

DIY Robot Hand

Materials

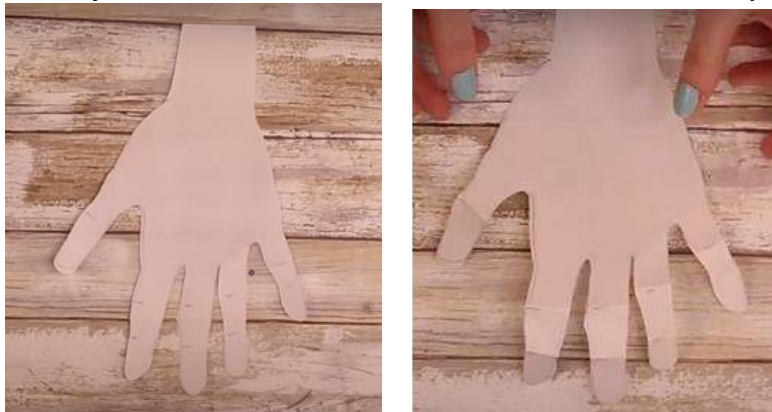
- › Standard drinking straws (paper or plastic)
- › Jumbo-size drinking straws (smoothie straws – paper or plastic)
- › Card
- › Scissors
- › Pencils
- › String (various colours if you can)
- › Tape

Activity Overview

Combine your engineering and creative thinking skills to create a robot hand. This simple and inventive activity will show you how to create a moving, bendable hand.

Activity Plan

Trace an adult's hand onto the white card, cut the outline with scissors and mark the joints of the finger. Where the joints have been marked, create folds so that your fingers 'bend'.



Cut the standard sized straws into ¼", ½", 1" and 2 ¼" sizes. Tape the standard straws onto the hand and tape the jumbo straw onto the wrist.



Using a different colour of string for each finger (if possible), cut five strands of string into two feet long pieces and put a knot in one end of each strand. Thread one strand of string through each finger – all the strands should meet at the wrist.



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



Learning Objective

- › Understand the interconnectedness of arts and technology
- › Think creatively about designing and building a robotic hand



Reflection Questions

- › Can you make other body parts, such as a foot?
- › Can you improve your design by adding springs or bits of foam?