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)

\[ \omega > 0 \quad \omega > 0 \quad \omega < 0 \quad \omega < 0 \]

\[ \vec{\alpha} = \frac{d\vec{\omega}}{dt} \]