

DIY ROBOTIC HAND

The following materials you will need to make this project:

- ◆ **Rubber Glove or (cardboard cutout of your hand)**
- ◆ **Straws (5)**
- ◆ **Transparent tape**
- ◆ **String (5 different colors for each finger)**
- ◆ **Scissors**

STEP 1: Put the glove on your hand. Mark the joints on the glove with a marker at each finger joint.

STEP 2: Take (5) straws that represent each finger, mark them in the size of each finger space ($1/4''$, $1/2''$, $1''$, $2\ 1/4''$), and then cut them out.

STEP 3: Stick all the cut straws in the finger spaces between the marked joints with tape. Use a different color for each finger or use a different color for each joint section, whichever way you prefer. Make sure not to block the tunnel through the straw with tape. Be sure to angle the palm sections (the $2\ 1/4''$ pieces) towards the middle of the wrist.

STEP 4: Cut pieces from string long enough for each finger length from the tip of the finger down past the wrist area. You will want to have enough extra to loop the string through the top joint space. Use 5 different colors to represent each finger's muscles, tendons, and ligaments.

STEP 5: At the bottom of the palm, cut and stick a small piece of straw ($3/4''$) and loop all the string pieces through this straw. This will form the Carpal Tunnel where all the strings will flow through.

STEP 6: You can check the working of the hand by pulling all the five threads together; it should make a fist. Try pulling different fingers one at a time.

CONGRATULATIONS!! YOU JUST MADE A ROBOTIC HAND!