Rotational Dynamics

▶ Torque from tension will rotate disk

$$\vec{\tau} = I\vec{\alpha}$$

▶ Sign of angular velocity of disk depends on direction of disk rotation (not direction of falling mass)

ω>0   ω>0   ω<0   ω<0

$$\vec{\alpha} = \frac{d\vec{\omega}}{dt}$$

ω (rad/s)

t (s)