

Problem 1.8

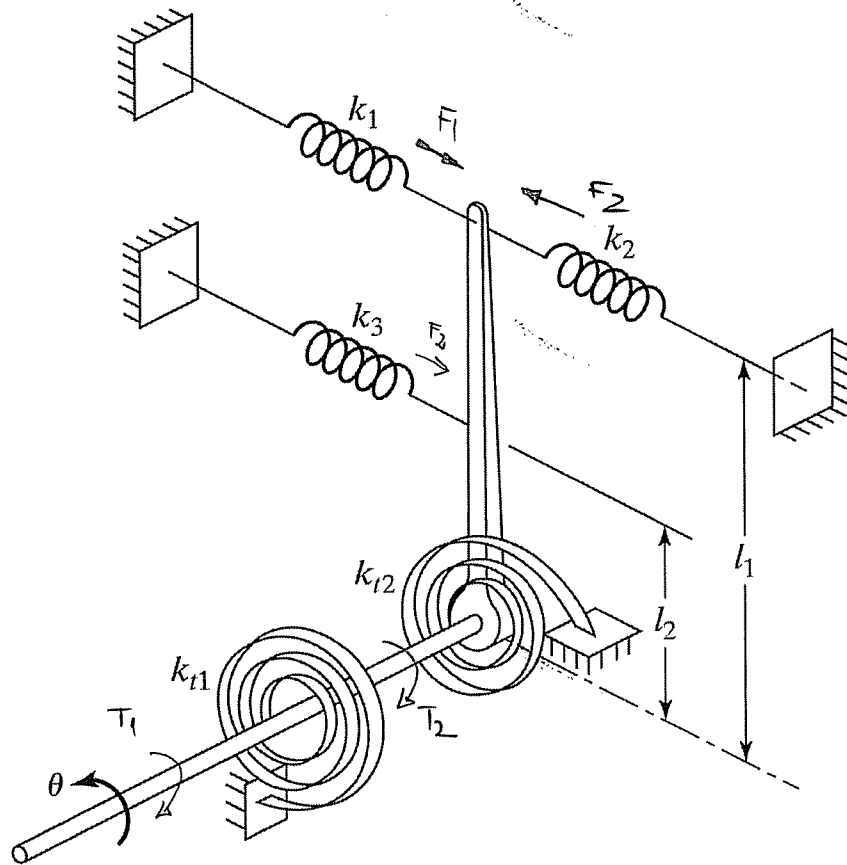


Figure 1.60

I'm looking for  $k_t^{EQ}$  for which

$$k_t^{EQ} \cdot \theta = k_{t1} \theta + k_{t2} \theta + (l_2 \cdot \theta \cdot k_3) l_2 + (l_1 \cdot \theta \cdot k_1) l_1 + (l_1 \cdot \theta \cdot k_2) l_1$$

$$\Rightarrow k_t^{EQ} \cdot \theta = \theta [k_{t1} + k_{t2} + l_2^2 k_3 + l_1^2 (k_1 + k_2)]$$

$$\Rightarrow k_t^{EQ} = k_{t1} + k_{t2} + l_2^2 k_3 + l_1^2 (k_1 + k_2)$$

Note: A small deformation assumption was made.

