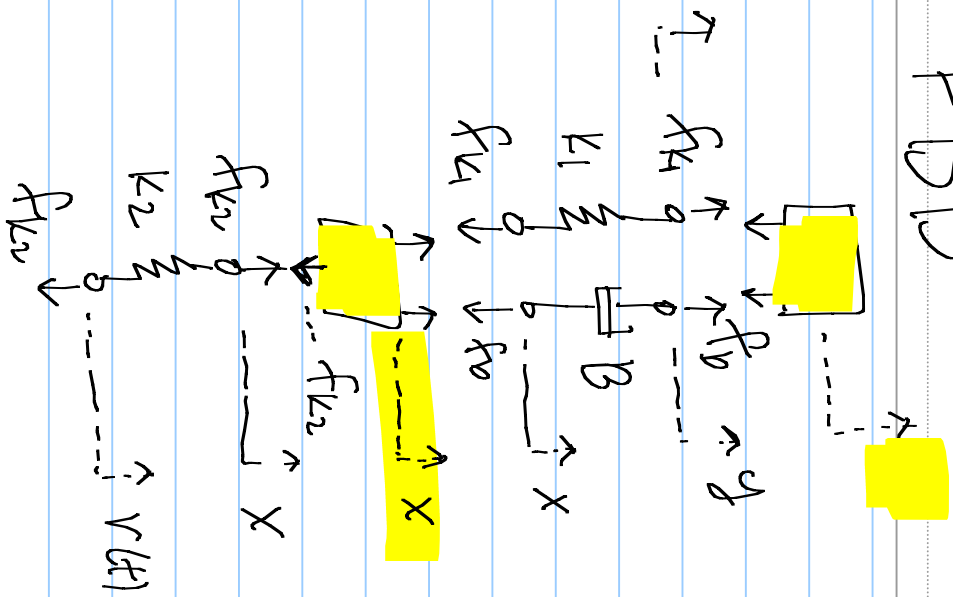


FBD



$$\begin{cases}
 f_{k1} = k_1 (y - x) \\
 f_b = B (\dot{y} - \dot{x}) \\
 f_{k2} = k_2 (x - y)
 \end{cases}$$

$$\sum F_i = m a$$

$$m_1 \ddot{x} = \sum F_i = f_{k1} + f_b - f_{k2}$$

$$m_2 \ddot{y} = -f_{k1} - f_b \quad \text{S.O.S}$$

$$\mathcal{L}(\ddot{x}) =$$

$$\begin{aligned}
 m_1 \ddot{x} &= k_1 (y - x) + B (\dot{y} - \dot{x}) - k_2 (x - y) \\
 m_2 \ddot{y} &= -k_1 (y - x) - B (\dot{y} - \dot{x})
 \end{aligned}$$

