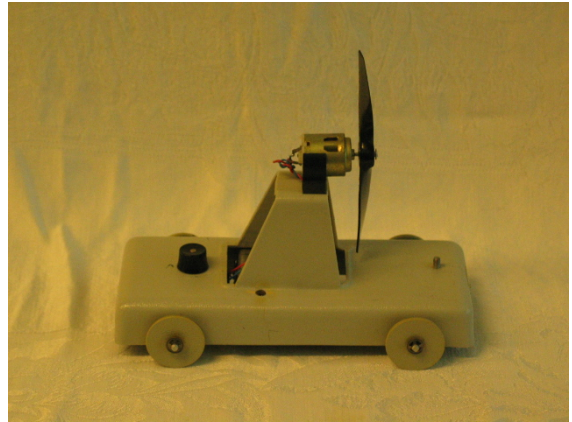
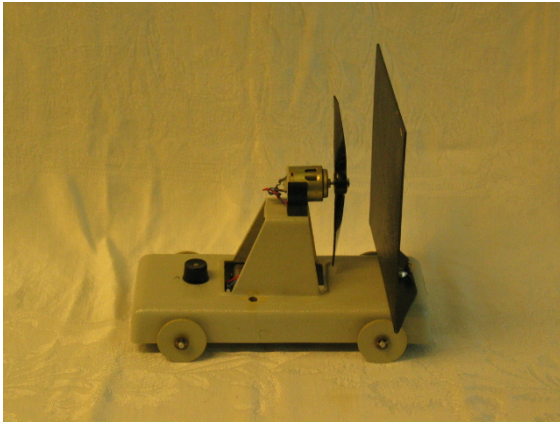


Fan and “Sail” Cart (3rd Law)



Purpose: To show that a fan cannot exert a net force on the air, causing air to accelerate in one direction, without the air exerting an equal but oppositely directed net force on the fan (and hence the cart), causing it to accelerate in the opposite direction.

Location: room 136, shelf M4

Remove the “sail” from the cart. Ask the students which way the cart will go when you turn on the fan, then do it.

(May also be used with the sail to illustrate that it is the net force that matters in the second law of motion.)