

$$\vec{OB} = \vec{OA} + \vec{AB}$$

$$= R \vec{u} - L \vec{y}$$

$$\vec{v}(B) = \frac{d\vec{OB}}{dt} = R \sin \alpha \vec{u}$$

$$= R \theta^0 \vec{v}$$

$$\vec{r}(B) = \frac{d^2 \vec{r}_B}{dt^2} = \frac{d \vec{v}(B)}{dt} = R \ddot{\theta} \vec{e}_1 - R \dot{\theta}^2 \vec{u}$$

