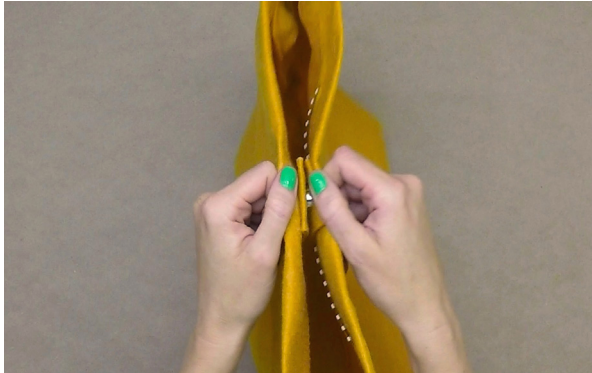




# Light-Up Tote Bag

... also known as Fridge Bag!



## Supplies:

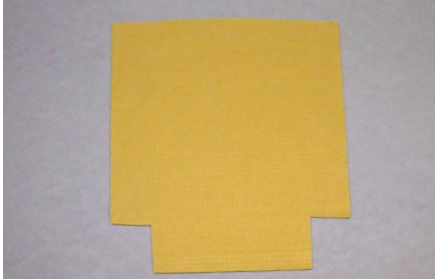
- needle
- thread
- scissors
- ruler
- marker
- hot glue gun / glue sticks
- 1/2 yard of heavy weight fabric
- 3/4" magnetic purse snap
- 8" LED light strip
- 9V battery and snap
- insulated hookup wire
- soldering iron
- solder
- wire strippers
- electric tape
- normally closed reed switch



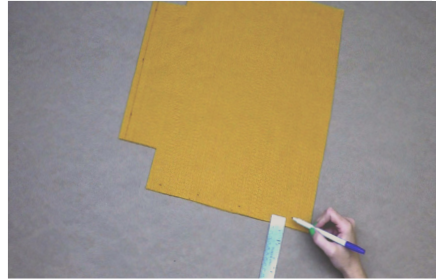


# Light-Up Tote Bag

## Part One: How to Sew the Bag



**1.** Start with two 18" x 18" square pieces of fabric. Lay the pieces on top of each other and cut a 3" x 3" square from the bottom corners of each piece.



**2.** Now measure a 1/2" border around the bottom, left, and right edges of your stack of fabric.



**3.** Sew the bottom, left, and right edges together.



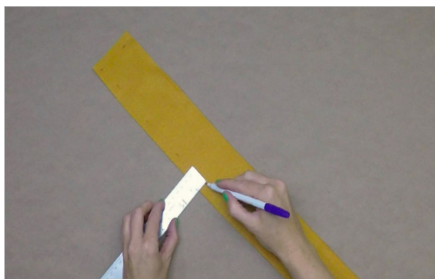
**4.** Pinch and pull the inner corners of the square that you cut out until the two seams that you made in step 3 line up.



**5.** Press the edge down so that it lays flat and measure out a 1/2" seam allowance.



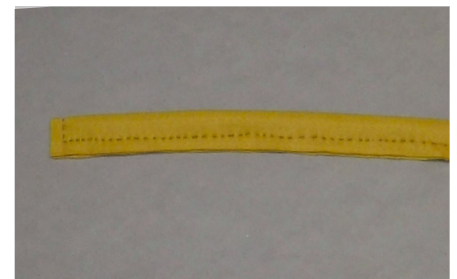
**6.** Sew the two edges together so that the seams stay aligned in the center. Repeat steps 4-6 on the other corner of the bag.



**7.** Cut a piece of 18" x 3" fabric. Draw a 1/2" border on one of the longer sides and on both of the two shorter sides.



**8.** Fold the fabric in half hotdog style. Sew along the three border lines that you drew in step 7.



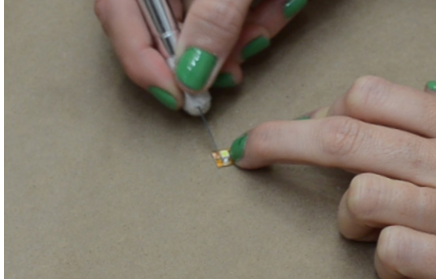
**9.** Repeat steps 7-8 so that you have two straps for your bag.



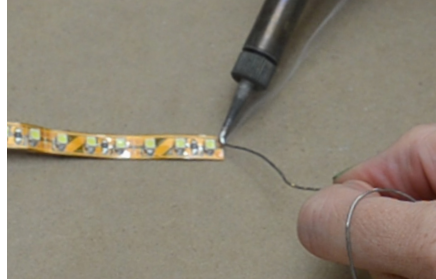


# Light-Up Tote Bag

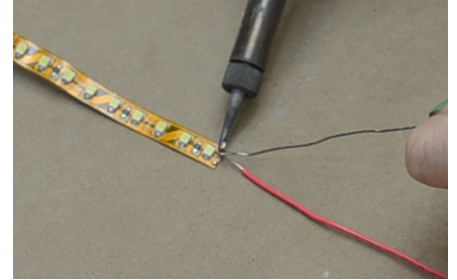
## Part Two: How to Build the Circuit



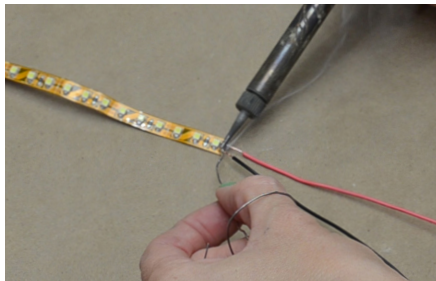
**10.** Prepare the LED strip by lightly scraping the positive and ground connections with a craft knife.



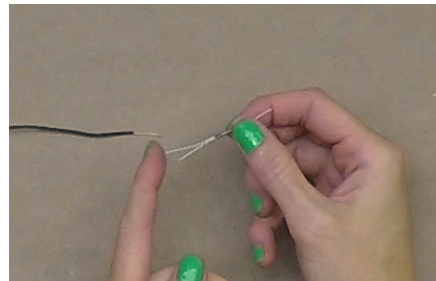
**11.** Tin the LED strip by melting a small amount of solder onto each connection.



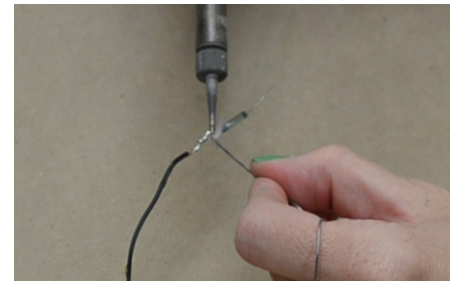
**12.** Solder a 7" piece of hookup wire to the positive connection on the LED strip.



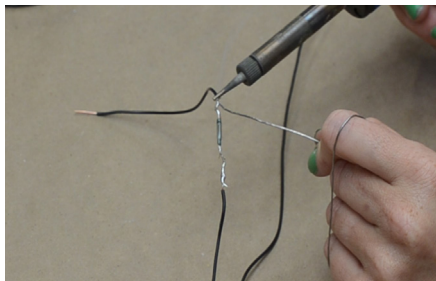
**13.** Now solder an 18" piece of hookup wire to the ground connection.



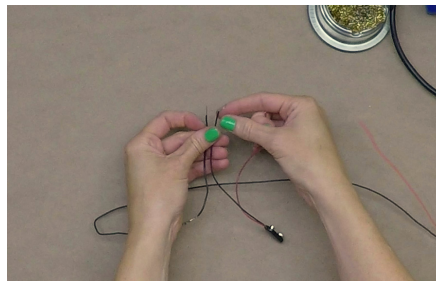
**14.** Test your reed switch to find out which pin is "normally closed". When attached to a battery and an LED, the LED should be off when a magnet is near the switch.



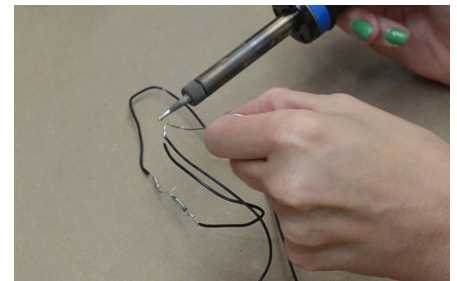
**15.** Solder the other end of the 18" hookup wire to the normally closed pin on the reed switch.



**16.** Solder a 5" piece of hookup wire to the other end of the reed switch.



**17.** Find the ground wire on your battery clip. It should be black.



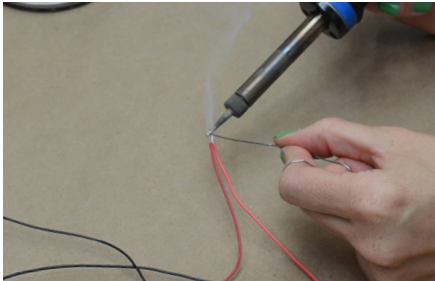
**18.** Solder the ground wire of the battery clip to the 5" hookup wire that is attached to the reed switch.



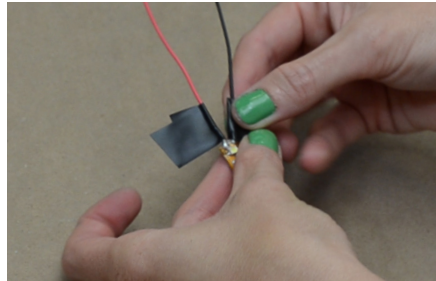


# Light-Up Tote Bag

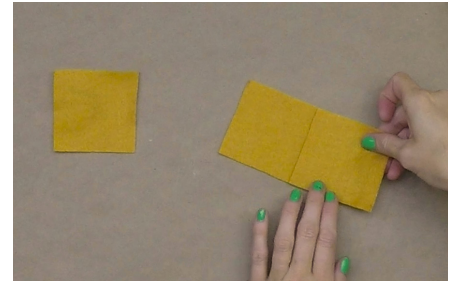
## Part Two: How to Build the Circuit, continued



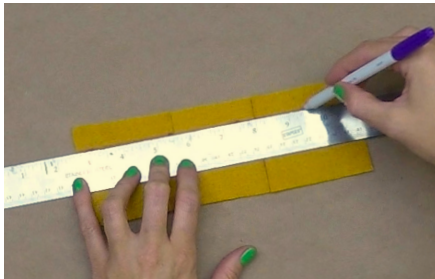
**19.** Complete the circuit by soldering the positive wire on the battery clip to the other end of the wire that you soldered to the positive connection on the LED strip.



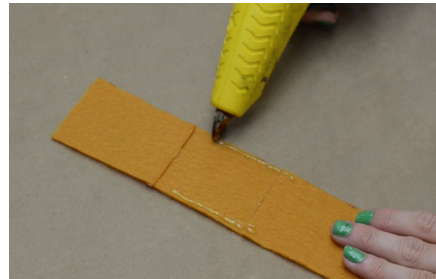
**20.** Wrap all of the points that you soldered with electric tape. Trim any excess tape.



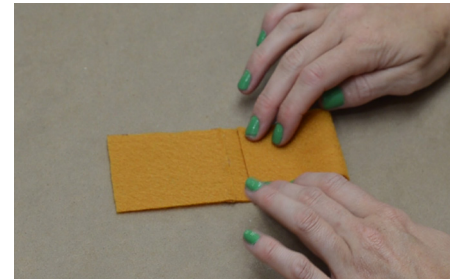
**21.** Glue the edges of three 3" x 3" squares together so that they are in a row. You should have these squares left over from step one.



**22.** Measure and trim 1/2" from one of the long edges of your glued strip of squares.



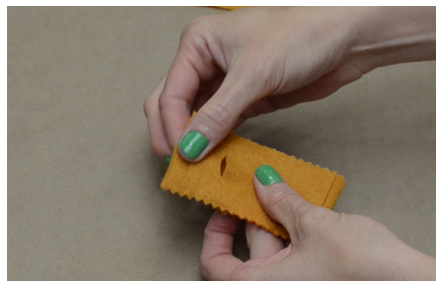
**23.** Apply hot glue to the edges of the center square.



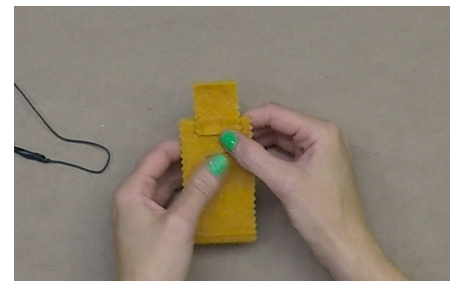
**24.** Fold the bottom square over the center square and firmly press it down.



**25.** Apply a small amount of glue above the square that you just folded up and then fold the top square down. The top square should slightly overlap the bottom square.



**26.** Flip the pouch over and cut a small hole into the back of your pouch. It should be near the top edge of your pouch.



**27.** Cut and attach a small tab of fabric to the top of the back of the pouch.





# Light-Up Tote Bag

## Part Three: How to Attach the Circuit



**28.** Flip the bag inside out and measure a 2" hem along the opening of the bag.



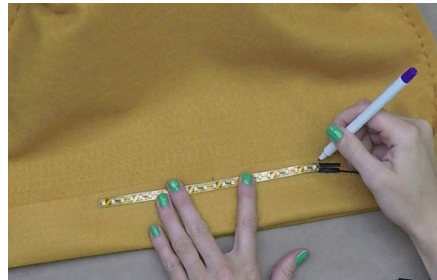
**29.** Apply hot glue to the side seam and fold the hem down.



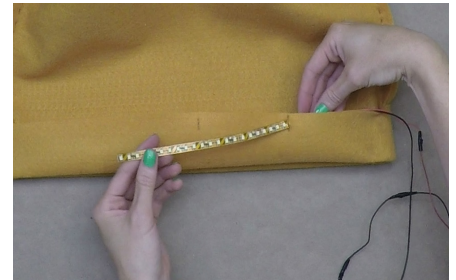
**30.** Repeat step 29 on the other side of the bag.



**31.** Find the center point of the hem and mark it. Also mark the center point of your LED strip.



**32.** Center and line the LED strip along the bottom edge of the hem and mark where the LED strip's end is.



**33.** Make a small cut where you marked the end of the strip and feed the strip through the hole so that its wires are beneath the hem.



**34.** Remove the adhesive from the back of the strip and hot glue the strip onto the hem.



**35.** Now take your remaining square from step 1 and cut it in half. Glue this tab above the LED strip at the center of the hem. Save the other half for another tab.



**36.** Use the craft knife to make two holes for the purse clasp.





# Light-Up Tote Bag

## Part Three: How to Attach the Circuit, continued



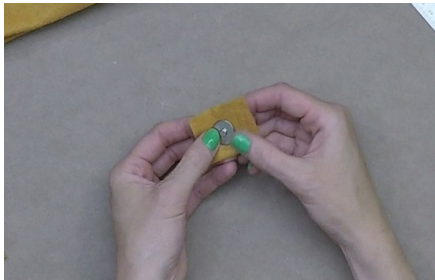
**37.** Attach the magnetic end of the purse clasp above the LED strip.



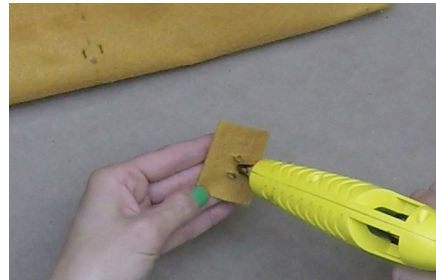
**38.** Secure the hem to the bag by hot gluing it beneath the LED strip.



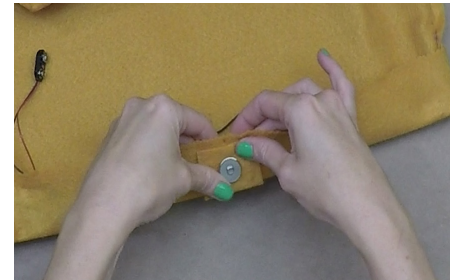
**39.** Flip the bag over and find the center point on the hem.



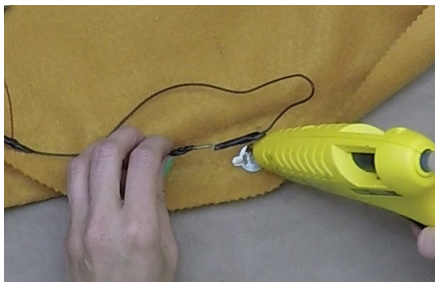
**40.** Make another tab in the same way that you made the one in step 35. Glue the other half of the purse clasp to this tab.



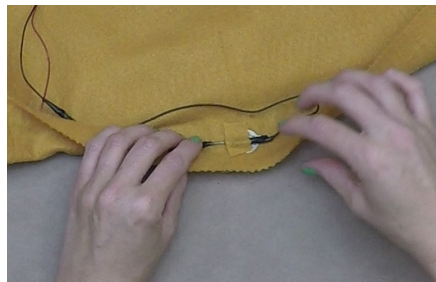
**41.** Apply glue to the back of the tab.



**42.** Attach the tab to the center of the hem.



**43.** Glue one of the taped connections on the switch, not the switch itself, to the back of the purse clasp.



**44.** Glue a small piece of fabric over the switch to protect it.



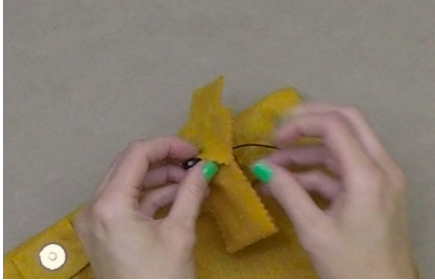
**45.** Make sure all wires except for the battery clip's are tucked under the hem. Glue the hem down.





# Light-Up Tote Bag

## Part Three: How to Attach the Circuit, continued



**46.** Run the battery clip through the hole that you made on the back your battery pouch.



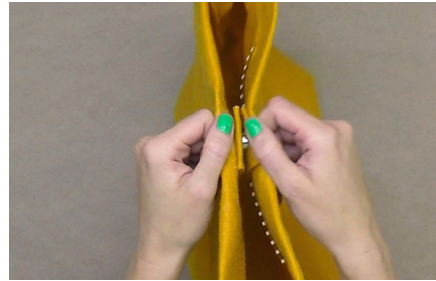
**47.** Glue the tab of the pouch onto the hem of the bag.



**48.** Snap the clip onto the battery and tuck it into the pouch.



**49.** Finally, attach the straps that you made in steps 7-9 to the other side of the hem. Your Light-Up Tote Bag is now complete!



**50.** When the magnet is near the switch, the lights will turn off.



**51.** The lights will turn on when the bag is opened and the magnet moves away from the switch.

