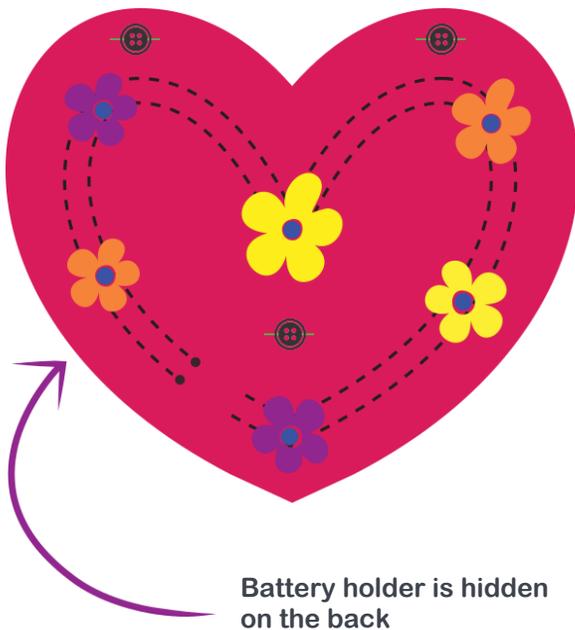


Design your LED Applique

Step 1: Plan your design. Where do you want lights? Where will the battery go? Sketch your design and circuits. The circuit itself can be part of the design. Mark the polarity. Design ideas at the back of your handout can help you get started!

Use this space to plan your idea for the circuit, including the placement of the LEDs & battery.





Step 2: On the backside of the applique use chalk to draw your circuit design. Draw parallel positive and negative trails about 1/2 inch apart, never touching or crossing. Remember that your stitched trails start at the battery and end before returning to the battery, as in the illustration here. See examples of other circuit shapes on the last page.

Step 3: Draw the lines of the circuit to connect the positive side of the battery to the positive sides of the LEDs. Do the same for the negative side. Remember that the positive and negative trails

cannot cross – leave about a 1/2 inch between them.

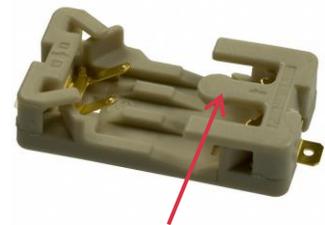
Step 4: Pull out 8 inches of thread from the needle and bobbin before sewing – do this at the beginning and end of each trail.

Step 5: Stitch so that the backside of the applique is up. The conductive thread should be in the bobbin and will sew onto the front side of the applique.

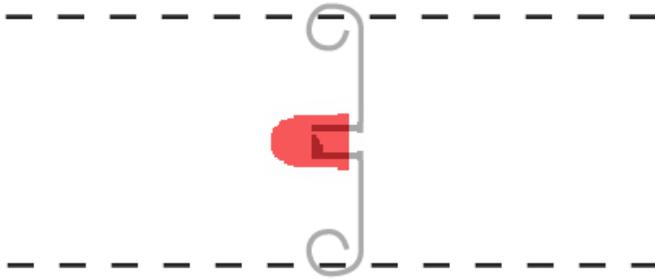
Step 6: Sew along the positive line you drew. Do not back tack. Repeat for the negative line. Do not cross trails. The trails should look similar to the picture.

Step 7: With a needle, poke the thread tails to the back side of the applique. Find the positive side of the battery holder (the positive side has the three prongs). On the back, tie on the battery pack by inserting the ends of the thread through the battery holder and tying a knot at each end to hold it in place.

Try to get the knot as close to the fabric as possible. Put a dab of fabric glue on the knot to secure it if the battery pack wobbles.



Positive side



Step 8: On the front side of the applique, insert the LED legs under the conductive thread, but not through the fabric. Make sure the longer leg connects to the positive trail and the shorter leg connects to the negative trail. With the pliers, curl the LED legs around the conductive thread.

Step 9: Insert the coin cell battery and wear your LED skirt! Troubleshoot LEDs that are not working.

Step 10: Decorate your applique with ribbon, sequins, or whatever you like. If you take apart an artificial flower, the center hole will just fit over an LED.

Step 11: Place the applique over your garment where you would like to attach it. Mark the location and hand sew on a button. Cut a slit big enough for the button in your applique. You may need more buttons to secure your applique, sew as many as you need!

Admire your work!

Sample Circuit Stitching Patterns

