

# Examples of Newton's 2nd Law

$$F=ma$$

## Slide 2



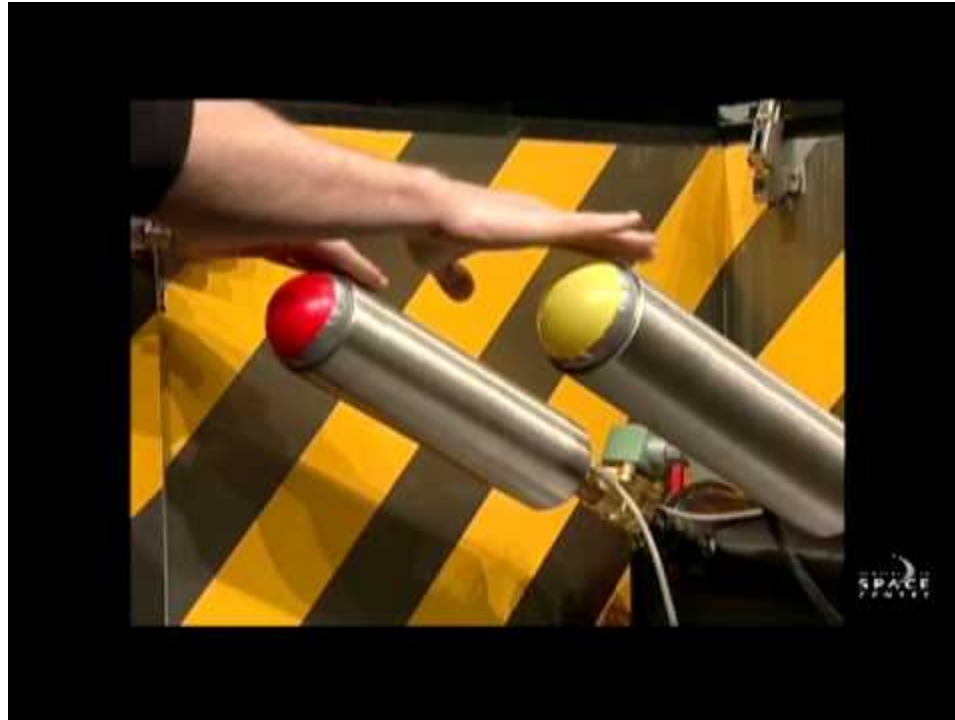
Slide 3 -Which cart is easier to move? Why?



## Slide 4



Slide 5- What does this have to do with rockets and cars?



# Slide 6

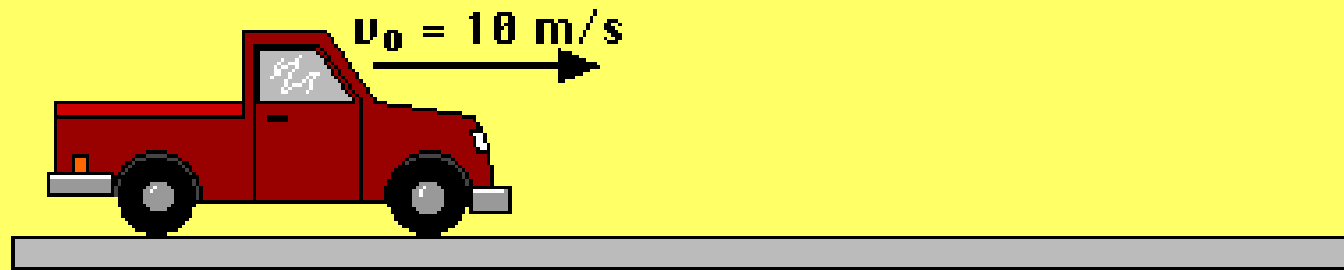


Slide 7- 2nd law at about the 2:50 minute mark



## Slide 8

### Braking Distance



If a truck initially moving at 10 m/s



## Slide 9

Suppose a heavy truck and a light car start with the same momentum (if it makes you happy, we can say the truck has a mass three times that of the car). Both vehicles have the same force acting on them to bring them to a stop. Which one stops first? Why?



Slide 10-Which vehicle stops in the shortest distance and why?

