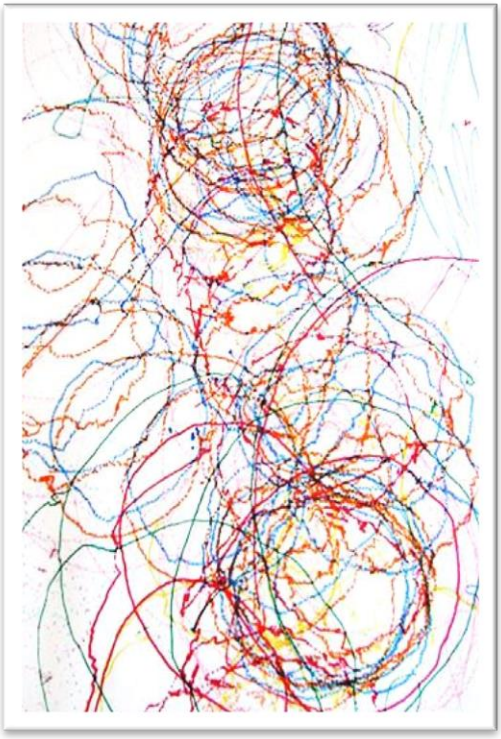
SCRIBBLE BOTS

Create a motorized contraption that moves in colorful and unusual ways.



MATERIALS NEEDED:

AA battery
1.5 – 3V hobby motor
Light insulated electrical wire or alligator test lead
Wire strippers
Glue stick – cut to a length of about 1-2 inches
Masking Tape
Felt-tip Markers
Cup or similar recycled container
Paper

WHAT TO DO:

- Cut two pieces of wire about 6 inches in length or cut an alligator test lead in half.
- Use the wire strippers to expose the wire.
- Push the side of a 1 to 2 inch piece of glue stick onto the motor shaft so that one end of the glue stick is longer than the other. It should look like an off-balance propeller.
- Attach one end of each wire to the metal tabs on the motor.
- Tape the motor on to the top of cup or container, so that the glue stick hangs over the edge and spins freely.
- Tape the battery to the cup behind the motor.
- Give your bot "legs" by attaching markers to the sides of the container with tape.
- To complete the electrical circuit, tape the other end of the wires to the battery, one to the positive and the other to the negative terminal of the battery.
- Remove the caps from the markers and place the bot on to a piece of paper.

OPEN EXPLORATIONS:

Now that you have the foundation of a Scribble Bot, modify different variables one at a time to explore how they affect the path across the paper. Things to try:

- ***The length or position of the glue stick on the shaft***
- ***Switching the wires on the motor***
- ***Length or number of legs***
- ***Different heights or widths of containers***

Also explore different ways to make your bot function better. Design a switch to turn the motor on and off without disconnecting the wires.

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