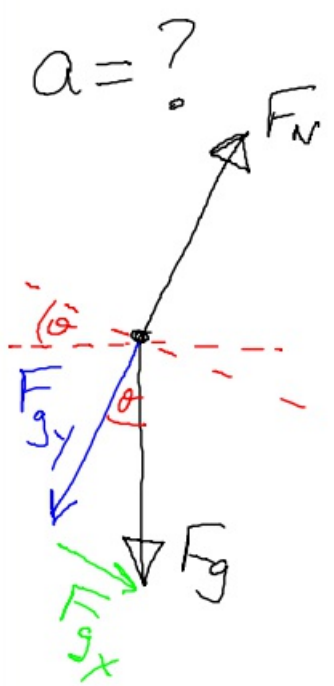


- Determine the acceleration of a 0.500 kg hovercraft if it is placed on a plank inclined at 10° . Assume there is no friction.



$a = ?$

$$a_x = \frac{\sum F_x}{m}$$

$$a_x = \frac{F_{gx}}{m}$$

$$a_x = \frac{mg \sin \theta}{m}$$

$$a_x = g \sin \theta$$

$$a_x = 9.8 \sin 10^\circ$$

$$a_x = 1.70 \text{ m/s}^2$$

$$\sin \theta = \frac{F_{gx}}{F_g}$$

$$F_g \sin \theta = F_{gx}$$

$$mg \sin \theta = F_{gx}$$