

# Popup LED Card

By Jonathan Stevens

# Jonathan Stevens

- Columbus, Ohio
- Father of six
- Programmer



# Thanks

- Donavan Stanley  
and Columbus  
Idea Foundry
  - For the use of  
the Laser Cutter

<http://www.ColumbusIdeaFoundry.com/>



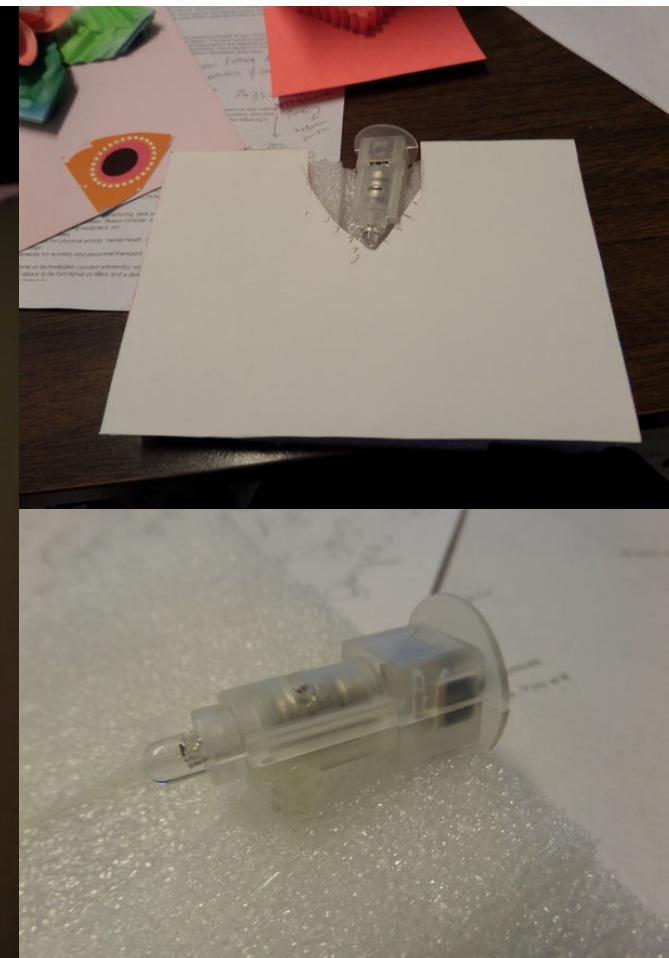
# Laser Cutting Paper Video

<https://www.youtube.com/watch?v=dAVPsuy8o8w>

# Inspired by

<http://www.instructables.com/id/Light-Up-Pop-Up-Card/>

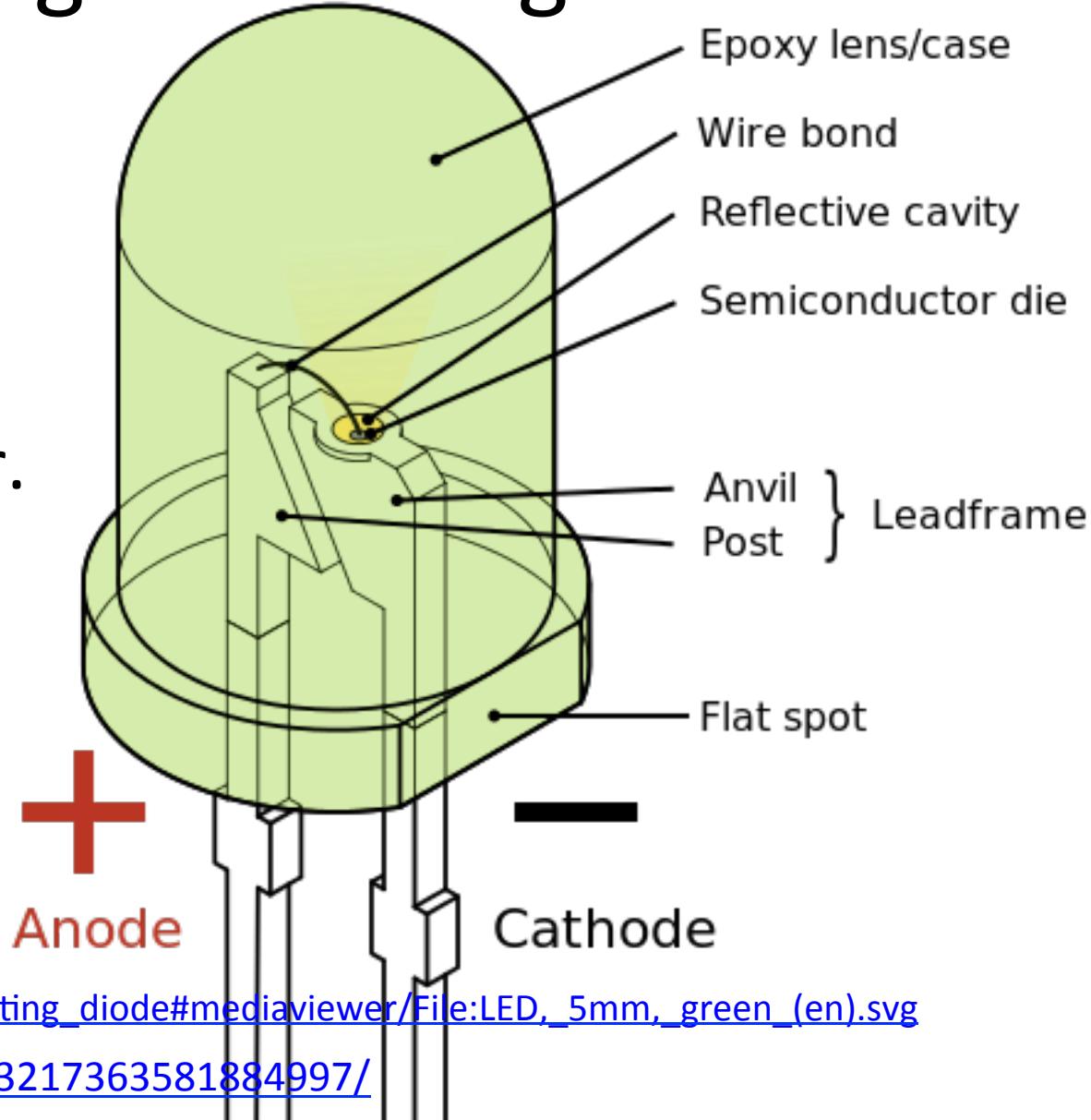
Mother's Day Ideas



# What's a circuit?

# What is a light emitting diode?

- Can't we just plug it in?
- Positive lead or Anode is longer.
- Negative lead or Cathode is next to the flat spot.



[https://en.wikipedia.org/wiki/Light-emitting\\_diode#mediaviewer/File:LED,\\_5mm,\\_green\\_\(en\).svg](https://en.wikipedia.org/wiki/Light-emitting_diode#mediaviewer/File:LED,_5mm,_green_(en).svg)

<https://www.pinterest.com/pin/213217363581884997/>

# Learn MORE!!!!

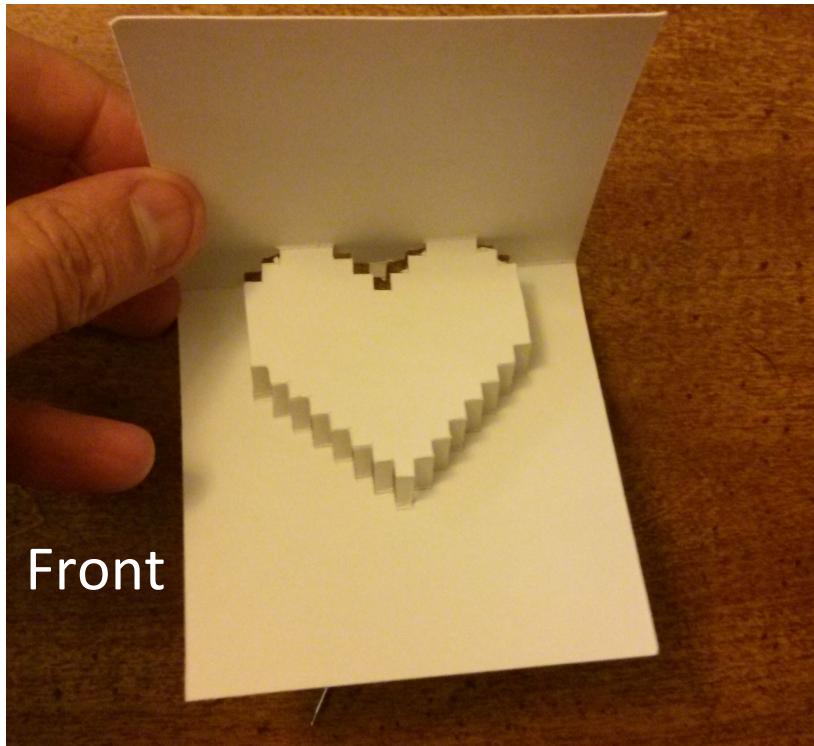
- <https://www.adafruit.com/>
- <https://www.sparkfun.com/>
- <http://www.instructables.com/>
- <http://makezine.com/>  
<https://www.youtube.com/user/makemagazine>

# Step 1 Get Supplies

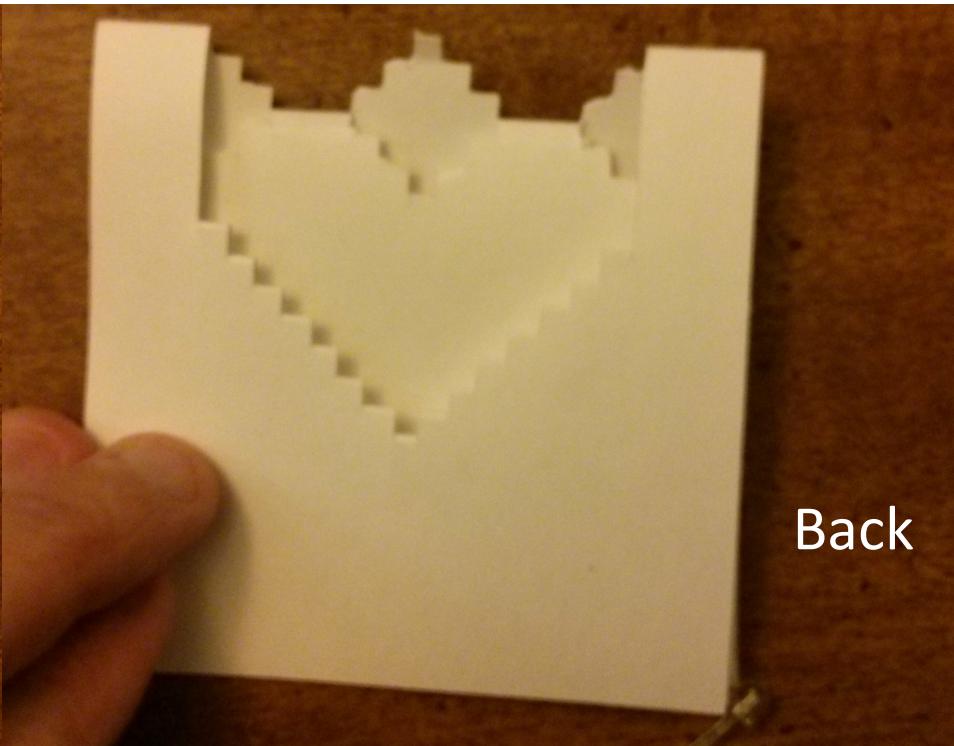
- Pre Cut Card Paper
- LED
- Conductive tape
- Clear Tape
- Coin Cell Battery with 3 volts of power

# Step 2 Get the card to fold

- Set the hart folds at top and bottom
- Set the fold on the Card



Front



Back

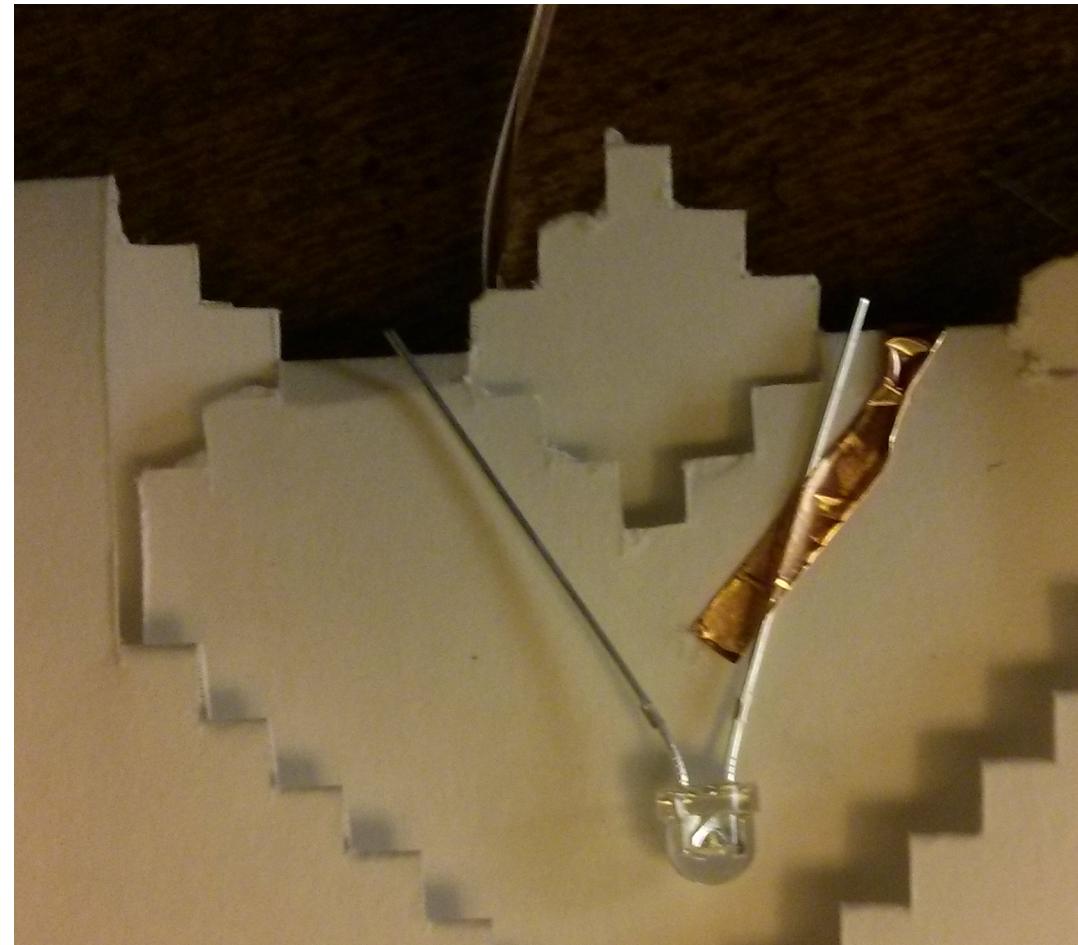
# Step 3 LED

- Find the positive and negative leads of the LED
- Test the LED with your coin cell battery
- Bend the LED leads so they will fit the folds of the top of the hart
- Positive Left
  - Longer Lead
- Negative Right
  - Flat spot on LED
- Tape the LED in place

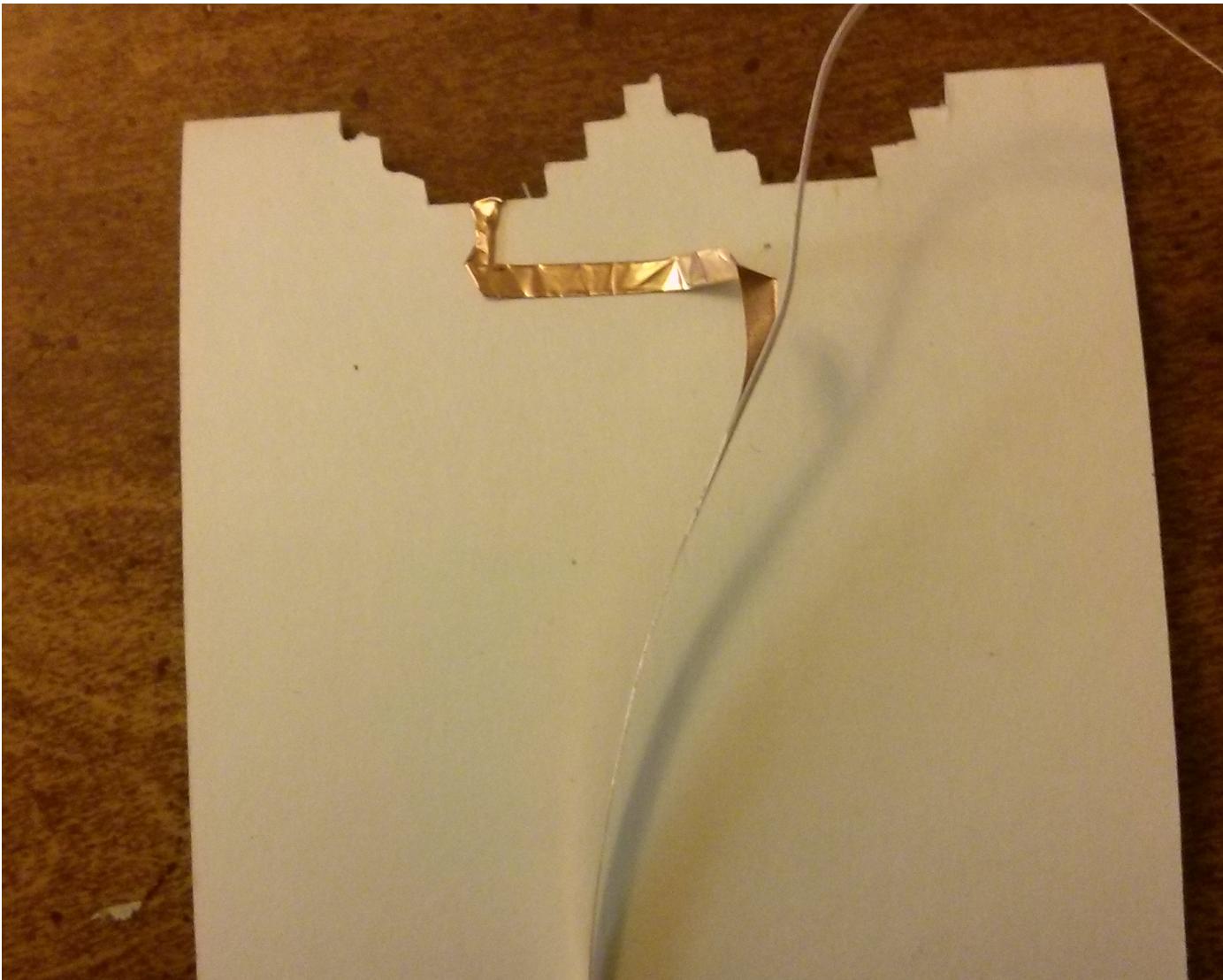


# Step 4 Conductive Tape on Negative Lead

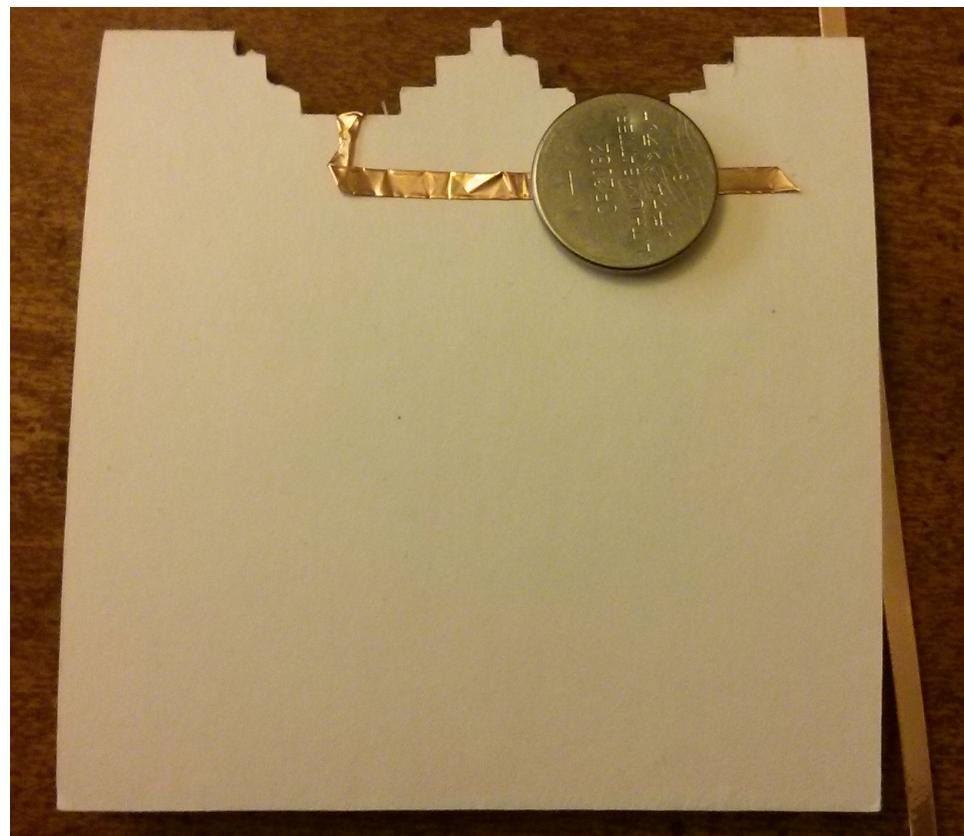
- Test it on the battery to make sure you have it connected correctly



# Step 5 Conductive Tape Turn

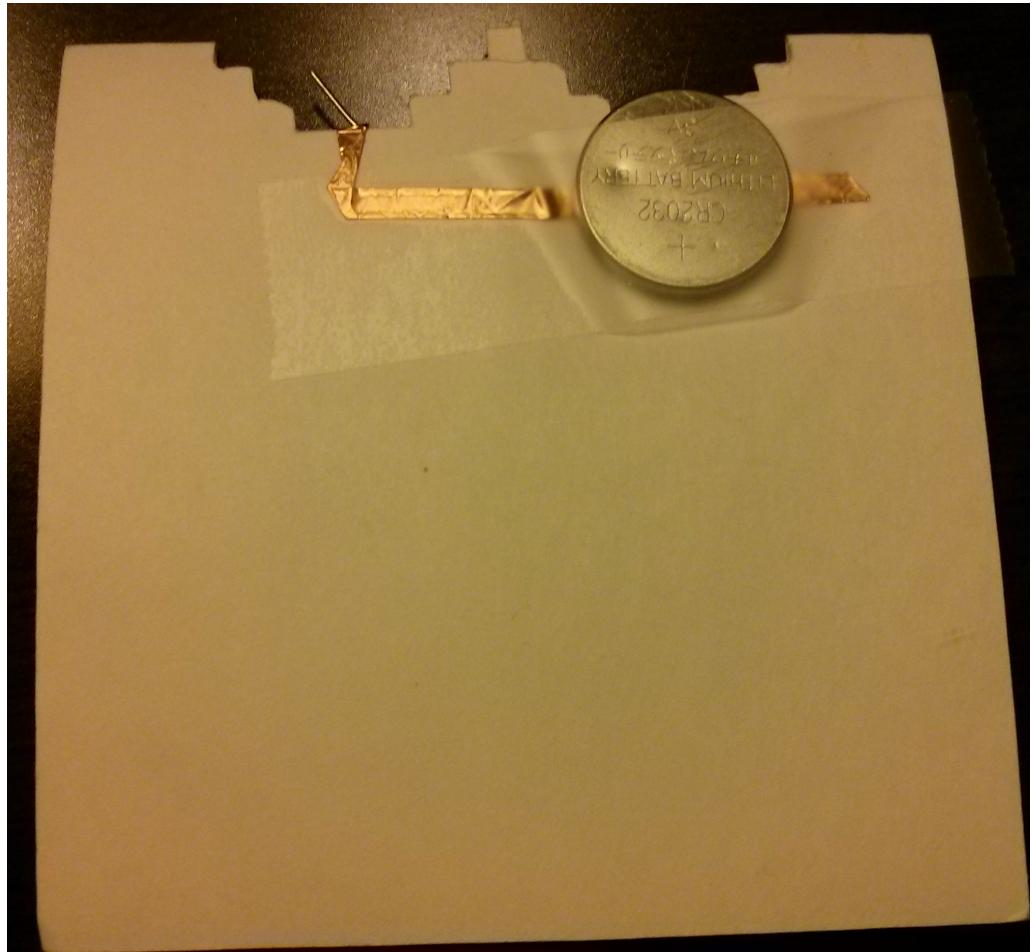


# Step 6 Conductive Tape To Battery



# Step 7 Tape Battery to back of card

- Test it out
- Keep adjusting it until it works
- Be sure you are not shorting out the battery



# Thanks you

- @Jonathan75
- <https://github.com/Jonathan75/Talks>