

Build-Your-Own Robot Guide

Step-by-Step Instructions Using Household Materials

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Introduction

This guide will help you build simple robots using materials you can find at home. No expensive kits required!

Safety First

- * Ask an adult for help with scissors and glue
- * Work in a clean, well-lit area
- * Keep small parts away from younger siblings
- * Clean up when finished

Project 1: Cardboard Robot Arm

Materials:

- * Cardboard
- * Straws
- * String
- * Tape
- * Scissors

Steps:

1. Cut cardboard into 4 rectangles (fingers)
2. Fold each rectangle accordion-style
3. Thread string through straws
4. Attach straws to cardboard
5. Pull strings to make fingers move!

Project 2: Brush Bot

Materials:

- * Toothbrush head
- * Small motor (from old toy)
- * Battery
- * Tape

Steps:

1. Attach motor to toothbrush
2. Connect battery to motor
3. Turn on and watch it vibrate and move!

Project 3: Paper Cup Robot

Materials:

- * Paper cups
- * Markers
- * Pipe cleaners
- * Googly eyes
- * Glue

Steps:

1. Stack cups to make body
2. Add pipe cleaner arms and legs
3. Decorate with markers
4. Add googly eyes
5. Create a robot family!

Project 4: Balloon-Powered Car

Materials:

- * Cardboard
- * Bottle caps (wheels)
- * Straws
- * Balloon
- * Tape

Steps:

1. Cut cardboard base
2. Attach bottle cap wheels with straw axles
3. Tape balloon to straw
4. Blow up balloon and let it go!

Project 5: Robotic Hand

Materials:

- * Cardboard
- * Straws
- * String
- * Tape

Steps:

1. Trace your hand on cardboard
2. Cut out hand shape
3. Attach straws as fingers
4. Thread string through straws
5. Pull strings to make hand grip!

Tips for Success

- * Test your design before gluing permanently
- * Don't worry if it doesn't work the first time
- * Make improvements based on what you learn
- * Share your creations with friends
- * Keep experimenting with new ideas!

For more resources, visit www.dallaswthompson.com