



DIY Robot Hand STEAM Activity

What is a DIY Robot Hand?

The DIY Robot Hand is a simple and inventive engineering activity that will teach children all about the world of robotics! With just three common items—straws, paper, and string—students can create a moving, bendable hand. This activity encourages exploration of robotics, engineering, and creative thinking, making it an ideal STEAM activity for students.

How can teachers include this activity in the classroom as part of a lesson?

The DIY Robot Hand STEAM Activity encourages students to think about how the human body functions, robotic technology in the real world, and elements of design. It incorporates elements of STEM and art for a dynamic and entertaining learning opportunity.

Required Materials:

- Standard Drinking Straws (paper or plastic)
- Jumbo-Sized Straws (smoothie straws—paper or plastic)
- White Card Stock (Item #31141)
- Scissors
- Pencils
- Yarn or String (various colors)
- Tape

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1. Make the Robot Hand

Trace hand (adult hand recommended for larger size) onto card stock. Cut hand outline out with scissors. Place hand back onto paper hand to mark location of joints. Fold the paper hand at the marked joint locations.

2. Add the Straws

Cut the standard straws into $\frac{1}{4}$ ", $\frac{1}{2}$ ", 1", and $2\frac{1}{4}$ " sizes. Tape standard straws onto hand, and tape the jumbo straw onto the wrist.

3. Add the Yarn

Using a different yarn color for each finger, cut five strands of yarn into 2-foot-long pieces. Be sure to knot one end of each piece of yarn. Thread one yarn strand through each finger. Use a different yarn color for each finger. Have all colors meet at the wrist.

4. Play and Experiment!

Pull on the strings individually and in combination to explore the wonder of robotic hands!

