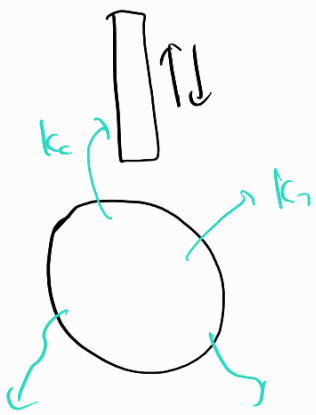
Q_i (intrinsic)

Q_c (coupling)



$$Q_i = \frac{\omega}{k_i} \qquad Q_c = \frac{\omega}{k_c}$$

$$k_{tot} = k_i + k_c \qquad \frac{1}{Q_{tot}} = \frac{1}{Q_i} + \frac{1}{Q_c}$$