

Kinetics : Branch of mechanics
interested in the forces
causing movement

↔ Push
or
Pull
That tends
to cause
movement

Kinematics

Kinetics

PVA

Position

- Displacement
- Distance

Velocity

Acceleration

Linear
Angular

acceleration

$$\underbrace{\sum F_{on}}_{\text{kinetics}} = \underbrace{ma_{com}}_{\text{kinetics}}$$

↳ Linear

↳ Angular

$$\sum T_{on\ axis} = I \alpha$$