Boy, I really nailed that one. That Ping Pong® ball is out of here!

I wonder what would happen if I add a motor to this paddle.

I challenge you to DESIGN and BUILD a motorized kick stick that can hit a Ping Pong ball across the room at high speed. Let's do it!

**DESIGN AND BUILD**

**THE CIRCUIT**

**BRAINSTORM**

There are lots of ways to go. Grab some paper. How many ideas can you come up with?

Where does the battery go?

Hint: It doesn't need to be near the switch or motor.

**ADD A SWITCH**

Open the switch to stop the motor.

Close the switch to run the motor.

"Ping Pong" is a registered trademark of Parker Brothers, Inc.

Where will the motor go? In the middle of the stick? At the end pointing out? At the end pointing down?

Electric motor & washer

Attach the motor, washer, and blades. Put the washer on the motor gear. Tape your blades to the washer.

Test and redesign

On target! How can you make your kicker kick more accurately?

Invent a game. Then test it out.

Improvements? How can you make the switch and blades work better?

What kinds of stick-and-ball games could you play with your kick stick? What other kinds of games could you invent?

PBS. Watch DESIGN SQUAD on PBS or online at pbs.org/designsquad.