Tapetricity: A Makerspace Project
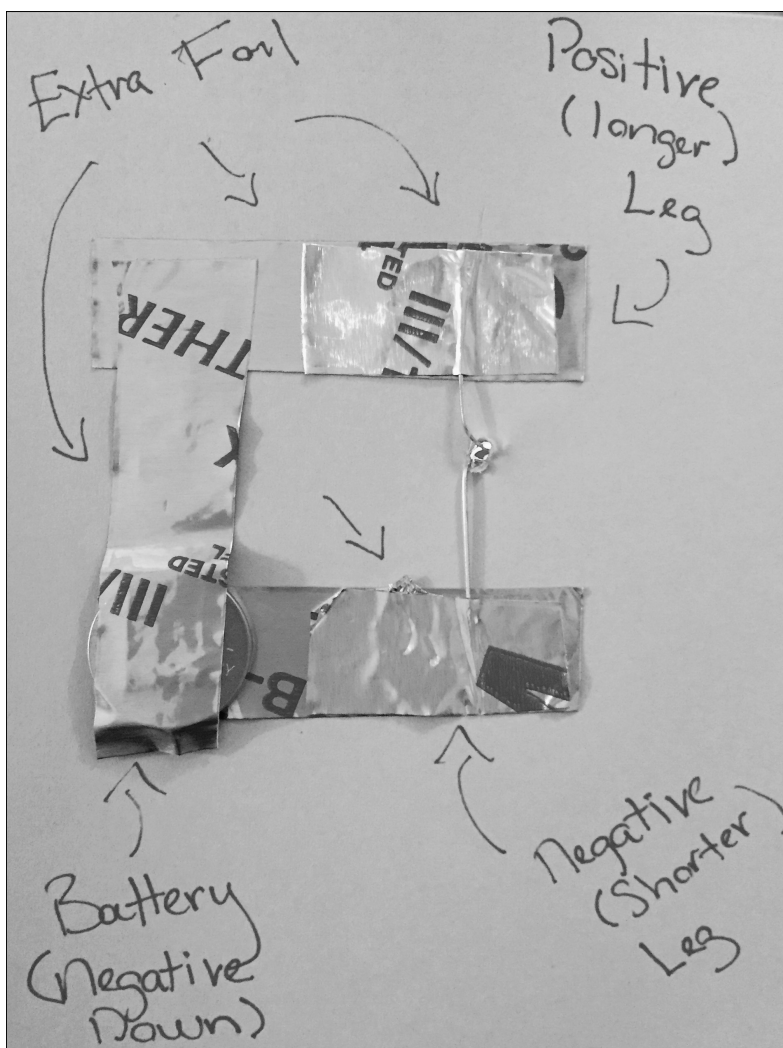

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TAPETRICITY PROJECT

Objective

The objective of this project is to teach participants about simple electrical circuitry.

Goals

Participants will learn how to create an electrical circuit.

Supplies

- Scissors (project coordinator use in advance of the presentation)
- Aluminum tape (plumbing department of home supplies store)
- One LED light per participant
- One lithium battery (3V) per participant
- Five pieces of aluminum tape per participant
- One half-sheet of 9" x 11 1/2" paper per participant
- One piece of 1" x 2" aluminum foil per participant
- Push pins
- Markers/pens

Instructions

It is recommended that the project coordinator cut the aluminum tape into small pieces in advance of the project.

1. Fold the paper in half to create a card.
2. Draw a design on the front of the paper card, indicating where the LED should be placed.
3. Poke a hole in the paper for the LED, preferably near the center of the card front.
4. Place the two longest pieces of tape parallel of each other, one above and the other below the LED hole.
5. Insert the LED.
6. Separate the two legs of the LEDs, making note of the length of the legs.
7. The shorter (negative) leg should be on the bottom side of the paper and the longer (positive) legs bent to the top side.
8. Fold a small amount of aluminum foil around each leg and tape a small piece of aluminum tape across each of the legs on top of the parallel strips.
9. Place the battery, negative side down, on the strip of tape that lies across the two negative legs.
10. Use the third piece of tape to secure the battery to the negative tape AND create a bridge between the positive and negative pieces of tape. Adding a small piece of aluminum foil helps increase conductivity.
11. If done correctly, the LED should light up!

BUDGET

Budget for 50 Kits

This is a budget for 50 kits. It assumes that you have access to paper and scissors.

Description	Quantity	Unit Price	Cost
Aluminum Tape	1	$ 7	$ 7
LED Lights	1	$ 10	$ 10
3 Volt Lithium Batteries	1	$ 8	$ 8
Total			**$ 25**