

Step 2: 1-junc
for each vel.

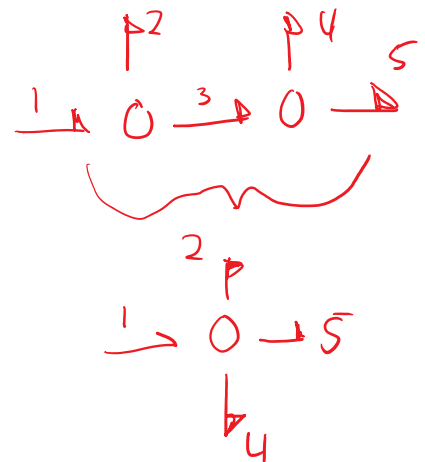
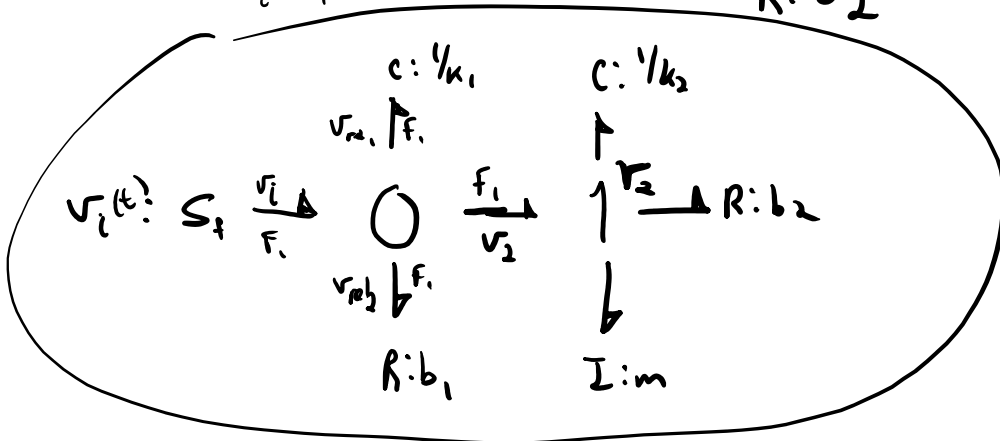
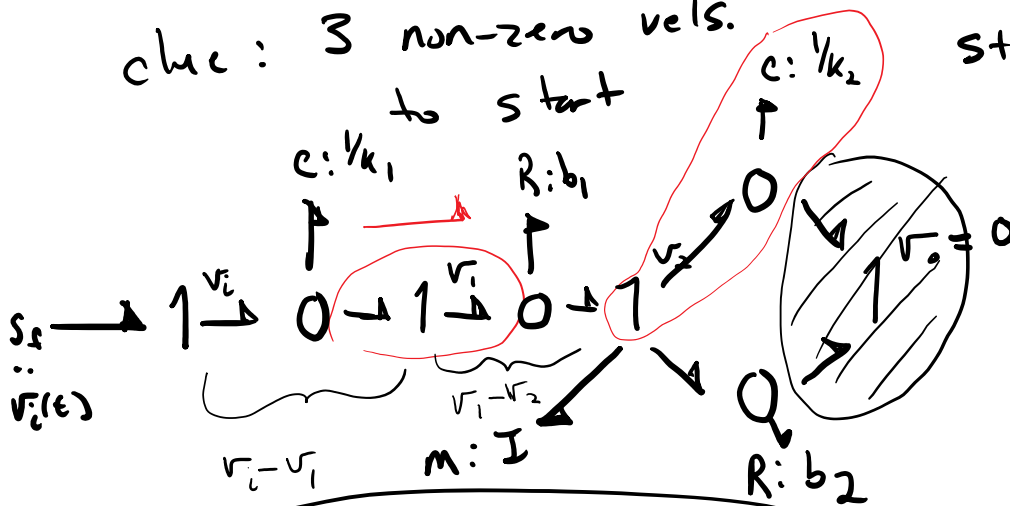
Step 1: specify velocities
and force sign convention.

Step 3: Attach elements
to 1-junctions

Step 4: Add 0-junctions
for rel. vel. and
attach elements.

Step 5: Eliminate zero
vel. bonds/simplify

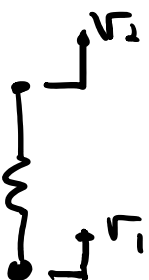
chc: 3 non-zero vels.
to start



Tension



Compression





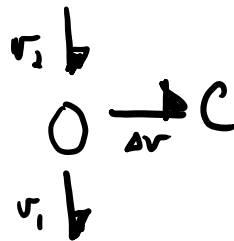
$$\Delta P = F v_2 - F v_1$$


should
be positive

$$\Delta P = \cancel{F} \Delta v = \cancel{F} v_2 - v_1$$

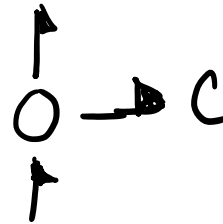
$$\Delta v = v_2 - v_1$$

$$\Delta v + v_1 - v_2 = 0$$

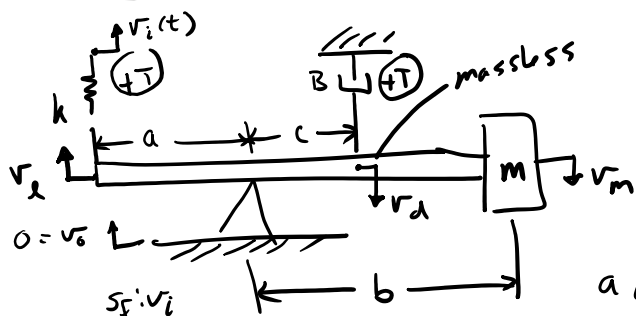




$$\Delta P = -F v_2 + F v_1$$



Example



no gravity

ω is same for the beam

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

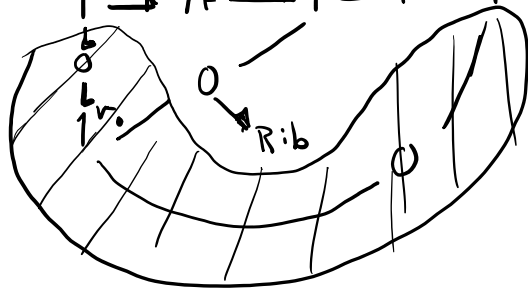
$$v_{rels} = v_i - v_e$$

$$V_{rels} - V_i + V_e = 0$$

$$\frac{c}{\lambda} \nu_L = \nu_d \quad m \quad \frac{e_1 d}{f_1} \quad T F \quad \frac{e_2 d}{f_2}$$

$$e_1 = m e_2$$

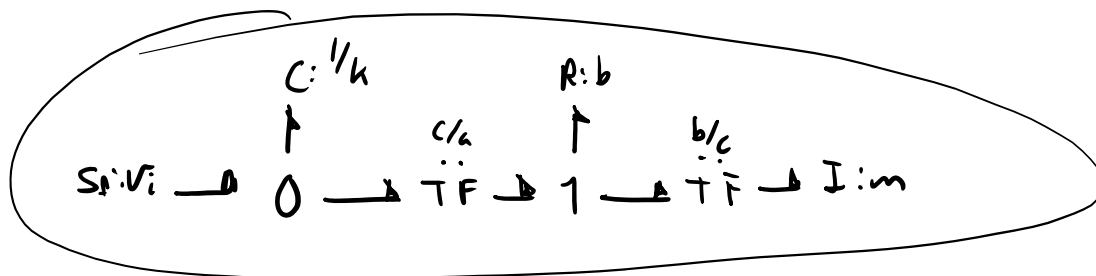
$$(mf_1 = f_2)$$



$$C\omega = v_d$$

$$b \omega = v_m$$

$$\frac{v_d}{c} = \frac{v_m}{b} \Rightarrow \frac{b}{c} v_d = v_m$$



Rotation

