



devon 

# HOW TO MAKE A ROBOTIC HAND

DID YOU EVER HEAR OF HAILEY DAWSON? AT EIGHT YEARS OLD, SHE BECAME THE ONLY PERSON TO THROW A FIRST PITCH AT ALL 30 MAJOR LEAGUE BASEBALL STADIUMS - WITH HER 3D PRINTED, ROBOTIC HAND! THIS MONTH'S ACTIVITY IS INSPIRED BY HER!

**MATERIALS:** CONSTRUCTION PAPER, STRAWS, TRANSPARENT TAPE, STRANDS OF STRING, SCISSORS, PEN/MARKER

## DIRECTIONS:



**STEP ONE:** OUTLINE THE FIGURE OF YOUR HAND ON CHART PAPER WITH A PEN.

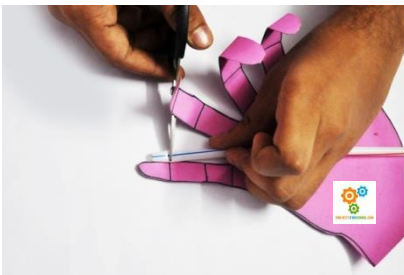
**STEP TWO:** CUT OUT THE FIGURE WITH SCISSORS



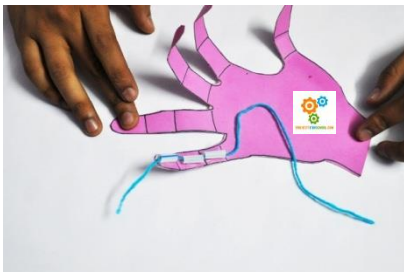
**STEP THREE:** MARK THE JOINTS WITH MARKER AS SHOWN IN THE PICTURE.



**STEP FOUR:** BEND THE FINGERS OF THE CUTOUT AT THE JOINT LINES.



**STEP FIVE:** TAKE STRAWS AND CUT THEM IN THE SIZE OF EACH FINGER SPACE.



**STEP SIX:** STICK ALL THE CUT STRAWS IN THE SPACES WITH TAPE. CUT PIECES OF THE STRING THE LENGTH OF THE HAND CUTOUT AND LOOP THEM THROUGH THE STRAWS IN EACH JOINT SPACE. STICK THE STRINGS TO THE CUTOUT AT THE FINGERTIP WITH TAPE.



**STEP SEVEN:** CUT STRAWS FOR PALM SPACE AND STICK THEM IN THE MIDDLE OF THE PALM. LOOP THE DIFFERENT PIECES OF STRING FOR THE FINGERS AND THUMB THROUGH THE LONGER PALM STRAWS.



**STEP EIGHT:** AT THE BOTTOM OF THE PALM, CUT AND STICK A SMALL PIECE OF STRAW AND LOOP ALL THE PIECES OF STRING THROUGH IT.

**STEP TEN:** YOU CAN CHECK THE WORKING OF THE HAND BY PULLING ALL FIVE STRINGS TOGETHER - IT SHOULD MAKE A FIST!

### **ACTIVITY TIPS:**

PIECES OF STRING SHOULD BE LOOSE SO THAT FINGERS CAN BE MOVED INTO A FIST.  
TYPE OF PAPER USED SHOULD BE OF GOOD STRENGTH TO HOLD UP.



BEFORE YOU FINISH YOUR ACTIVITY - HERE'S A PICTURE OF HAILEY WITH HER DODGERS-THEMED ROBOTIC ARM THAT WAS USED TO THROW OUT THE FIRST PITCH AT DODGERS STADIUM IN LOS ANGELES, CALIFORNIA ON JULY 30, 2018. THE DODGERS WERE THE 24TH STOP ON HER JOURNEY TO ALL 30 BALLPARKS.

PHOTO FROM HAILEY'S TWITTER ACCOUNT (@HAILEYS \_ HAND)