

Friction

Daniel Pinkston

[2024-10-18 Fri 13:27]

1 Definition

an object interacting with its environment

Static Friction

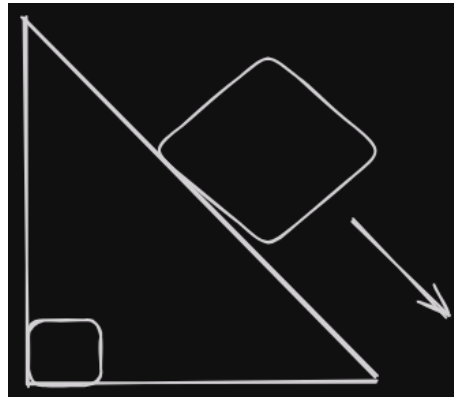
opposes the change in a motion state

$$F_{\text{static}} \leq \mu_s \times F_n$$

μ_s is the coefficient of static friction, unitless number

Kinetic Friction

opposes change motion in any direction



$$F_{\text{kinetic}} = \mu_k \times F_n$$

μ_k is the coefficient of kinetic friction, unitless number

Comparing the constants

typically kinetic constant less than static

