

DEBUGGING



DEBUGGING

So your light doesn't turn on?

No worries! Use this guide to carefully review the circuit, and it's likely you will discover how to make it shine the way you want.

Is the LED backwards?

If your LED is in reverse, it won't shine. A quick way to check is to flip your battery over in the battery holder. This reverses the + and - terminals, thus matching the connections of a reversed LED.

Is the LED connected?

Sometimes a connection just isn't strong enough. Try pressing on the metal pads of the LED stickers to make sure they are firmly connected to your foil tape. The LED stickers work best with foil that is flat, not wrinkled. Flatten wrinkled foil by rubbing it with a soft pencil eraser.

Is the battery connected?

Try pressing on the battery and re-clipping the battery to ensure that the foil tabs in the battery holder are actually touching the battery's contacts.

Is the battery shorted?

If the + and - sides of your battery are connected directly with a metal such as copper foil, you will drain power from the battery rather than turn on the light. Inspect your circuit and make sure that the foil traces from the + and - sides of the battery are not accidentally touching.

Is the battery dead?

Sometimes the circuit doesn't turn on simply because the battery is out of power. Try switching your battery out for a fresh one.

Are the copper tape connections secure?

If you taped two pieces of copper foil together to make a circuit, try pressing very hard on the intersection to see if there is a connection issue. When overlapping foil, use a large area of overlap to increase connection strength.

Is there a crack in the copper tape?

If you fold copper tape too many times, it can crack and break the connection. Try re-taping that trace with a fresh piece of foil. If you have access to a soldering iron, you can also solder the circuit back together.

Circuit still not working?

For more tips on debugging and more fun project templates, visit our website at:

chibitronics.com

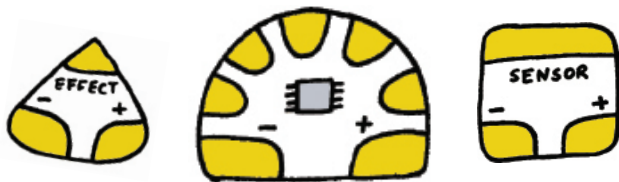
And get your questions answered on the message board at:

chibitronics.com/community

ADDITIONAL RESOURCES

If you had fun crafting with Circuit Stickers, try some of our more advanced projects!

Effects, sensors, microcontroller stickers!



For downloadable tutorials and templates on how to use Effects, Sensors and programmable Microcontroller stickers, please visit

CircuitStickers.com/templates

Share your projects!

Want to share your creations with the world and see what others are making with Circuit Stickers? Submit your projects at

circuitstickers.tumblr.com

AUTHOR'S BIO

Jie Qi is a PhD student at the MIT Media Lab where she looks at new materials and techniques for blending electronics with arts and crafts. She hopes to spread her love of creating imaginative and personally meaningful technology.

ACKNOWLEDGEMENTS

First, thank you to the workshop participants who tried out the activities and Circuit Stickers, giving so much valuable feedback. Also, many thanks to the talented educators at NEXMAP, CV2, National Writing Project, and Exploratorium Tinkering Studio who helped share this work and even created additional resources for the classroom and the museum floor. I would also like to thank bunnie and AQS for helping design, engineer and manufacture Circuit Stickers and making these tools and resources accessible beyond the lab. Finally, a huge thank you to Leah Buechley and the High-Low Tech Group for guiding this work from the very beginning!

This work is made possible by funding and support from the National Science Foundation, MIT and the MIT Media Lab.