

SCRIBBLER

THE DRAWING ROBOT

Hello Maker!

I know you are probably anxious to start building your Scribbler. Please take time to become familiar with the parts. The best way is to spread them out on a table to identify them. Get ready to start making!

PARTS LIST:

- | | |
|---|-----------------------|
| a. Cardboard Pieces: Scribbler Box, 4 Penholders & Washer | b. Mini Toggle Switch |
| c. AA Battery Holder | d. Red Hookup Wire |
| e. Motor | f. Coloring Pens |

NOTES:

- Before assembling your Scribbler robot, you will need a hot glue gun and glue sticks.
- The glue gun and glue sticks are only supplied with the Scribbler Deluxe kit.
- Scribbler requires one AA battery to operate. Battery is not included.
- For the enthusiastic maker, this is a good project to practice your soldering skills. Soldering is not required but it is encouraged.

SCRIBBLER ASSEMBLY INSTRUCTIONS:

Start with your cardboard Scribbler box. Crease and gently fold each scored area. Heat up your glue gun and have your glue sticks ready to go.



Fold the cardboard body into a cube shape and begin gluing and sticking the tabs inside the cube. Align and square up each side of the cube so that it is even.



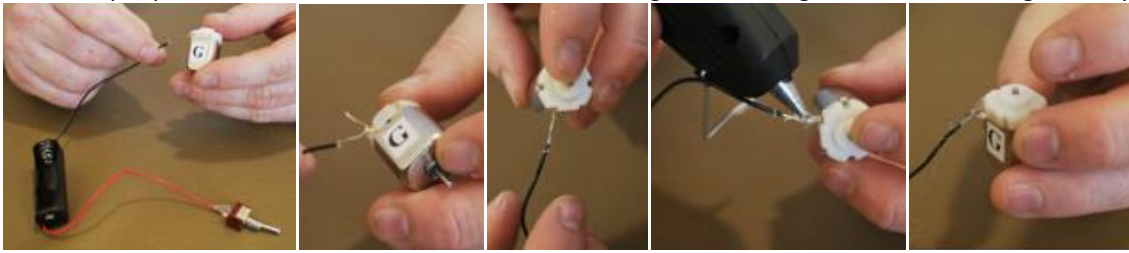
Lay out your circuit components. Take the red wire from the battery holder, make a hook shape and loop it through the center eyelet of the switch. Twist the wire around firmly in place. Pull tension on the connection and hot glue. Ensure that the wire is held tight in place until the glue dries to keep a good electrical connection.



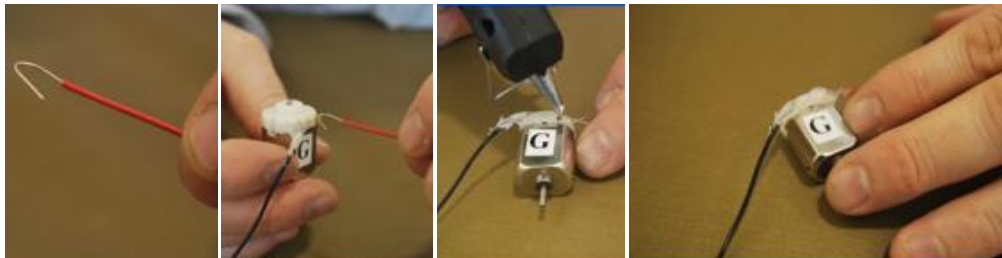
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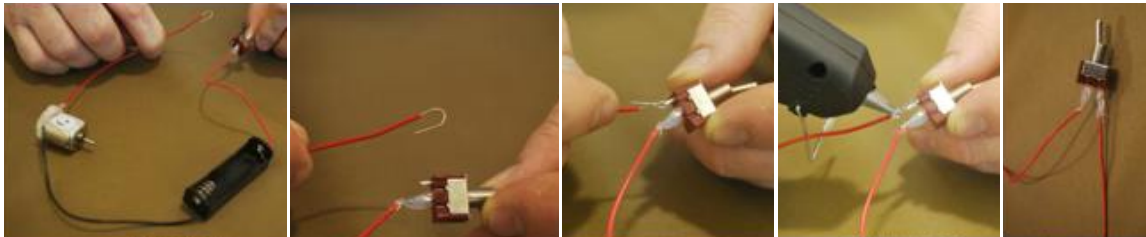
Take the black wire from the battery holder, make a hook shape and loop it through an eyelet on the motor. Twist the wire around itself until it is held firmly in place. Pull tension on the connection and hot glue. Hold a tight connection until glue is dry.



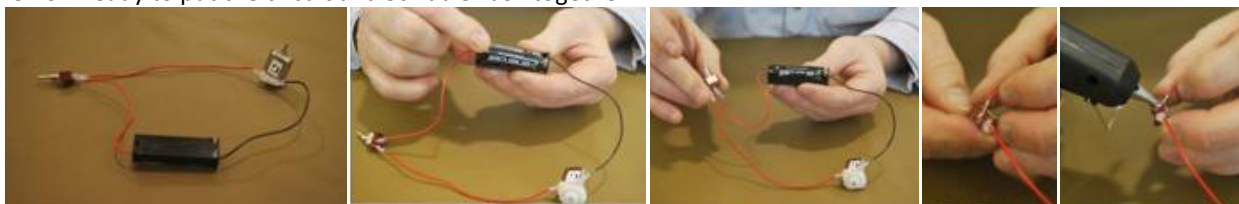
Take the loose red wire, make a hook shape and loop it through an eyelet on the motor. Gently twist the wire around itself and hold firmly in place. Gently pull tension on the connection and hot glue. Hold tight in place until glue is dry.



Take the other end of the loose red wire, make a hook shape and loop it through outside eyelet on the switch. Twist the wire around itself and hold firmly in place. Keep tension on the connection and hot glue. Hold tight in place until glue is dry.



Well done! Your circuit is complete. Place a battery in the battery holder to test the circuit. Turn on your switch and the motor shaft should spin. If it does not turn on. Pull tension on each connection to find the faulty one. Remove the glue from connection; tighten the twisted wire on the eyelet and re-glue ensuring there is a good electrical connection. Continue this process until the motor turns on. You are now ready to put the circuit and Scribbler box together.



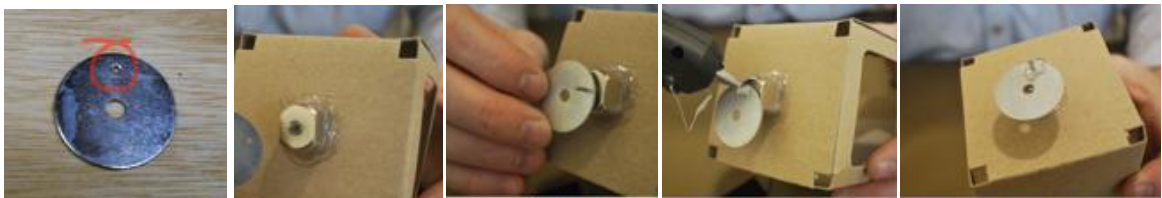
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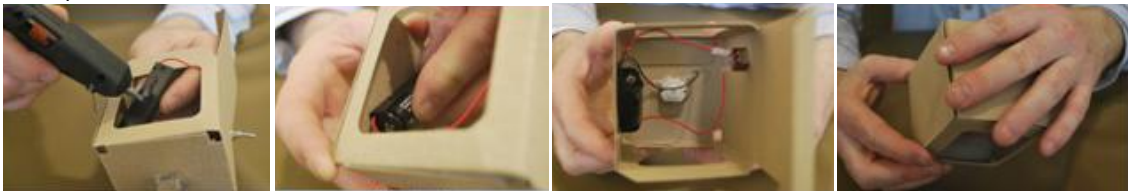
Place your circuit inside the Scribbler box. Push the shaft end of the motor through the hole at the bottom of the box. Center the motor and hold firmly in place while gluing. Glue motor to the outside and inside of the box. Do not get any glue on the motor shaft.



Place the motor shaft through the small offset hole in the washer. Glue in place making sure to only get glue on the outside surface of the washer.



Place glue on the back surface of the battery holder and place and hold firmly to the inside surface of the box until dry. Close and glue the lid of the box in place.



Take the rectangular piece of card and gently push and pop out the circular washer and four penholders. Pull and gently tear any edges away that may still be partially connected. Begin folding each scored area on the penholders. Take a coloring pen; wrap and mold the first holder around it. Place glue under the overlapping flap, taking care to not get any glue on the coloring pen. Press and hold in place until dry. Remove the penholder from the pen. Repeat this step until the sides of all four holders are glued in place.



Remove the holders from the coloring pens and place a small bit of glue on the inside of the small closing flap on the top of the holder. Press down in place and hold until dry. Take care to not touch the hot glue until dry. Repeat this step four times until all your holders have been constructed.



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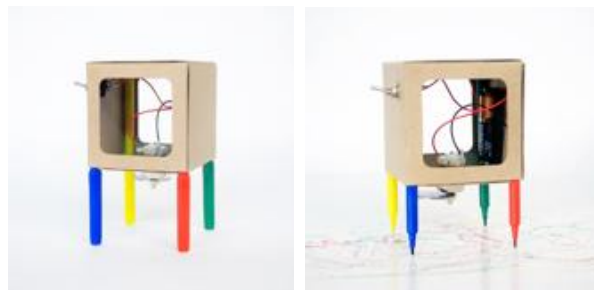
Remove the washers and nuts from the toggle switch and push the switch through the small hole in the side of the Scribbler box. Take your card washer and place it over the threaded switch shaft. Then replace the metal washers and nuts that you removed. Tighten firmly in place by hand, you can use a pliers to tighten firmly, if you have one available.



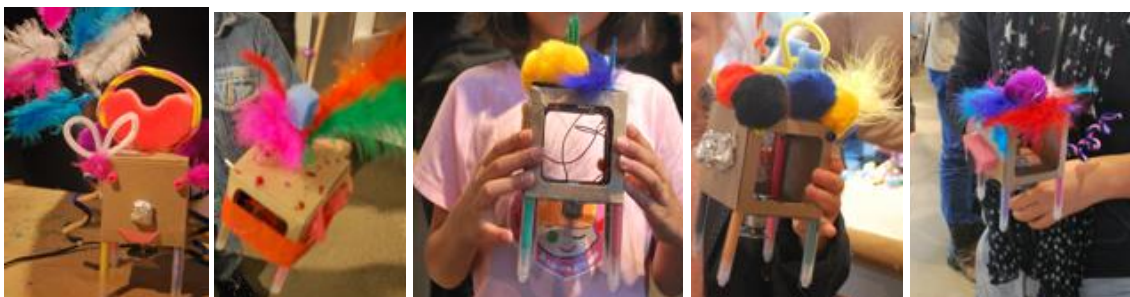
Insert the four coloring pens into each square hole at the bottom of the body with the capped ends out. Pull back each pen; place a penholder over the top. Place glue on one side of the penholder. Push the pen and penholder into the top corner. Secure and hold in place until dry. Continue until all four penholders are in place.



Stand the Scribbler on its new legs. Place a piece of paper down and remove the pen caps. Turn your Scribbler on and watch it go!



Great ideas for fun Scribbler creations!



Send photos of your very own Scribbler creations to info@makerstoolbox.com to be featured online!