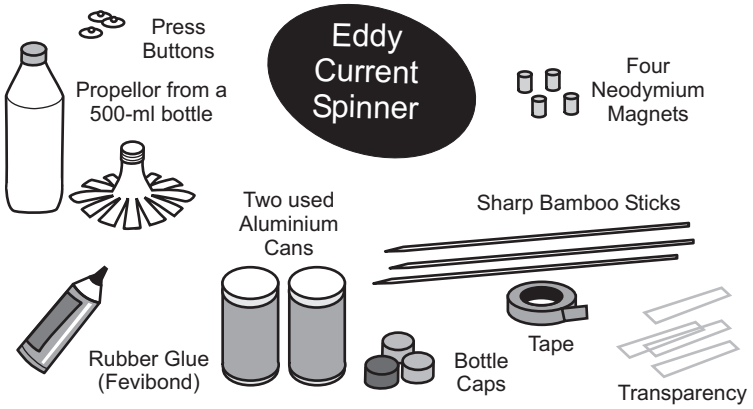
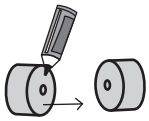
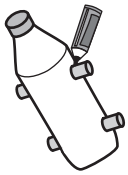
Eddy Current Spinner



1. Make holes in two bottle caps and stick them back-to-back.

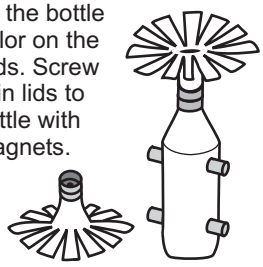


2. Stick four Neodymium magnets on a 500-ml plastic bottle as shown.

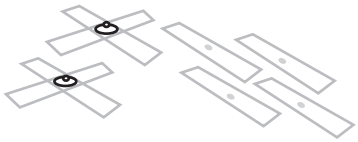


3. Fix half the press button - only the pip part in the lid hole.

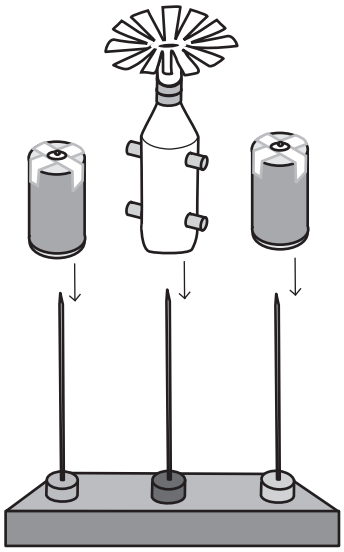
4. Screw the bottle propellor on the twin-lids. Screw the twin lids to the bottle with the magnets.



5. Cut four 1-cm x 6-cm transparency strips. Stick them into two crosses. Make holes and stick half a press button in there centers. The pip must be on the top.

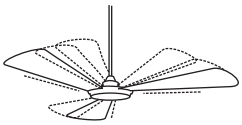


6. Cut the tops of two aluminium cans. Tape the crosses on top of the cans. Make a large hole in the center in the base of each can.



7 Fix three sharp bamboo sticks (skewers) on three bottle caps. Stick the caps on a wooden block. Perch the bottle with the magnets on the middle stick and the aluminium cans on the two end sticks. The tip of the sticks must perch on the press buttons. Then place the model under a ceiling fan.

Spinning magnets produce Eddy currents in the aluminum cans. These current produces a magnetic force which interacts with the strong neodymium magnets making the aluminum cans spin.



8 The breeze from the ceiling fan will spin the propeller and the bottle. The strong neodymium magnets will also spin. These spinning magnets will create eddy currents in the aluminium cans and they will start spinning too!