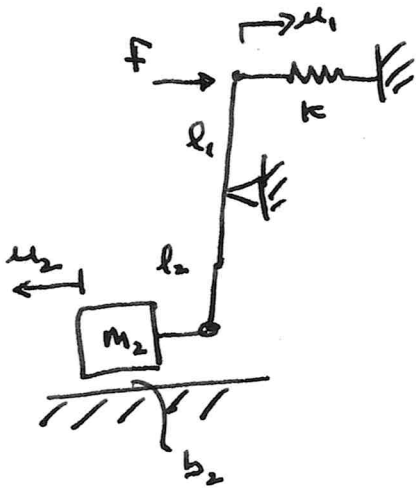
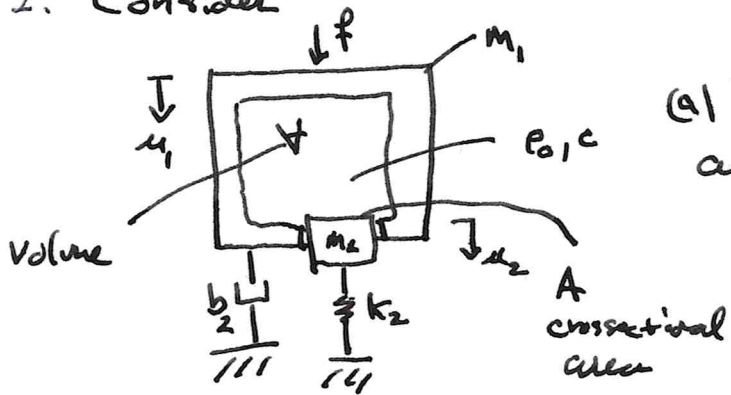


1. Consider



- Determine the electromechanical circuit using the mobility analogy
- Determine the eqns of motion in Laplace s-domain
- Find U_2/U_1

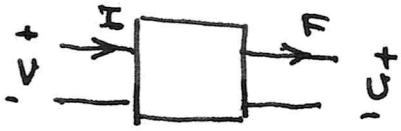
2. Consider



(a) Determine the electromechanical equivalent circuit

(b) Determine the edqs of motion

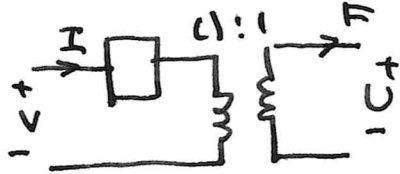
3. Given the two port and the model



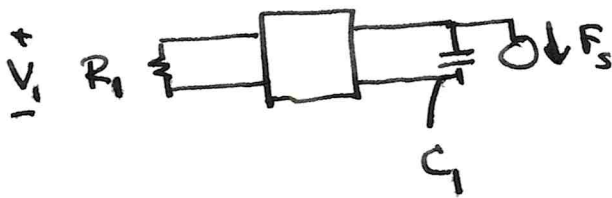
$$V = \frac{1}{sC} I + \frac{E_0}{s\lambda_0} U$$

$$F = \frac{E_0}{s\lambda_0} I$$

(a) Evaluate the circuit required of the form



(b) The circuit is augmented as



Find $\frac{V_1(s)}{F_s(s)}$