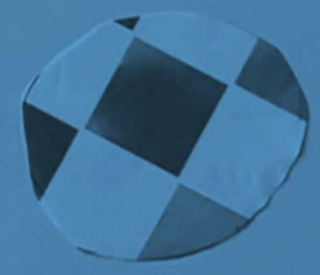




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Instructions

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Instructions**

Crafternoon Online – Robotic Hand

This activity uses materials you have at home to create a simple, articulated robotic hand. It is particularly good at helping us to understand the mechanics of our bones and soft tissue and the thinking that goes into the design and automation of machines.

Materials

- A hand!
- Pencil
- Scissors
- Cardboard or heavier stock paper – I used an old cereal box
- Straws
- Wool or string

Method

1. Using a pencil, trace your hand onto the cardboard
2. Carefully cut the hand out (include a small length for the wrist)
3. Look at your own hand and see where all the bendable parts are: the joints. Fold these joints on your cardboard hand so it looks like your real hand.
4. Cut the straws into small tubes so they will fit in these new finger and thumb sections. These are just like the bones in your hand, giving the cardboard firm structure.
5. Use sticky tape to stick the 14 pieces of straw down. This can take a little while, but it will look great when it's done.
6. Measure some string so it goes from the tip of each finger past the wrist and cut each length.
7. Thread the string through the row of straws and stick on the back of each finger. The string is like the tendons, ligaments and muscles that help to move our real fingers.
8. Thread all the lower pieces of string through one last section of straw and stick the straw in the middle of the palm.
9. Pull the ends of string near the wrist to make the fingers and thumb move.