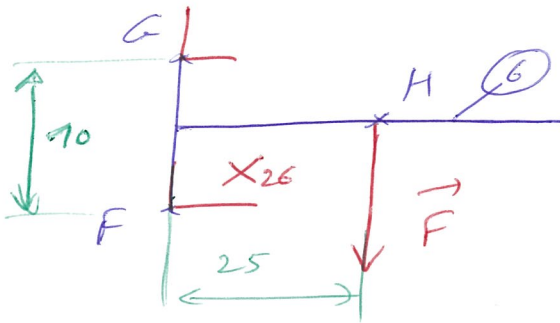


Escalator

On wire 6

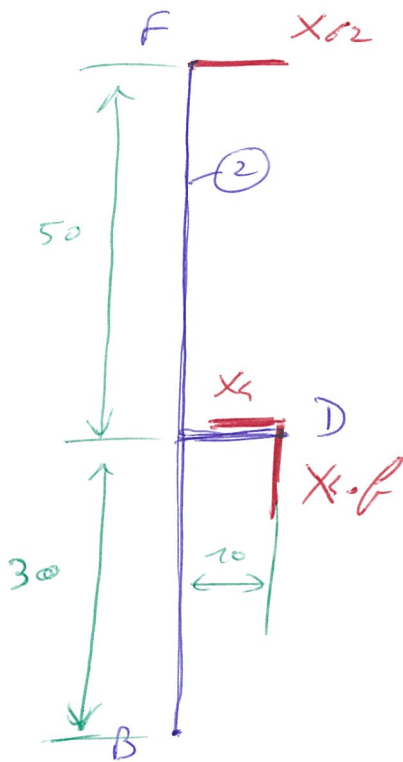


$$\sum \vec{n}(G) = \vec{0}$$

$$X_{26} \cdot 10 - F \cdot 25 = 0$$

$$X_{26} = F \cdot \frac{25}{10}$$

On wire 2+5



$$\sum \vec{n}(B) = \vec{0}$$

$$-X_{62} \cdot 80 + X_4 \cdot 30 - \overset{11}{\cancel{X_4}} \cdot 10 = 0$$

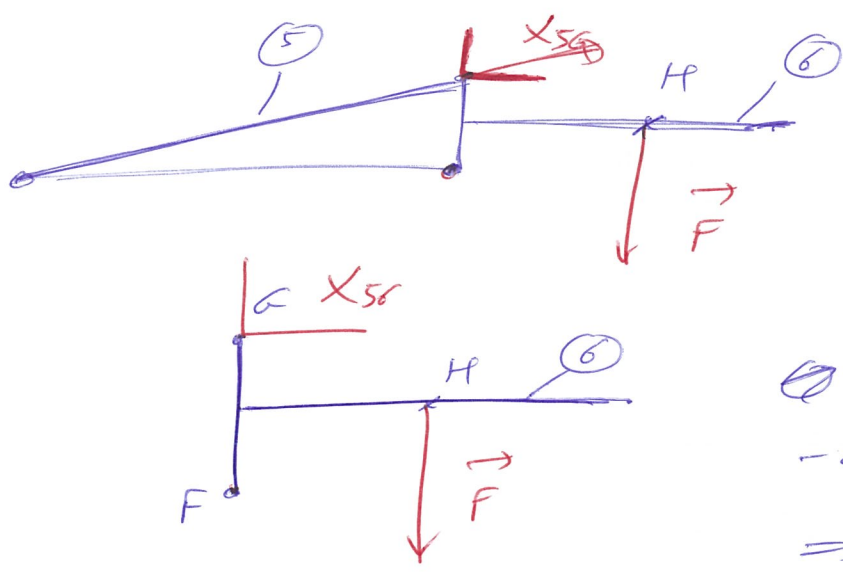
$$\frac{25}{10} F \cdot 80 + X_4 \cdot 26 = 0$$

$$F = -\frac{26}{200} X_4$$

$$F = -\frac{13}{100} X_4$$

(2)

Escalator



$$-25 F - 10 X_{56} = 0$$

$$\Rightarrow X_{56} = -\frac{25}{10} F$$

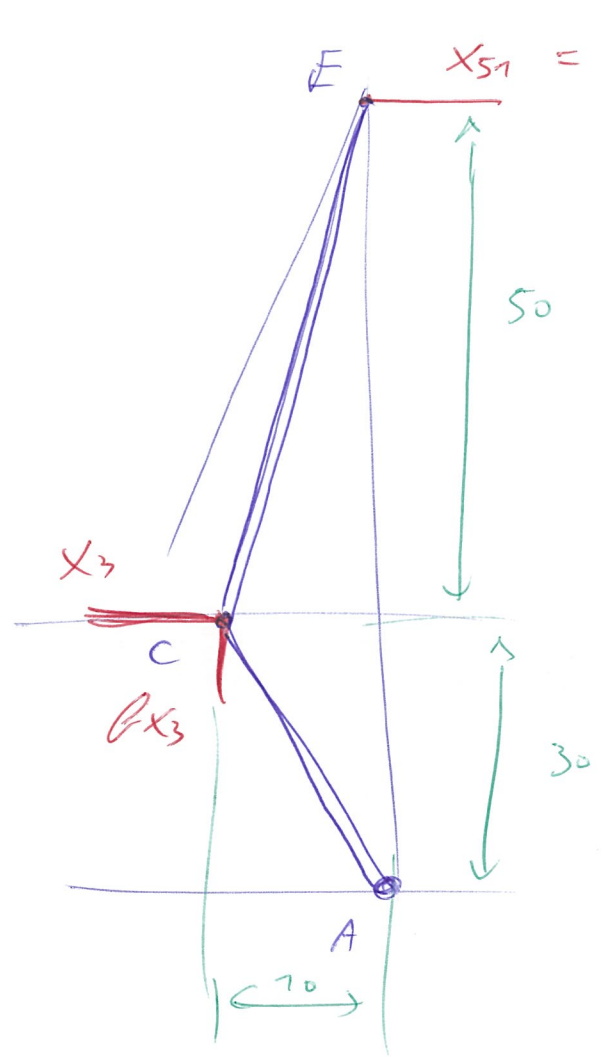
$$X_{51} = \frac{25}{10} F > 0$$

$$-\frac{25 F}{10} \times 80 + 30 X_3 + 10 X_3 = 0$$

$$200 F + 34 X_3 = 0$$

$$\Rightarrow \frac{X_3}{F} = + \frac{100}{17}$$

$$Q_{max} = 35 \times$$



Reducteur de drone

On se place sur PS (S)

Entrée P1 (1)

Sortie P2 (2)

$$\frac{W_{sortie}}{W_{entree}} = \frac{W_{25}}{W_{15}} = - \frac{Z_1}{Z_5} \frac{Z_5}{Z_2} = - \frac{Z_1}{Z_2}$$

$$\frac{W_{S2}}{W_{12} - W_{S2}} = \frac{Z_1}{Z_2}$$

$$Z_2 W_{S2} = Z_1 (W_{12} - W_{S2})$$

$$W_{S2} (Z_2 + Z_1) = Z_1 W_{12}$$

$$\frac{W_{S2}}{W_{12}} = \frac{Z_1}{Z_2 + Z_1} = \frac{W_{PS/P2}}{W_{P1/P2}}$$