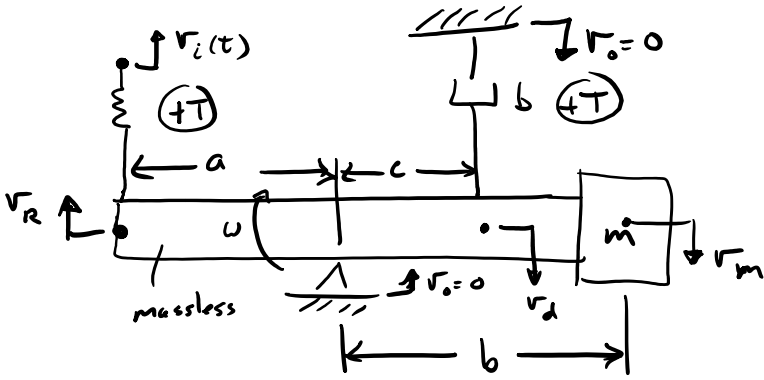


More mechanical systems

Example

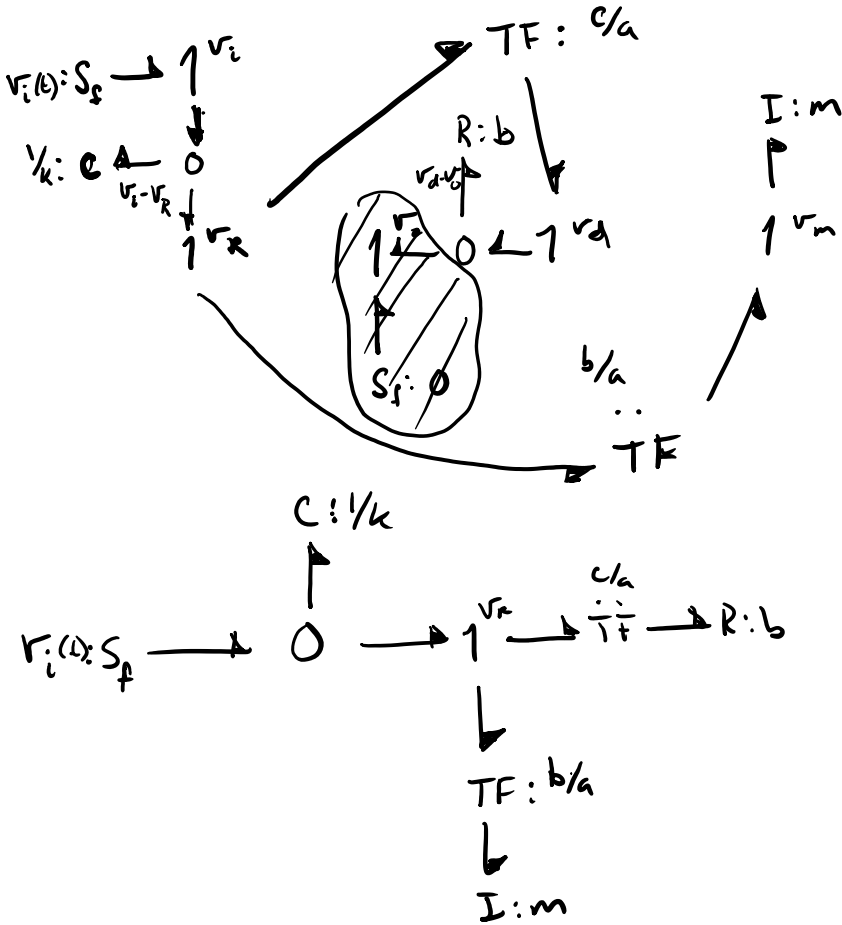
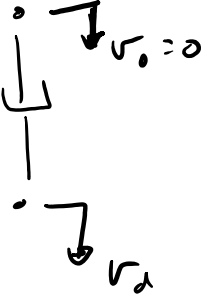
no gravity



$$\omega = \frac{v_R}{a} = \frac{v_d}{c}$$

$$v_d = \frac{c}{a} v_R$$

$$\rightarrow \begin{matrix} \text{TF} \\ \frac{c/a}{v_d} \end{matrix} \rightarrow$$



$$\begin{matrix} c/a \\ \vdots \\ \text{TF} \end{matrix} \begin{matrix} f_2 \\ \vdots \\ f_1 \end{matrix}$$

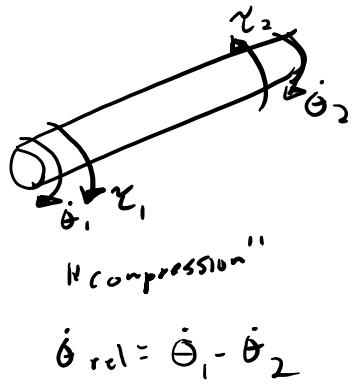
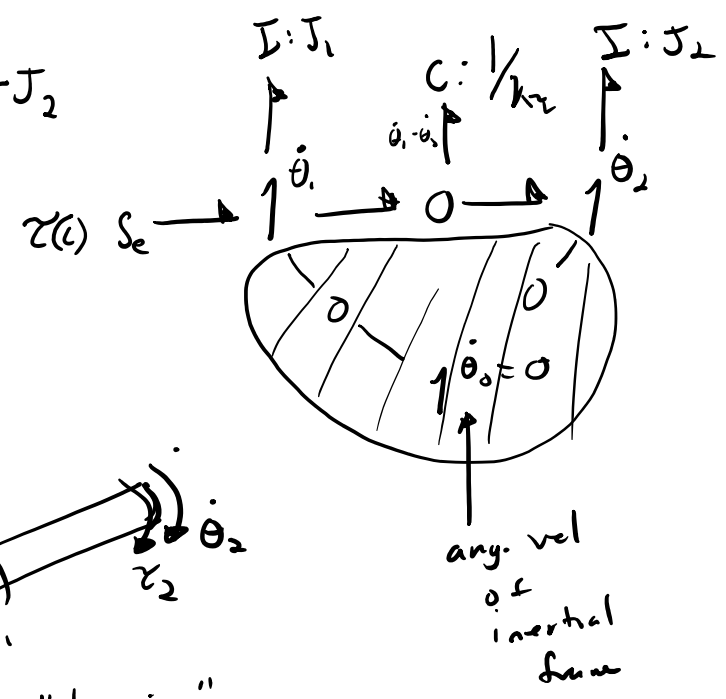
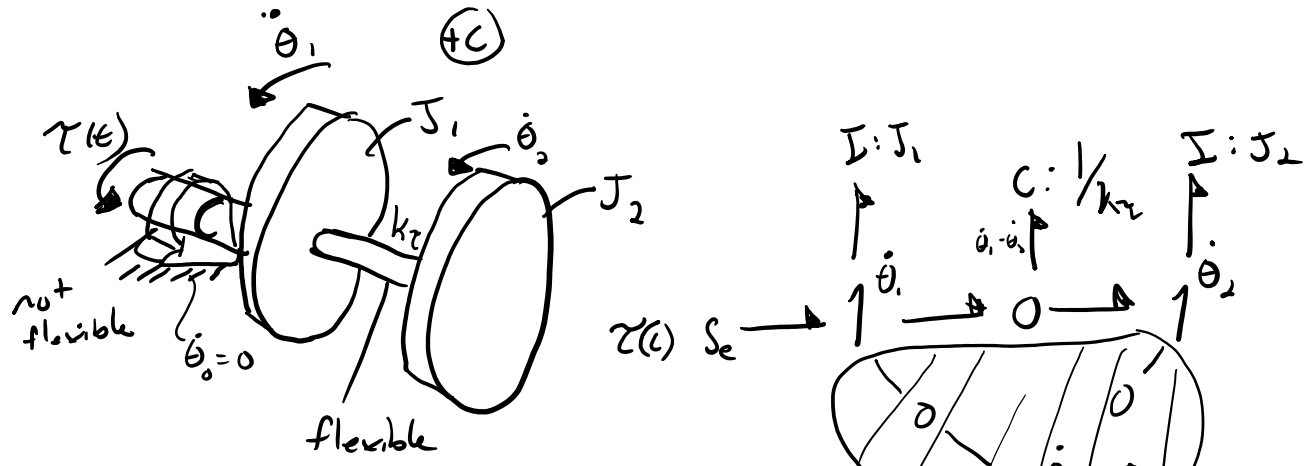
$$e_1 = c/a e_2$$

$$c/a f_1 = f_2$$

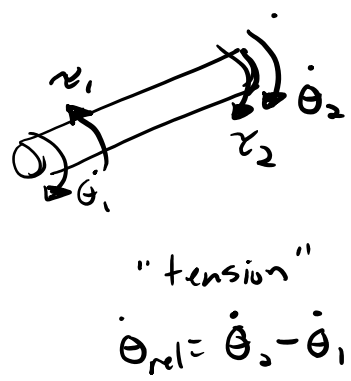
$$\omega = \frac{v_R}{a} = \frac{v_m}{b}$$

$$v_m = \frac{b}{a} v_R$$

Example: rotation mechanical



$\dot{\theta}_{rel} = \dot{\theta}_1 - \dot{\theta}_2$



$\dot{\theta}_{rel} = \dot{\theta}_2 - \dot{\theta}_1$

Exercise

