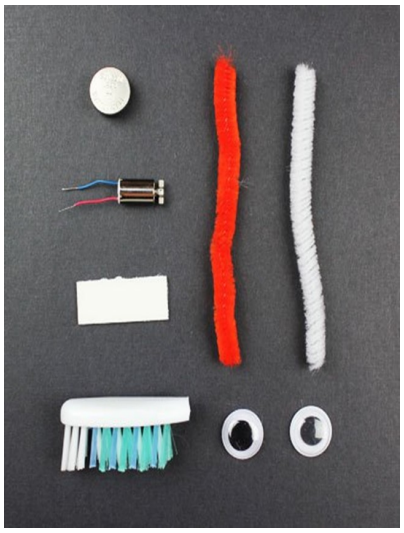
BRISTLEBOTS

MATERIALS

- Vibrating motor - 6mm
- Button Cell Battery
- Toothbrush Head
- 2 Googly Eyes
- 2 Pipe Cleaners
- Double Sided Tape



WHAT IS A BRISTLEBOT?

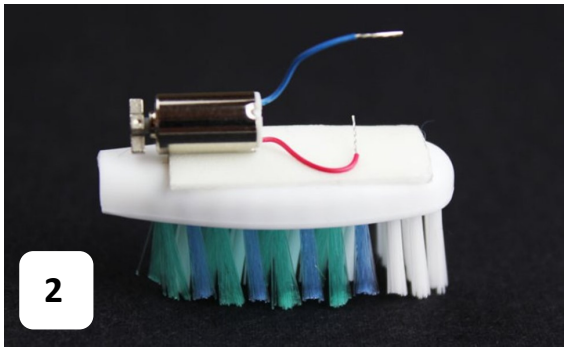
A bristlebot is a simple to assemble robot that moves through the transfer of kinetic energy. The cell battery powers the electric motor which creates rapid vibrations which causes

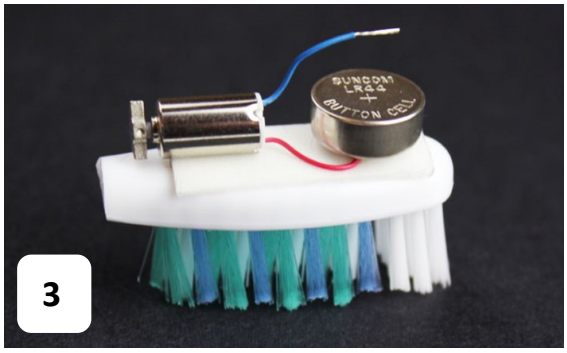
Both LED circuits and bristlebots are a system. A System is a group of related part that make up a whole and can carry out functions its individual parts cannot

HOW TO MAKE A BRISTLEBOT

1. Trim the double sided tape to fit on the toothbrush head. Attach the tape to the toothbrush head.
2. Mount the motor to the tope side of the double sided tape. Gently stick the red wire to the double sided tape and keep the blue wire bent into the air.
3. Mount the button cell battery to the double sided tape with the negative (-) side facing down. Make sure it contacts with the motor wire that is stuck to the double sided tape.

Continue to the next page...

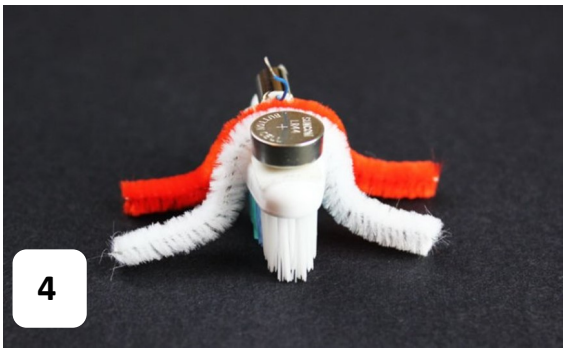


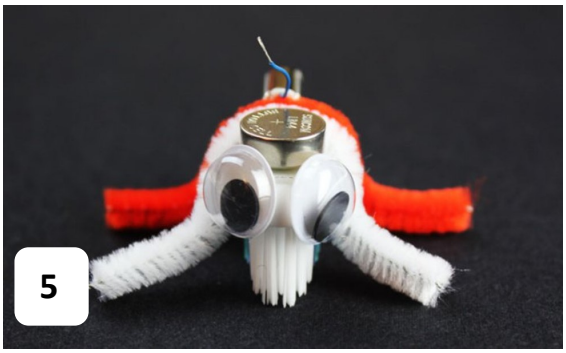


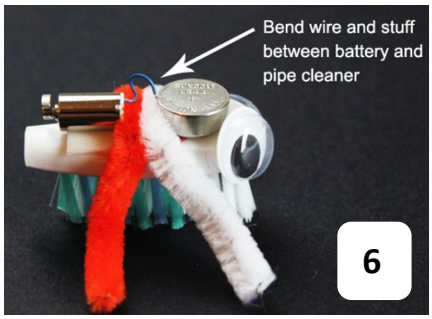
4. Cut two equal sized pieces of pipe cleaner about 1.5-2 inches in length and attach them to the double sided tape and bend them to create legs and feet. The legs and feet will work to stabilize the bristle bot.

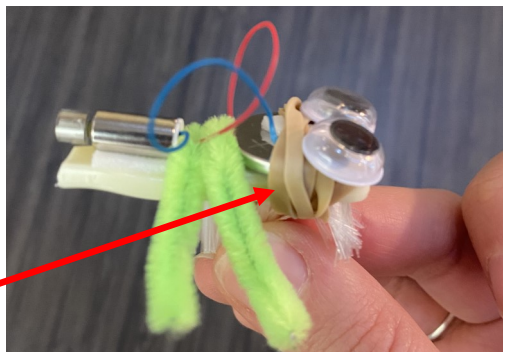
5. Peel the backing off the googly eyes and stick them to the front of the toothbrush head.

6. To turn the bristle bot on, bend the blue motor wire and secure it between the button battery and the pipe cleaner. The bot should turn on and start moving around.









If the bristlebot does not turn on more pressure is needed in the connection between the battery and the wires. Try wrapping a rubber band around the battery to more firmly secure it in place.

Directions adapted from MakerSpaces.com

PAINTING WITH BRISTLEBOTS

1. Find a box or container that will confine the bristlebot and place a piece of provided cardstock in it.
2. Apply the provided paint to the bristlebot's brush and place it on the paper.

Thank you to the Madison Community Foundation for making this STEM bag possible!

Madison COMMUNITY FOUNDATION

TO ACCESS A BRISTLEBOT ACTIVITY WORKBOOK VISIT:

SUN PRAIRIE PUBLIC LIBRARY