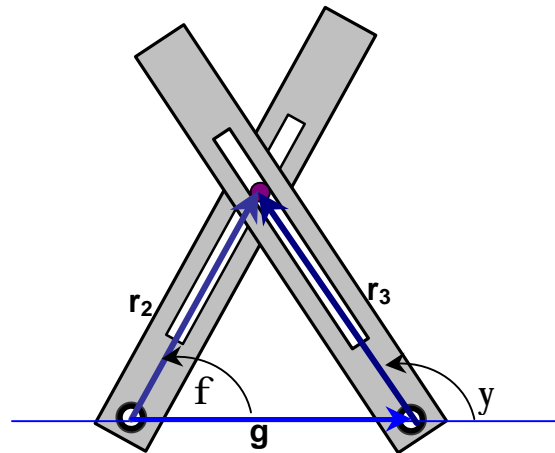


Kinematic Analysis



How many **degrees of freedom** does this device have?

How many **drivers** need to be used on this device?

How many parameters need to be specified to find **closed form solutions** for unknowns?

First select r_2 and r_3 as unknowns and derive closed form solutions for unknown positions, velocities, and accelerations. Then select ϕ and ψ as unknowns and solve for all positions, velocities and accelerations.