

KINETIC ARM

Extend your reach with a mechanical arm that can reach out and grab something!

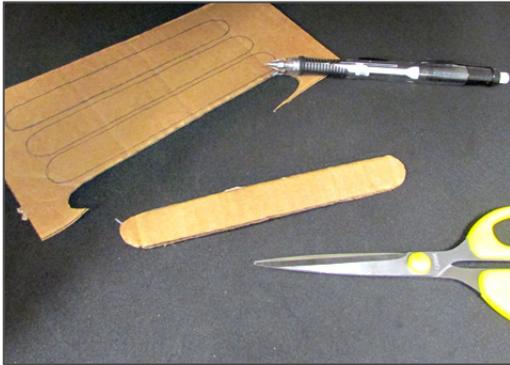
MATERIALS

Collect these materials:

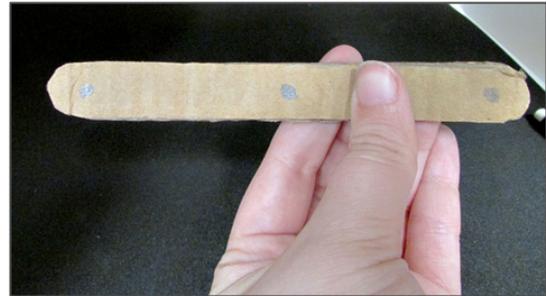
1. 4 jumbo (6" x 5/8") craft sticks,
OR some stiff cardboard to make your own
2. 6 bendable metal paper fasteners (aka brads)
3. some colored construction paper
4. scissors
5. a pen or pencil



RECIPE



1. If you making your own cardboard craft sticks, trace out 4 equal-sized shapes, about 6" long and about 5/8" wide, in the stiff cardboard. Then carefully cut out the shapes.



2. On each stick, draw a dot in the exact middle of the stick, and then two more dots along that center line, about 1/2" from each end.

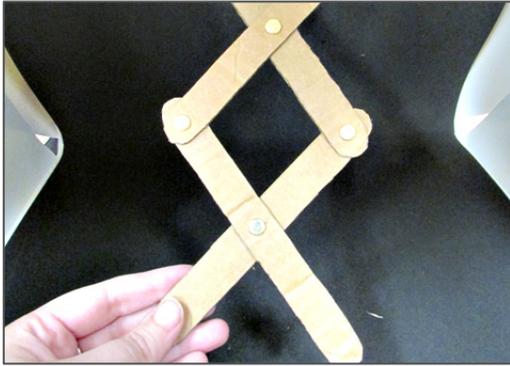


3. Use your pencil or scissors to (carefully!) poke a hole through all of the dots that you drew on the sticks. The hole only has to be big enough to fit the paper fastener through it.

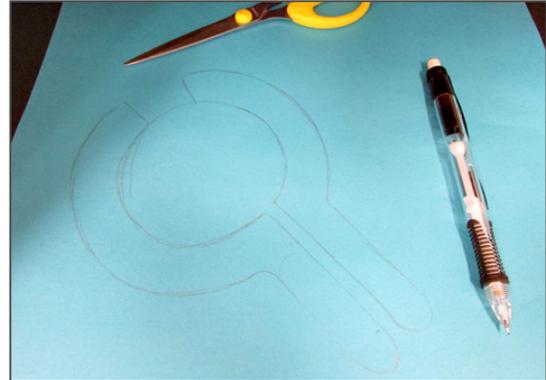


4. Take two sticks, lined up one on top of the other, and press a paper fastener through both of their middle holes. Bend the fasteners arms to secure it in place. Repeat for each pair of sticks.

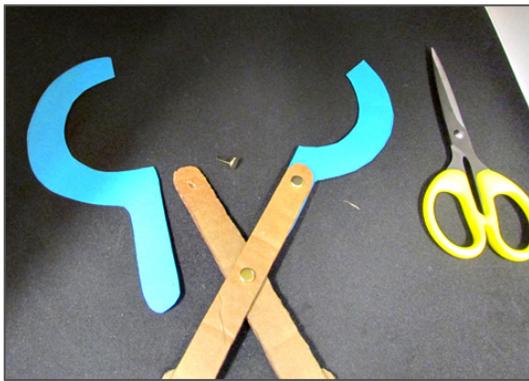
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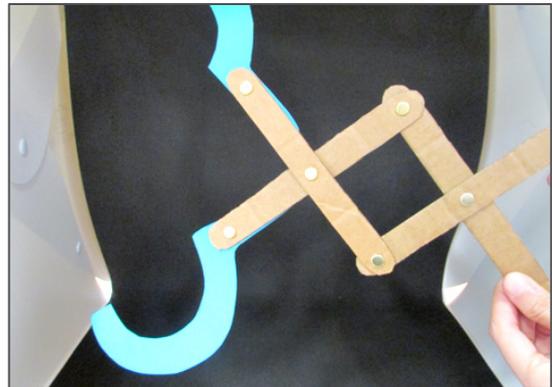
5. Connect the pairs of sticks by poking holes through the dots you drew at the ends of the sticks, then use paper fasteners to connect the pairs of sticks as shown. What happens when you open and close one end of the arm?



6. Make a gripper hand for your arm. You might use your craft sticks and some tin cans to trace out the wrist and gripper parts of the hand on the construction paper. Make two separate pieces as shown, to attach to two separate ends of the arm.



7. Cut out the two hand pieces, poke holes in the wrists, and then use paper fasteners to attach them to the ends of the arm.



8. Operate your gripper arm by opening and closing the end opposite the hand. Do you think you could pick something up with your hand? What might you have to change to make it a better gripper? How long do you think you could make it?

Did you make a kinetic arm? Share it with us, and see what others have made at WWW.FRANKENSTEIN200.ORG