

BUILD A DRAWING ROBOT

This contraption doodles as it wiggles! See what you can make your own robot draw!

WHAT YOU'LL NEED:

- AA batteru
- Thick rubber band
- Masking tape
- Hot glue stick
- Washable markers
- Paper
- Recycled container, like a yogurt container
- 1.5 volt hobby motor (can be found at your local hobby store or online)
- Other helpful materials: a weighted item like a washer, art supplies, hot glue gun, googly eyes, craft sticks



- 1. Start by testing your motor and making it run. Take the AA battery and wrap the rubber band around it lengthwise. Then, take the wires from the motor and connect them to the battery by slipping them under the rubber band. One wire should connect to the positive side of the battery, the other to the negative. This should make the motor begin to spin!
- 2. To turn the motor off, simply disconnect one of the wires by pulling it out from the rubber band.
- 3. Start building! Tape the motor and battery to the top of the container near the edge. You will notice that there is a small rotating part sticking out from the motor. Take the hot glue stick and press it onto this part, trim if necessary with scissors.
- 4. Attach markers to the sides of the container with tape.
- 5. Remove the lids to the markers and set the robot down on a piece of blank paper. Connect the battery to the motor and watch what happens!
- 6. Keep experimenting with your drawing robot. What happens when you move the motor around on the top of the container? How does adding weight affect the movement of the robot? What happens when you attach a longer glue stick to the motor?



