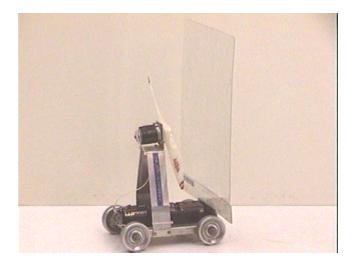
Question #46



The device in the photograph above is called a "fan cart" because of the electrical fan mounted on it. The fan blows air toward the right in the photograph, so with the sail removed and the fan ON the cart will move to the left (click here for video).

On the other hand, with the fan OFF and the sail mounted on the cart, you can blow into the sail from the left with your breath or a larger stationary fan and make the cart move to the right (click here for video). Notice that the propeller is not rotating and the wind from the fan at the left causes the sail to bend to the right.

When the fan is turned ON with the sail mounted on the cart, if you hold the cart you can again notice the sail bending due to the air from the cart fan blowing into the sail (click here for video).

Suppose that the sail is mounted in place as shown in the photograph, the fan turned ON, and the cart released to move if it wants to. What will the cart do?

- (a) It will move to the left.
- (b) It will move to the right.
- (c) It will remain motionless.

Click here for Answer #46 after January 8, 2001.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact <u>Dr. Richard E. Berg</u> by e-mail or using phone number or regular mail address given on the <u>Lecture-Demonstration Home Page</u>.