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HOW TO BUILD AN ART BOT

2012 Chicago Public Library "Best of the Best" Book! Build real robotics projects inspired by actual research using household materials and recycled toys and devices!

This fun and educational introduction to the exciting field of robotics--the science of designing, building, and operating robots--gives kids the basic tools for creating their own robots using ordinary craft materials and parts salvaged from recycled toys and other household devices.

Budding roboticists will learn how to create working models of robotic hands and arms, write "pencil and paper" computer programs, and design circuits that light up or make noise when sensors are activated. They'll also find out how other fields like chemistry, biology, and psychology are contributing to new breakthroughs, and see how artists, musicians and fashion designers are using robotics technology in their own work.





Tools/Materials

- Paper or plastic cup

- Foam tape
- Low-voltage DC motor (4 inches of wire on contacts)
- 2 AAA batteries
- Wide rubber band
- Electrical tape
- Hot-glue gun
- 3 or more thin washable markers



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How to Build an Art Bot

1. Turn the cup upside down and layer foam tape on the bottom (which is now the top).

2. Stick the motor onto the tape.

3. Tape the batteries end to end, positive to negative, and stick them next to the motor.

4. Wrap a rubber band around the batteries so it covers the terminals - vou'll tuck the ends of the motor's wires under the rubber band later. Make sure everything is secure.

5. Push a cork onto the rotating shaft of the motor. Off-centre weight makes the bot shake, so hot-glue some craft supplies (beads, tongue depressor) onto the cork.

6. For the bot's legs, tape at least three markers around the rim of the cup, points down.

7. Add googly eyes, pipe cleaners, bells - whatever pleases your small person.

8. Place your robot on its canvas, put the wire ends under the rubber band, and watch a masterpiece unfold.

Adapted from "Robotics: Discover the Science and Technology of the Future" by Kathy Ceceri, published by Nomad Press



