Create a Decorative Conductive Fabric Button

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These instructions can be used to create a variety of switches- not just the one I've made here. Feel free to change it up and make a button that works with your project, such as a cat button with conductive thread whiskers you can stroke or a guitar button with strummable strings!

The type of switch you're making is called a 'momentary' button or switch. What that means is that you're only momentarily making a connection. When you bring the thread in contact with the fabric, you are creating a path for electricity that lasts only as long as the thread and fabric are in contact. When you take your hand away, the thread will spring back to its original position, and you will no longer have a closed circuit. On a practical level, this means that you can sew the switch into a circuit and use it to turn something on. If the switch is placed, for instance, between a power supply and an LED, the light will turn on while you are activating the switch, and off again as soon as you stop pressing the thread and fabric together.

Materials:

This list is to create the switch pictured; the only real constants if you want to change the style of the switch are conductive thread, conductive fabric, a non-conductive material to insulate between them, and an adhesive.

Conductive Fabric [1]

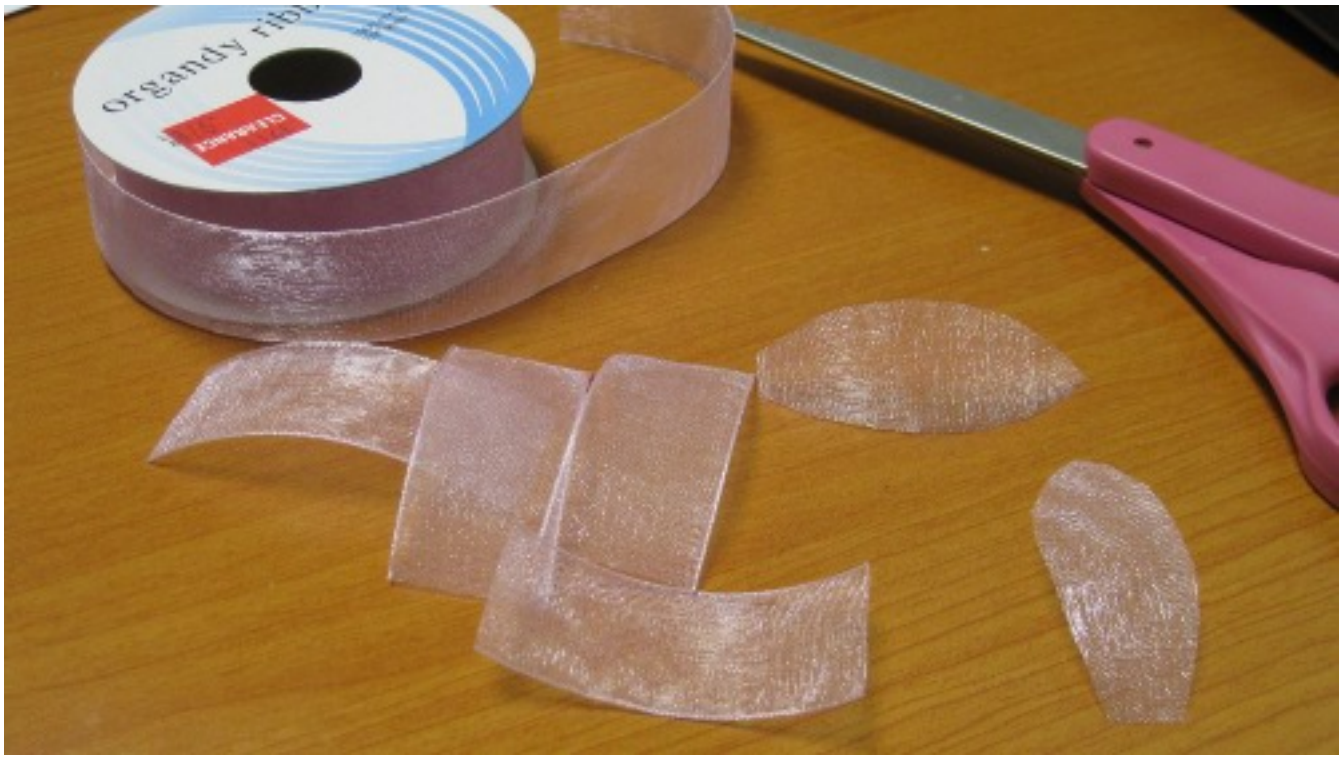
Conductive Thread [2]

Stiff, Non-conductive fabric (I used felt)

Non-conductive ribbon

Hot Glue

Chenille Needle [3]



First, cut about 15 small strips of ribbon, roughly as long as you'd like the longest point of your flower petals to be. Mine were about 2 inches long, but go ahead and customize it to your project. Trim each strip into an oblong with one pointy end and one flat end. I highly recommend having one flat side, as it makes them easier to line up when you're creating your flower, but beyond that, the shape and quantity of the petals is an aesthetic decision- feel free to pack more petals in or change the shape as you see fit!

CLICK HERE [4] to see the rest of the instructions at www.sparkfun.com [5].

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Links:
[1] http://www.sparkfun.com/products/10056
[2] http://www.sparkfun.com/products/8544
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