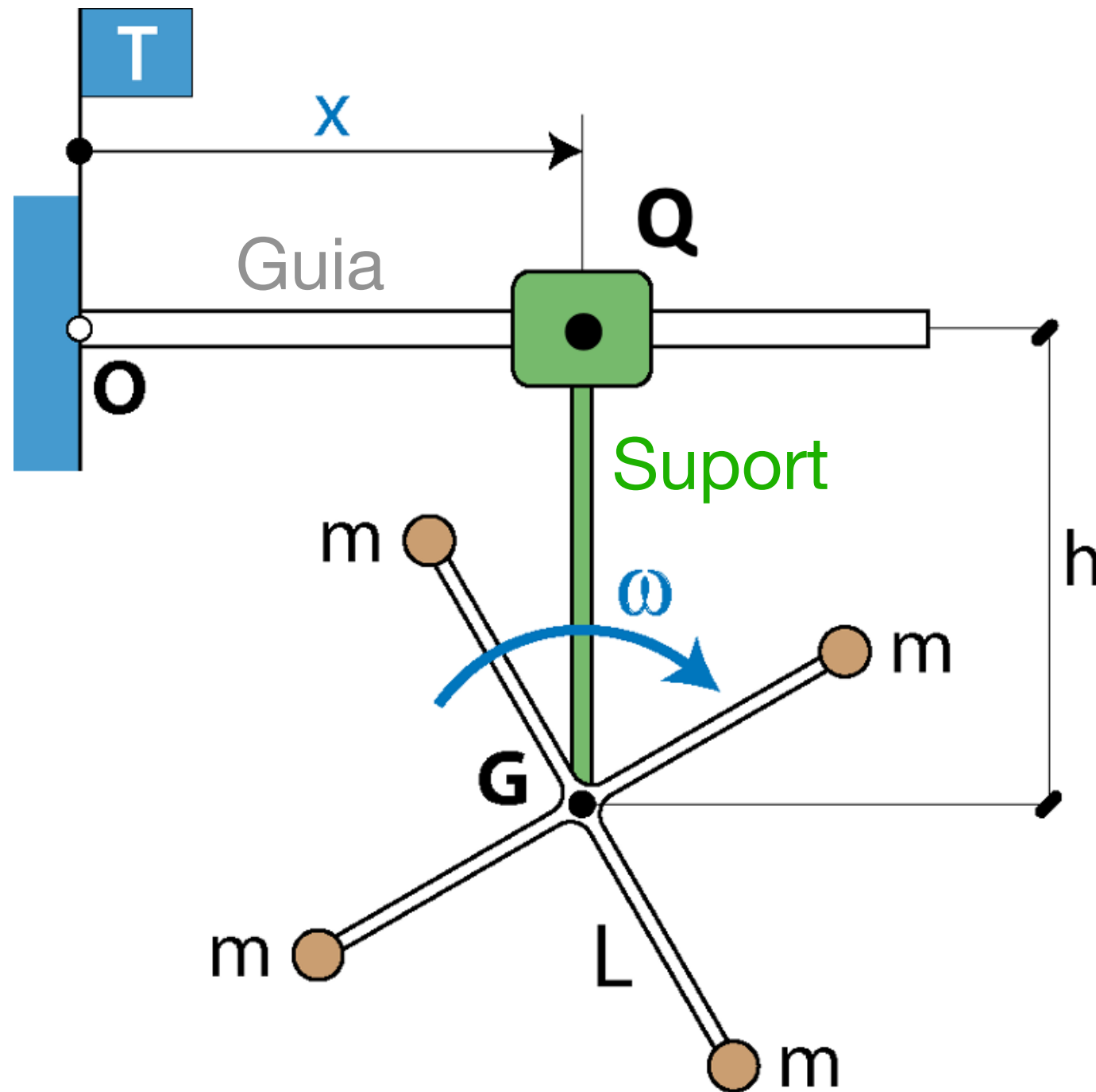


11P

Teoremes vectorials I

Exercicis de càlcul del moment cinètic

Problema 3D

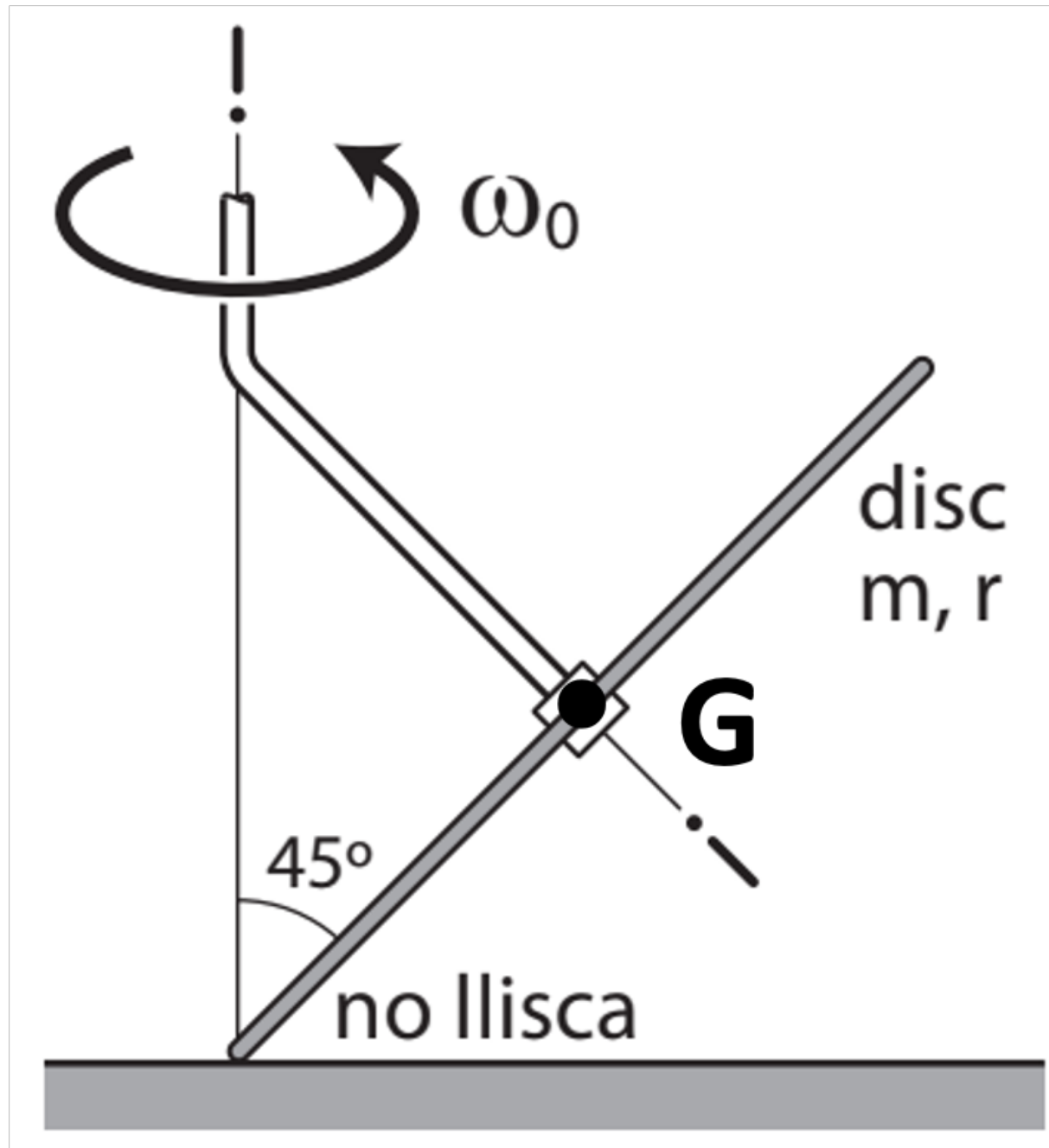


$$\bar{H}_{RTQ}(\mathbf{Q})?$$

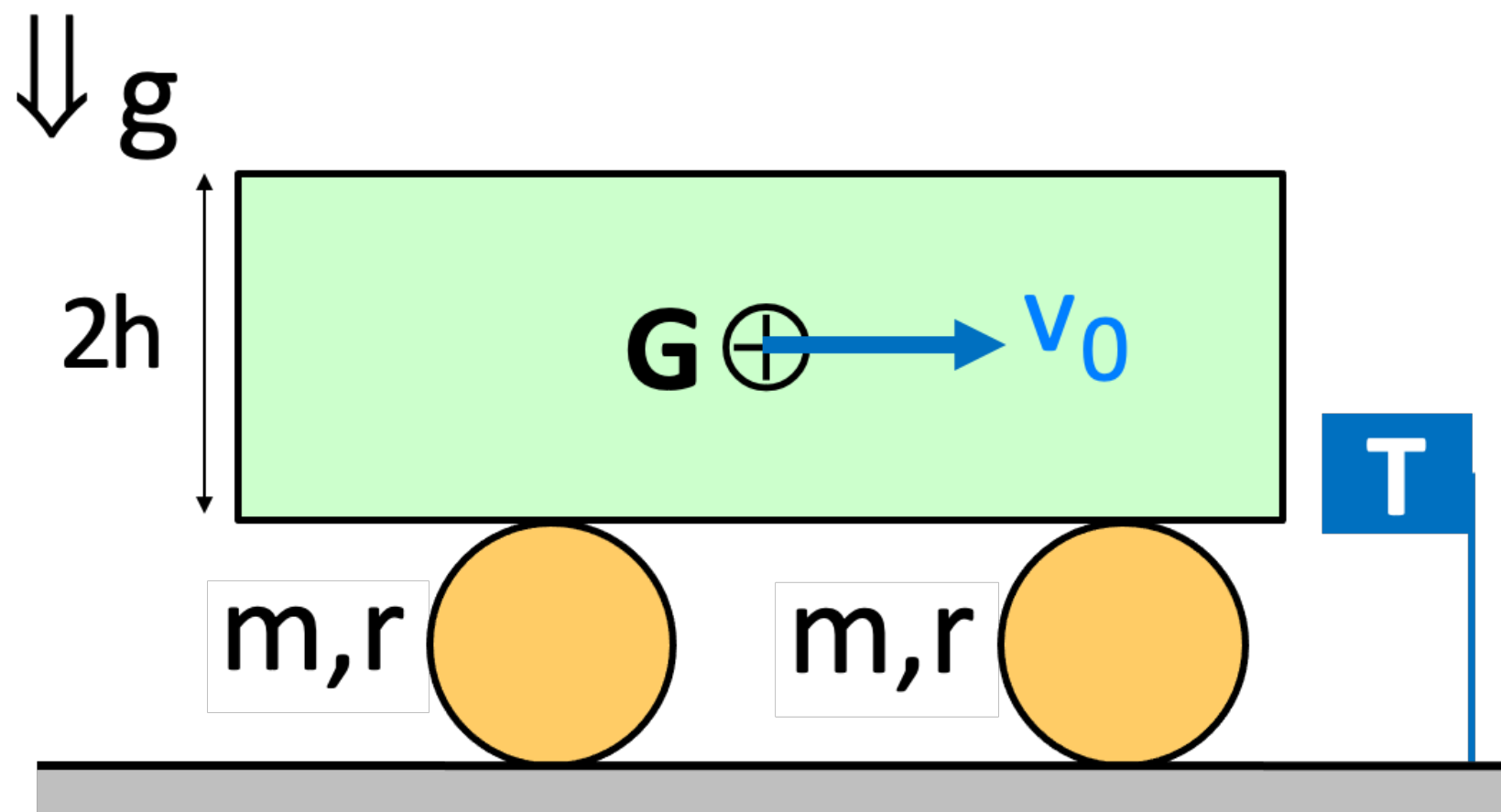
$$\bar{H}_{RTO}(\mathbf{O})?$$

Només les 4 masses puntuals són de massa no negligible

$$\bar{H}_{RTG}(\mathbf{G})?$$

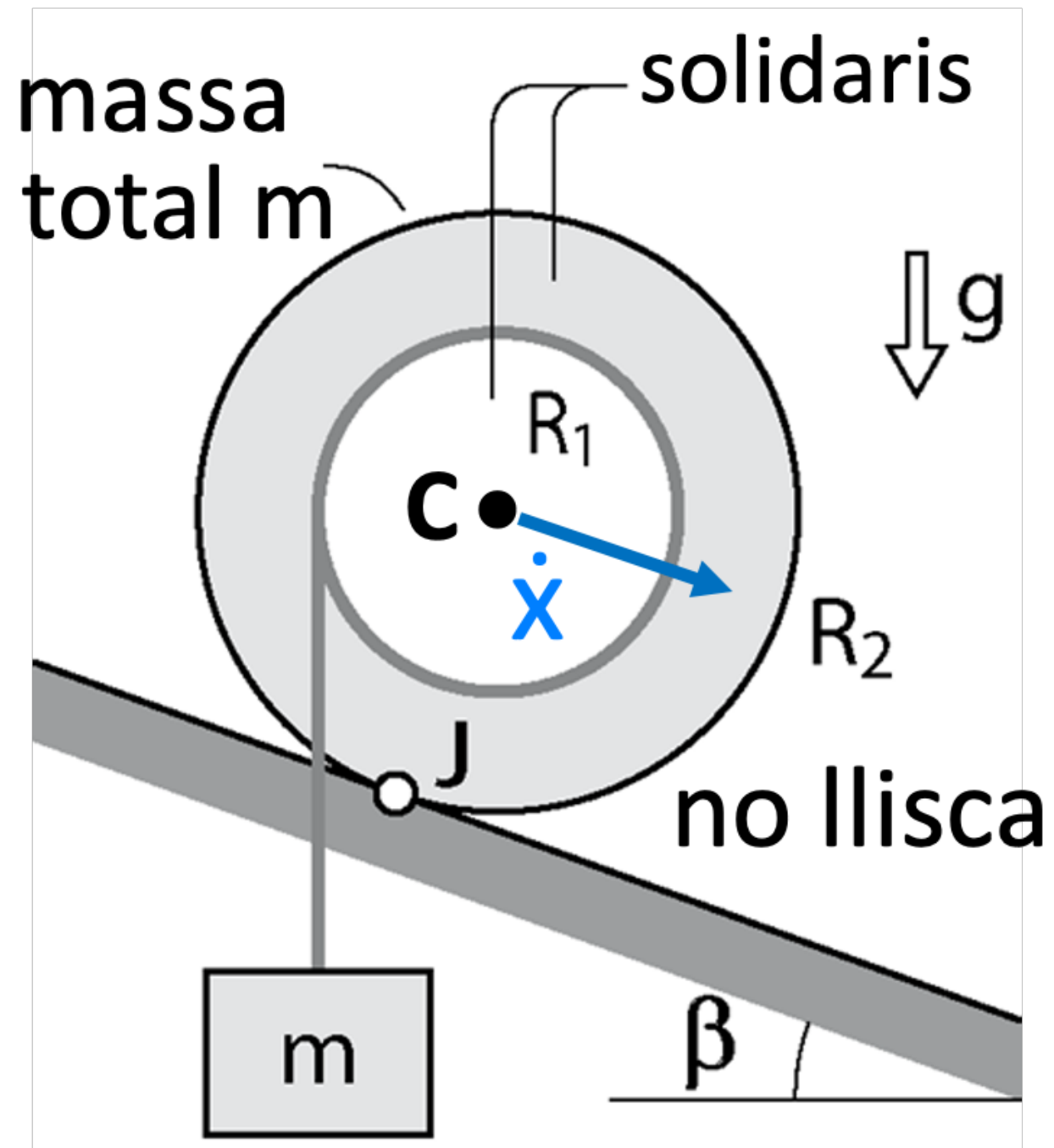


$$\bar{H}_{\text{RTG}}(\mathbf{G})?$$

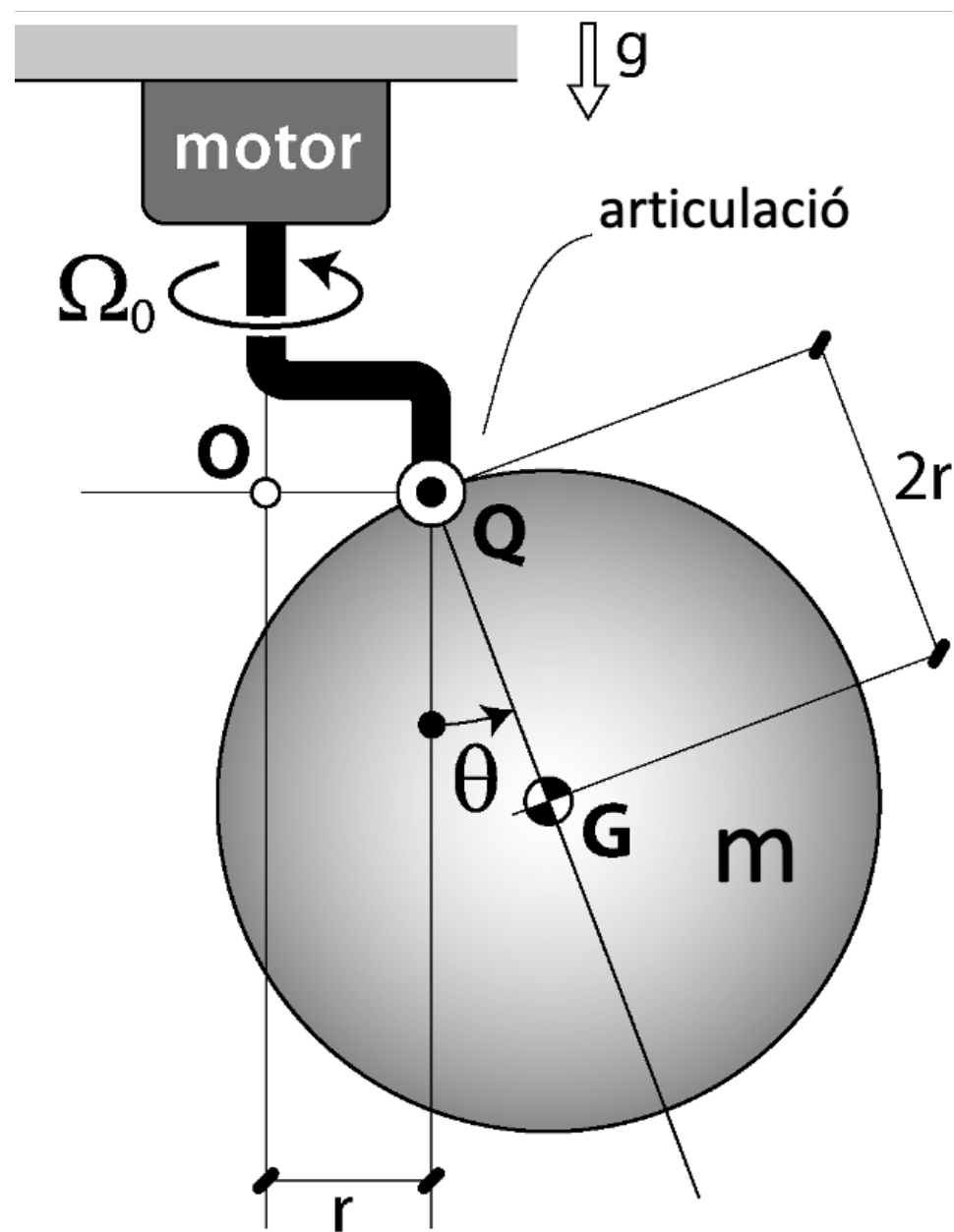


les rodes no llisquen

$$\bar{H}_{RTC}(\mathbf{c})?$$

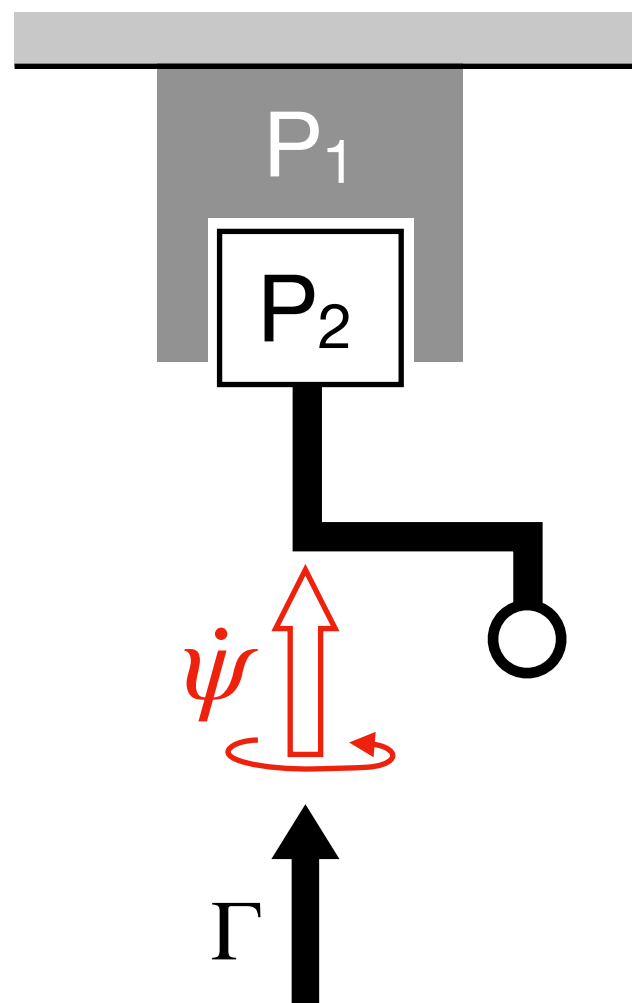


Pèndol esfèric giratori



- Eq. mov. per a θ ?
- Parell motor que garanteix Ω_0 ?

Tractament de motors

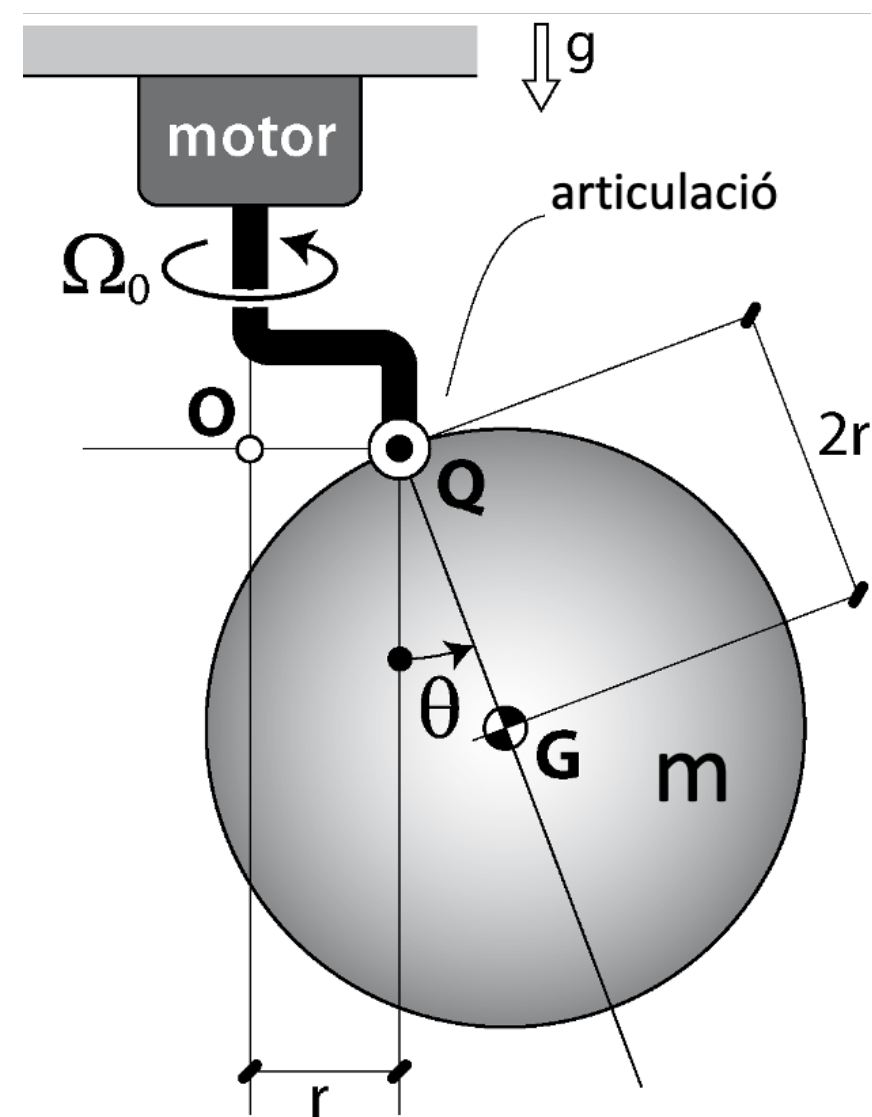


En general

En un motor:

O bé sabrem Γ , i $\dot{\psi}$ serà incògnita

O bé sabrem $\dot{\psi}$, i Γ serà incògnita

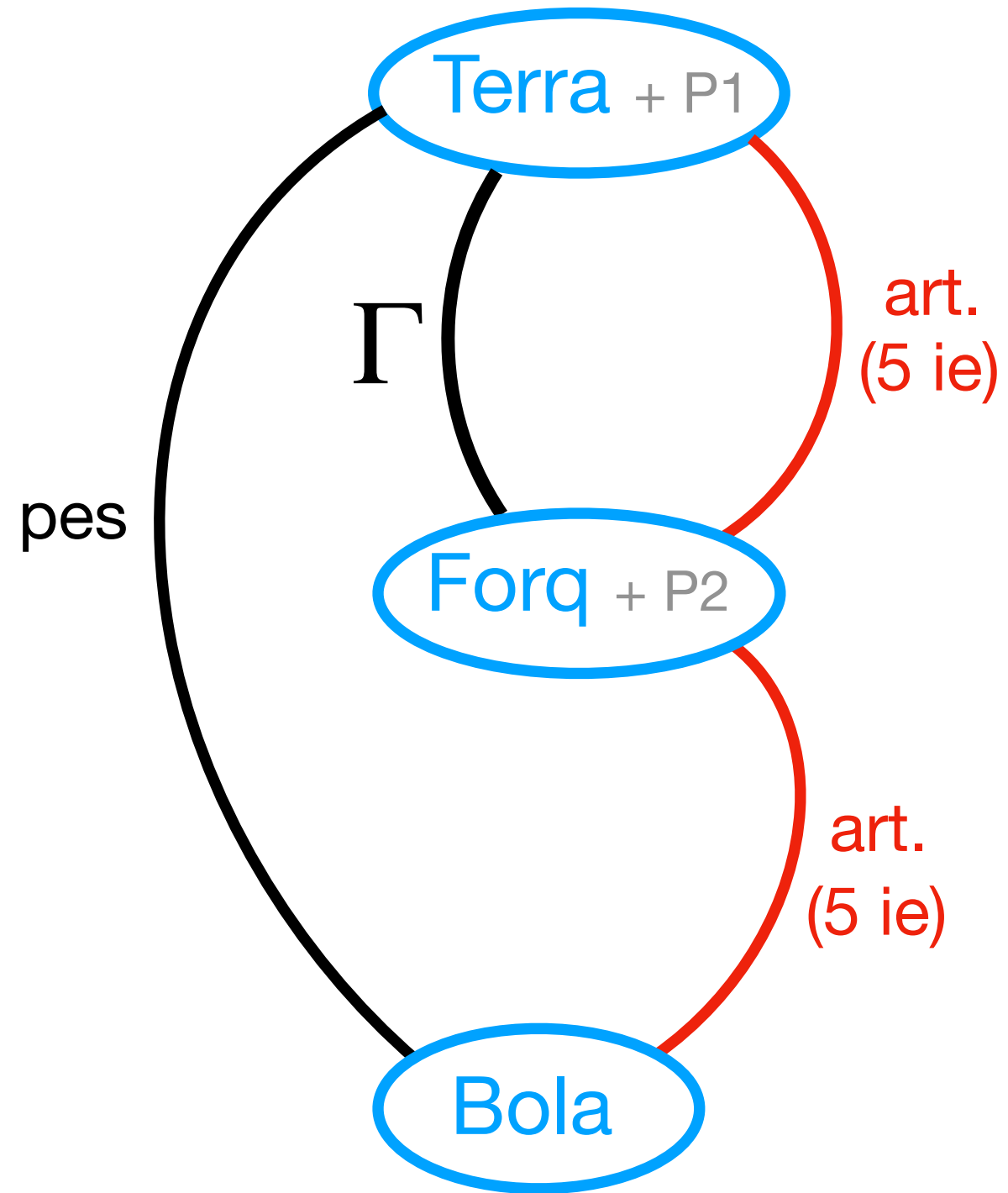
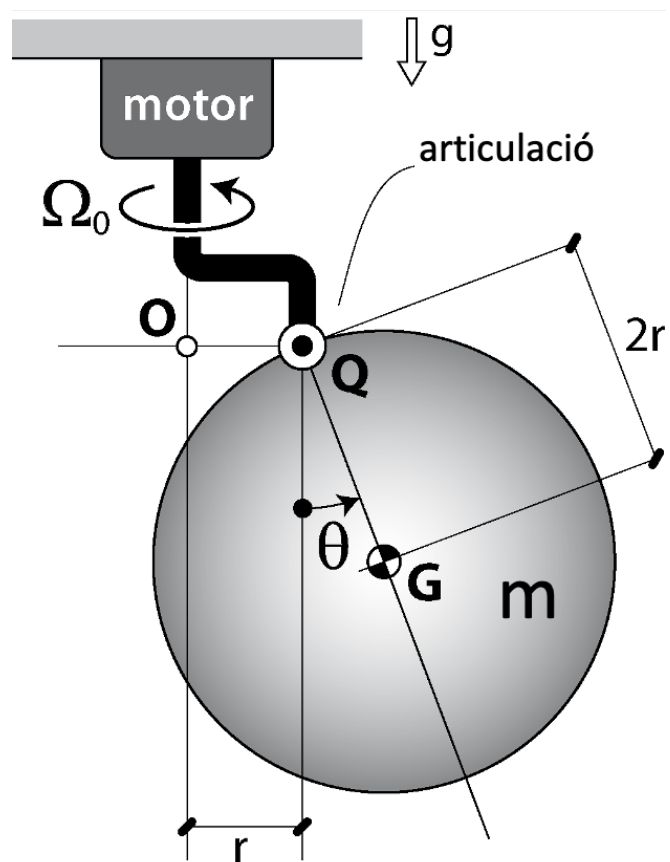
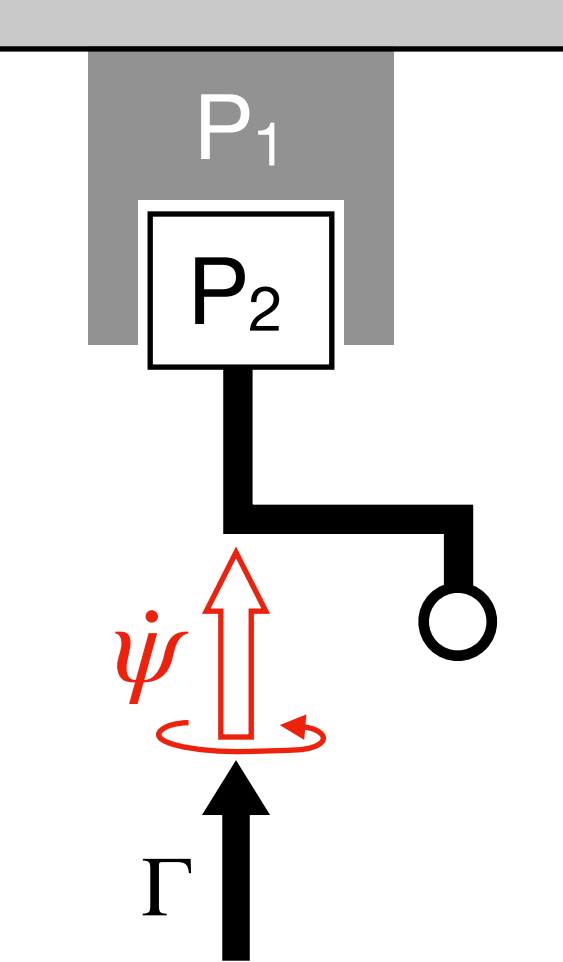


En aquest exercici

$$\dot{\psi} = \Omega_0 \Rightarrow \ddot{\psi} = 0 \text{ (coneguda)}$$

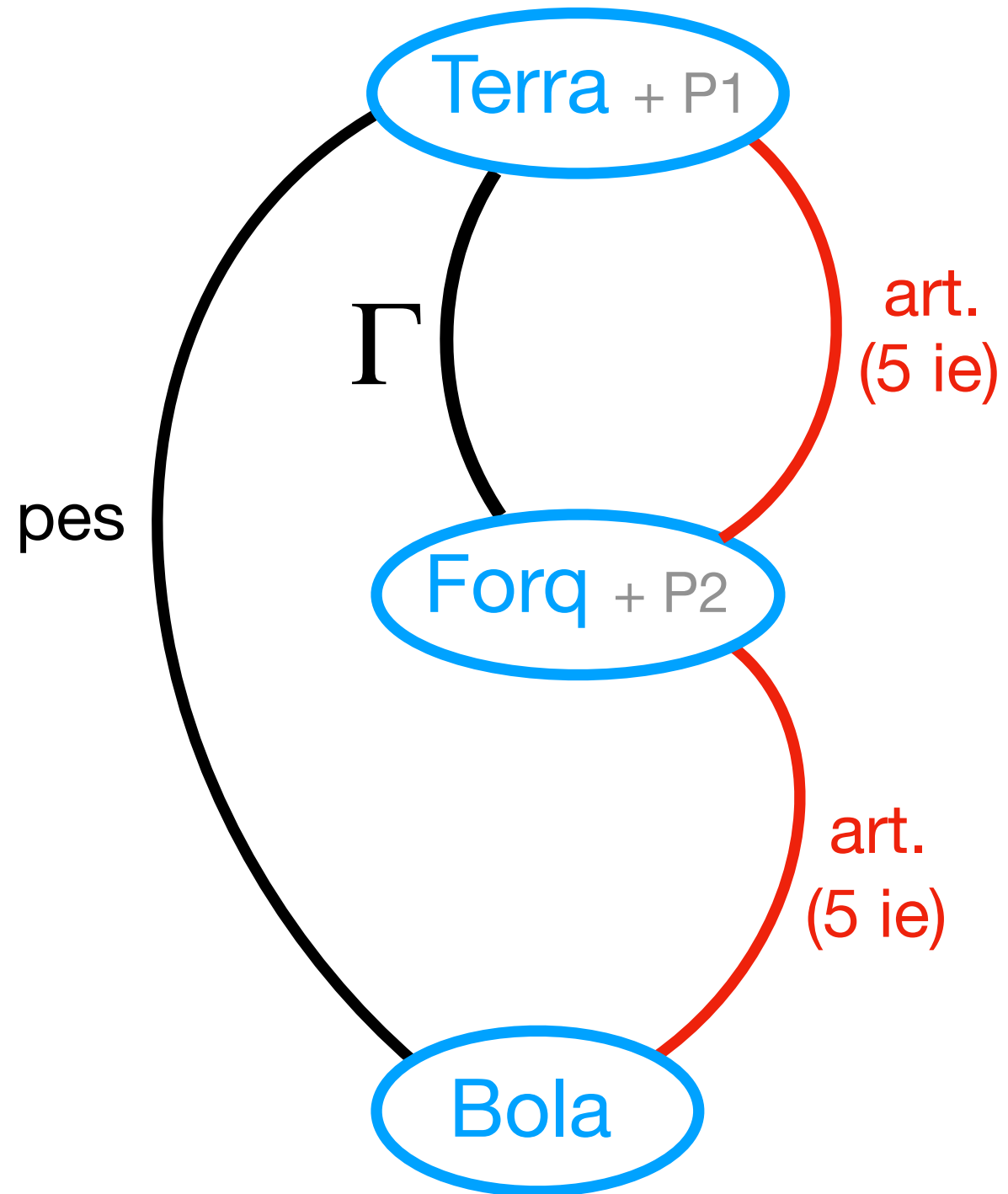
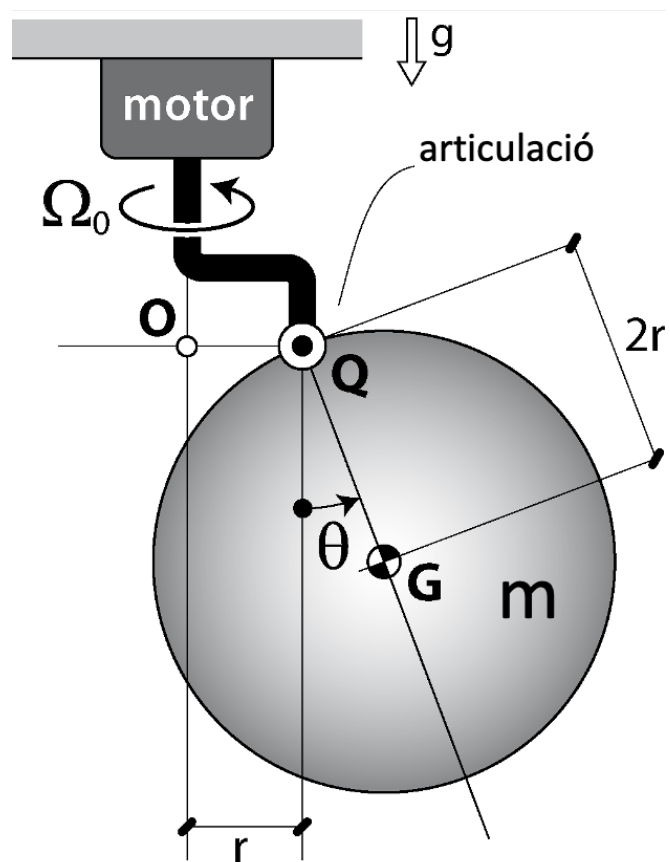
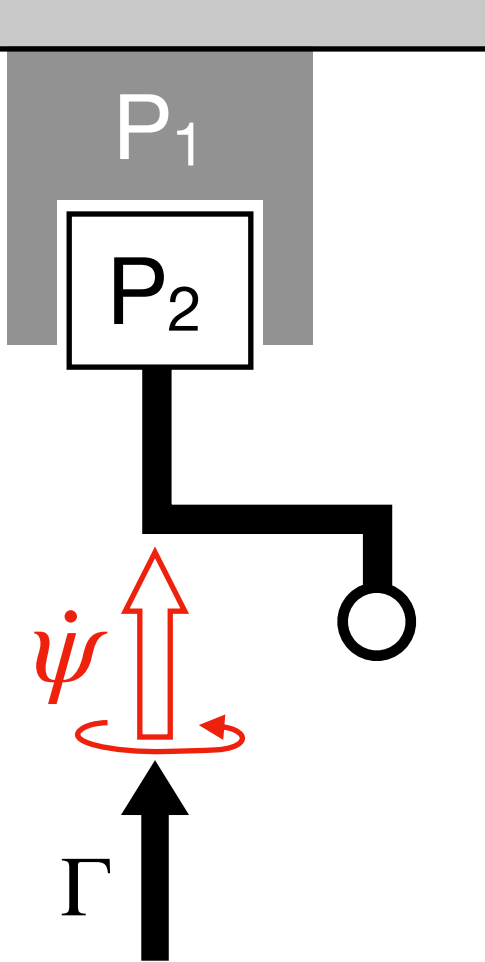
Γ serà incògnita

Diagrama general d'interaccions

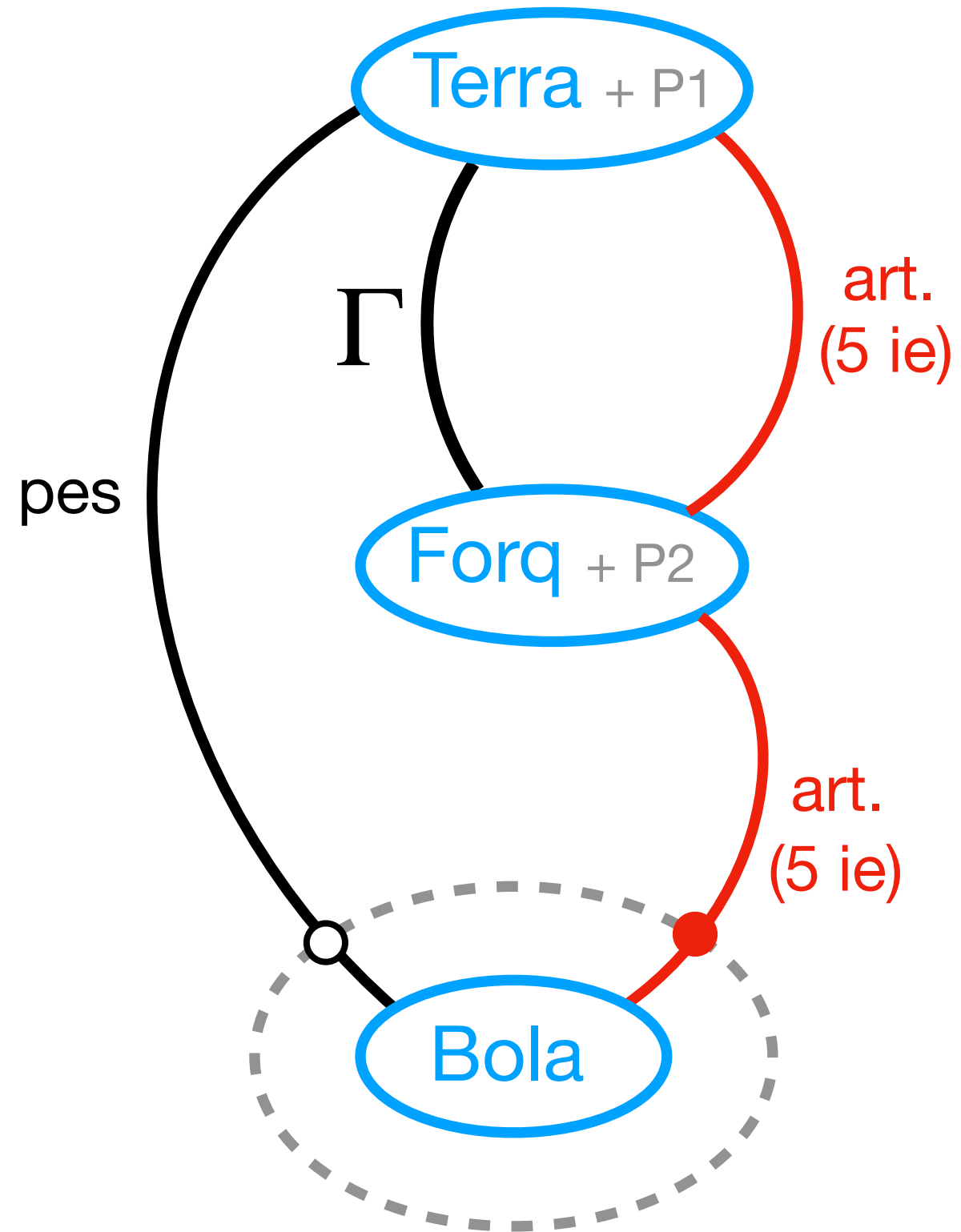
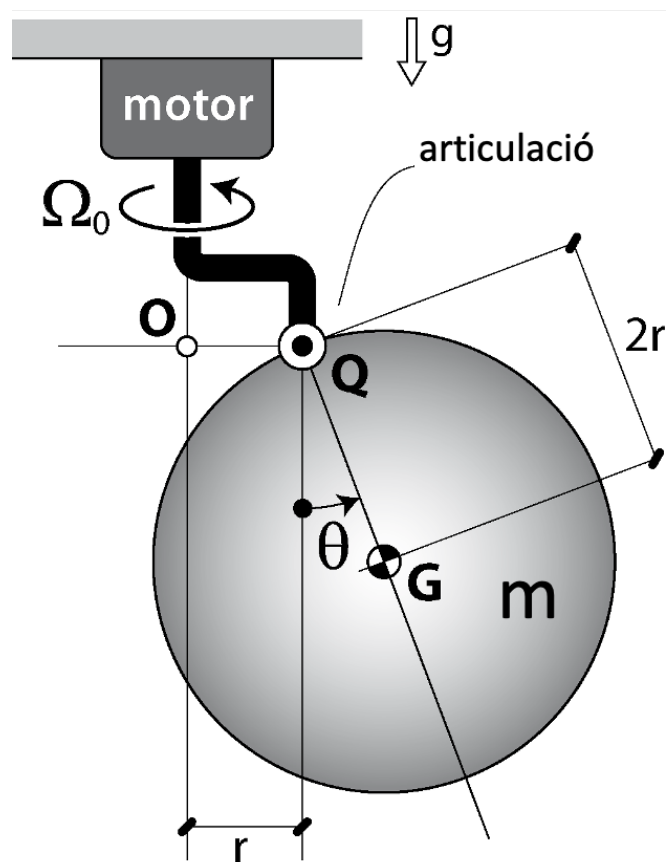
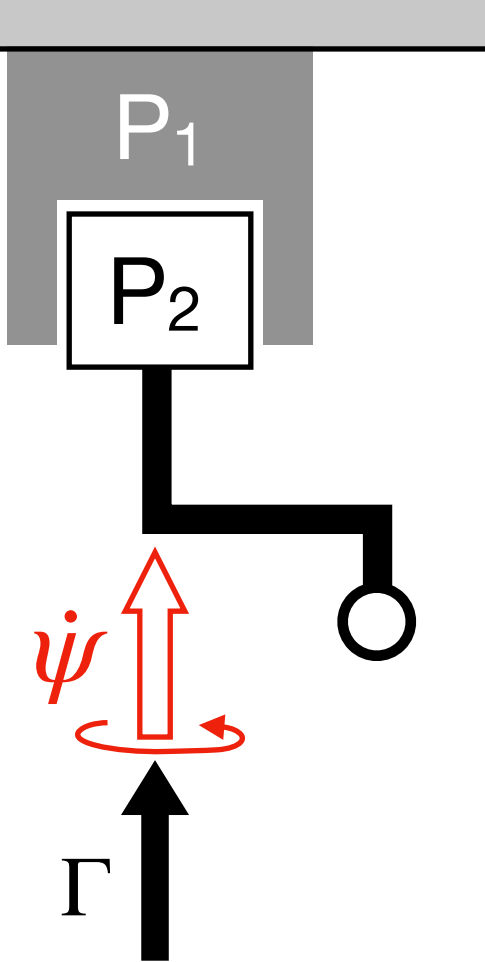


Problema dinàmic global

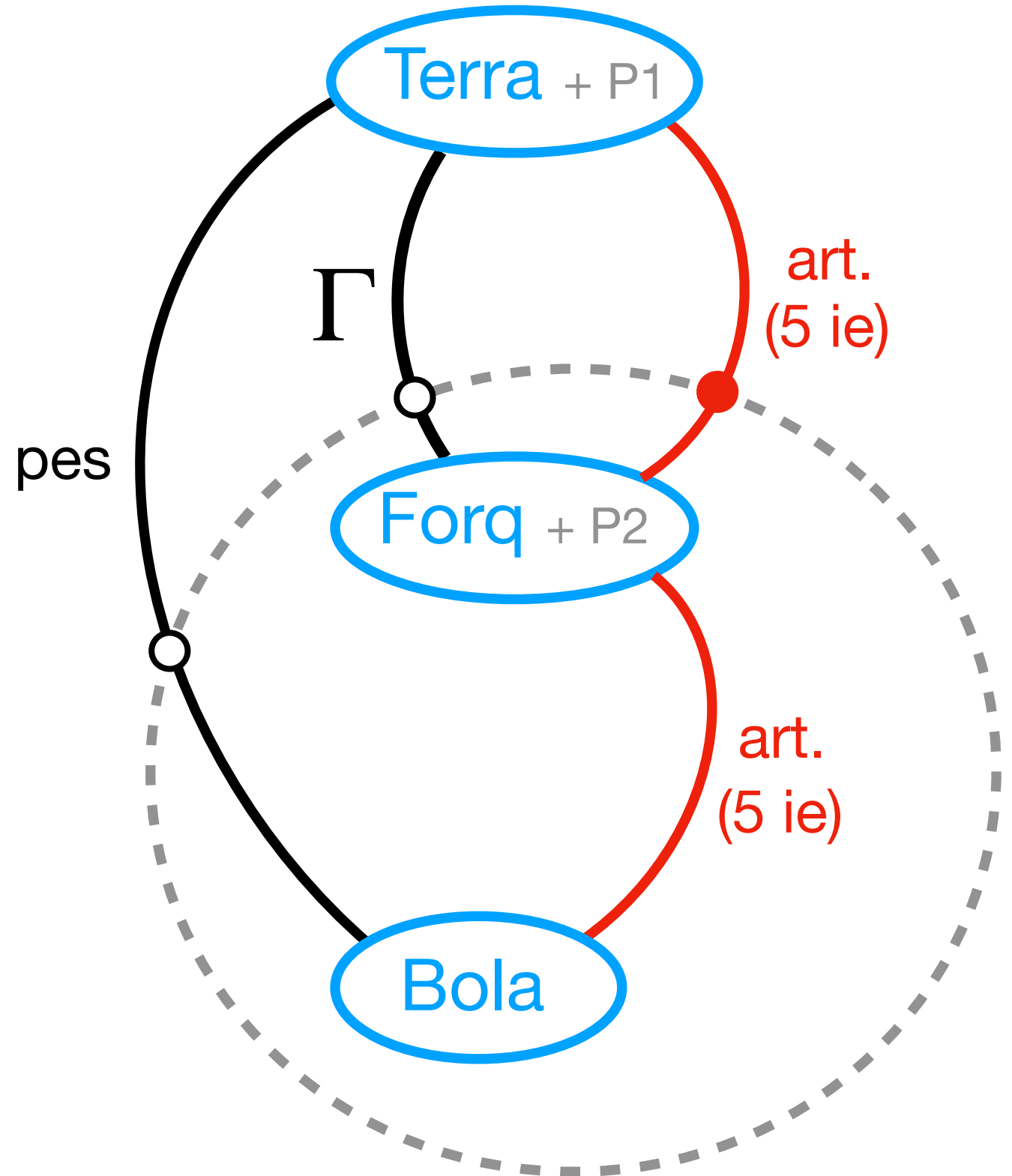
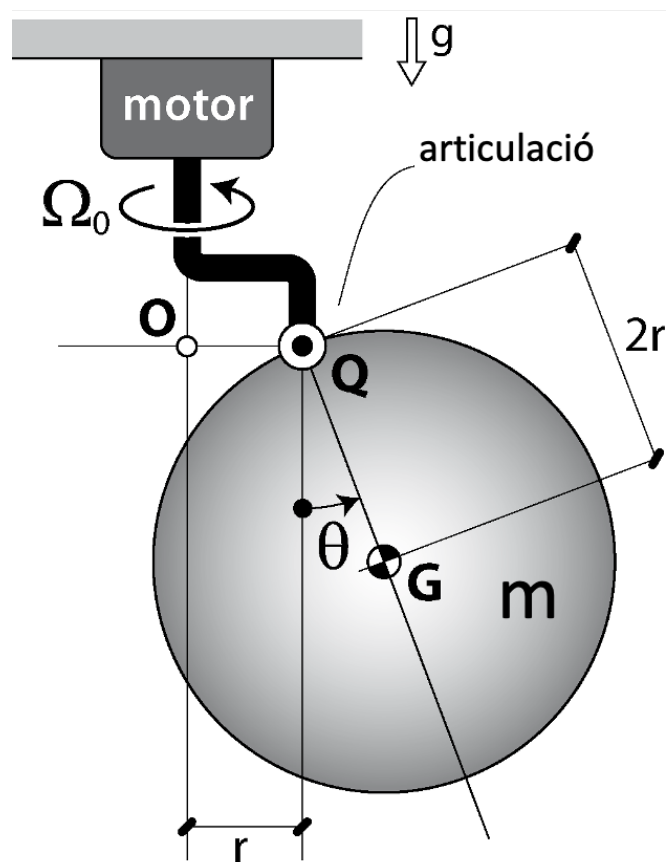
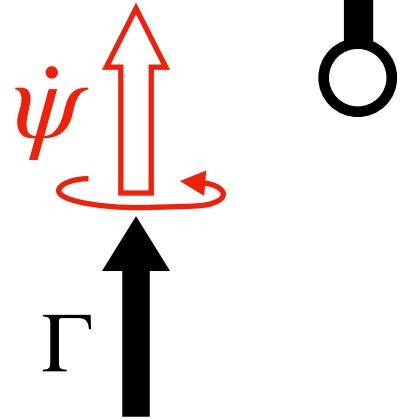
12 incògnites i 12 equacions



Sistema = Bola



Sistema = Bola + Forq



Sistema = Forq

