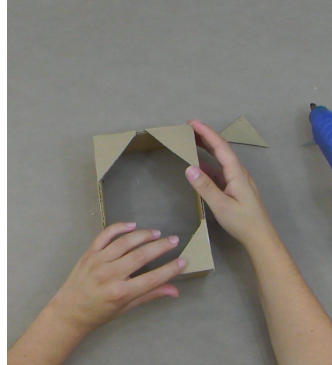
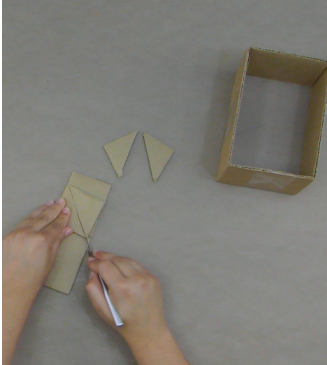


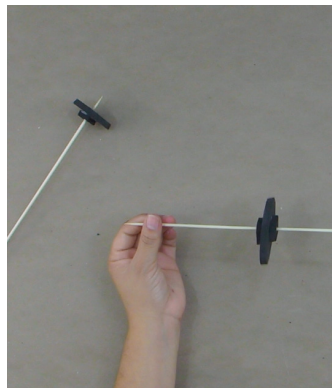
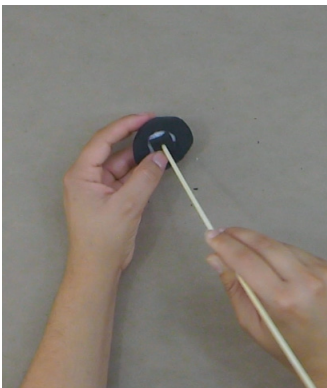


Cardboard Automata



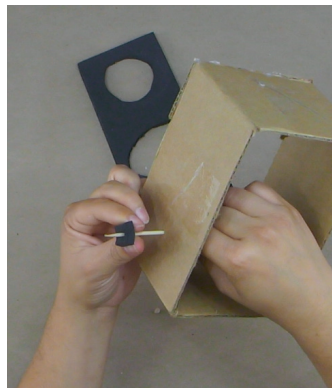
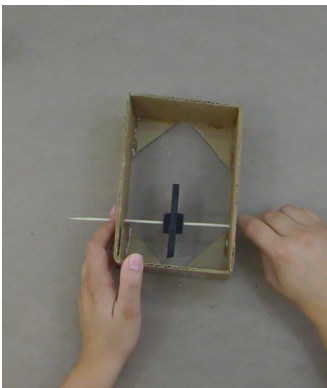
1. Create the frame.

Cut all the flaps off of a small cardboard box. » Cut a square out of one of the flaps. » Cut the square diagonally so that you get two triangles. » Cut a second square and make a second set of triangles. » Hot glue each of the triangles to a corner on the box to create a sturdy frame.



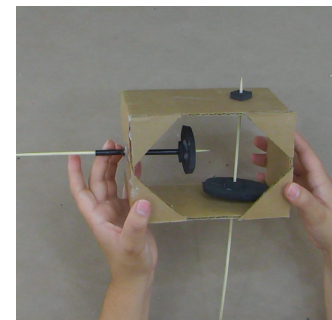
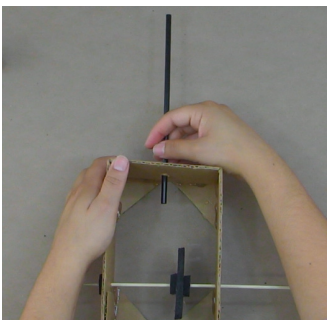
2. Make the cam and cam follower.

Cut an oval that's about 2.5 inches tall from foam or cardboard. This is your cam. » Cut a foam circle that's a bit smaller than the oval. This is your cam follower. » Cut a small square and glue it on the center of your cam. » Pierce through the center of your cam with a wooden skewer. » Repeat this process for the cam follower. » Reinforce joints of the cam follower with glue.



3. Install the cam.

Create two small holes on either side of your frame using a craft knife. » Thread the cam skewer through the holes so that the cam is inside the box. » Cut a small square of foam. » Pierce the small square through the skewer on the outside of the box. » Glue the square to the skewer.



4. Install cam follower guide.

Cut a hole in the center of the top of the frame using the craft knife so the straw can fit through. » Insert the straw through the hole and leave about 2 inches below the frame. » Thread the cam follower through the straw. » Cut the excess straw off. » Glue the straw in place.

Supplies

Small cardboard box

Thick foam or cardboard scraps

2 wooden skewers

1 straw

Scissors

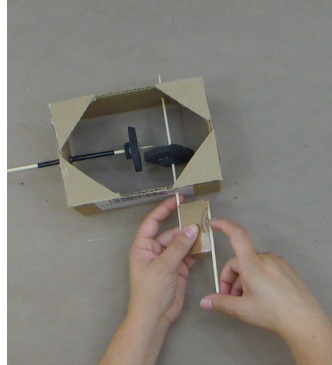
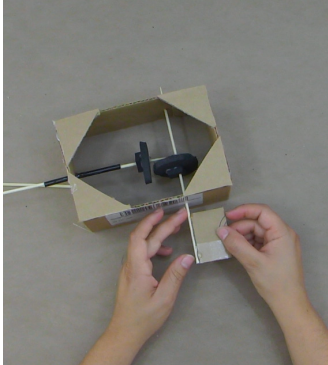
Craft knife

Hot glue gun

Decorations to create automata top

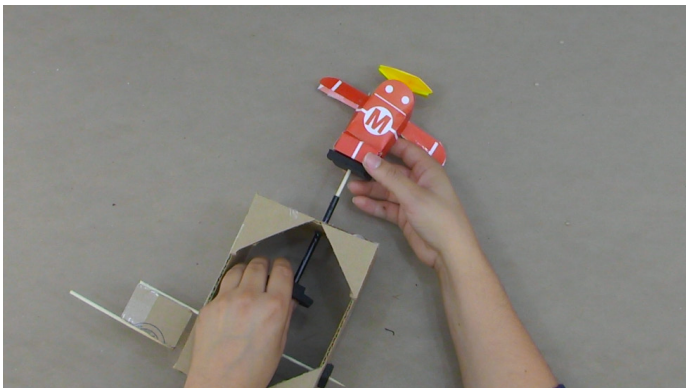


Cardboard Automata, continued



5. Add a handle.

Cut a cardboard rectangle that's about 1x2 inches. » Glue the edge of the rectangle on the outside of the frame to the skewer that's connected to the cam. » Cut off the remaining piece of skewer. » Glue the skewer you just cut off to the opposite side of the rectangle handle.



6. Create a character.

Create a character or object to animate using your automata. » If your object is flat, it can be glued directly to the frame, but if your object is 3D, then you can create a platform to glue onto the cam follower. » Experiment with different cam shapes. Does it change the motion of your cam follower?

