



## Circuit Sticker School Binder

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## Plan and Build Your Circuit

Make your school binder glow, sense, or interact with [Chibitronics \(https://adafru.it/dPB\)](https://adafru.it/dPB) circuit stickers!

Circuit stickers are an imaginative and easy way to make fun electronics projects without coding, soldering, or maker experience. Just stick your circuit sticker onto a surface and add a battery to get a unique project that reps your maker spirit. You can even connect stickers with conductive materials like [copper tape \(http://adafru.it/1128\)](http://adafru.it/1128) or even [conductive paint \(http://adafru.it/1305\)](http://adafru.it/1305) to create elaborate designs and art projects.

The stickers are super lightweight, thin, and flexible. They're perfect for educators, artists, and novices and are a great introduction into the world of electronics.

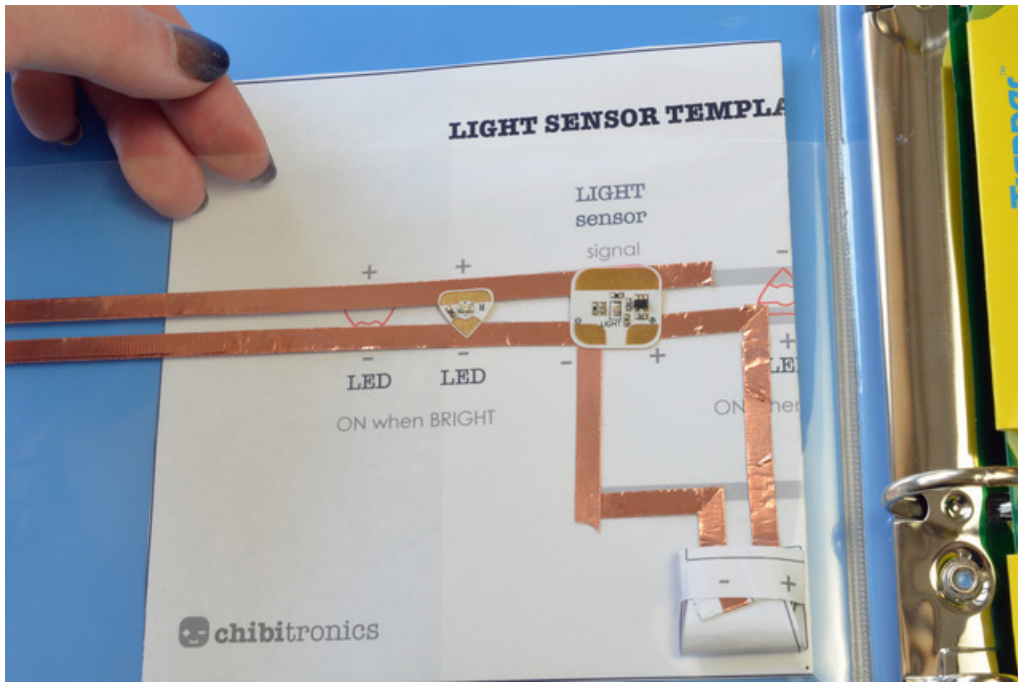


You can use any combination of circuit stickers for your own folder!

- [Chibitronics Starter Kit \(http://adafru.it/1972\)](http://adafru.it/1972)
- [Chibitronics Sensors Add-On Pack \(https://adafru.it/dPC\)](https://adafru.it/dPC)
- [Chibitronics Effects Add-On Pack \(http://adafru.it/1974\)](http://adafru.it/1974)
- [Chibitronics Color LEDs Add-On Pack \(http://adafru.it/1976\)](http://adafru.it/1976)
- [Chibitronics White LEDs Add-On Pack \(http://adafru.it/1977\)](http://adafru.it/1977)

You will also need:

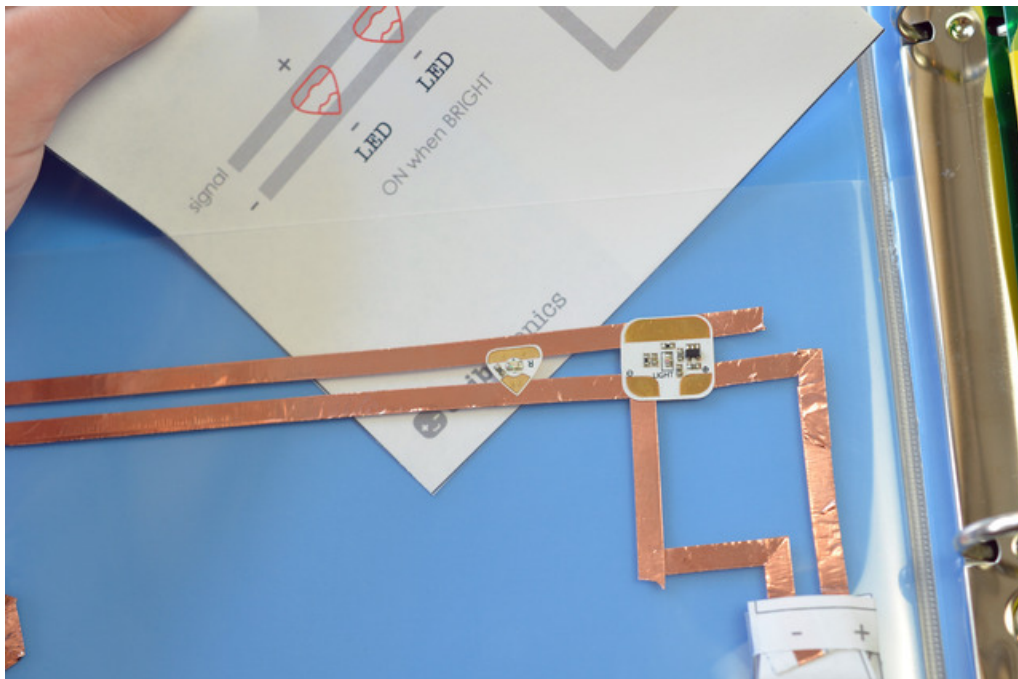
- scissors
- [paper battery holder template \(https://adafru.it/dPD\)](https://adafru.it/dPD)
- [light sensor template \(https://adafru.it/dPE\)](https://adafru.it/dPE)
- [effects template \(https://adafru.it/dPF\)](https://adafru.it/dPF)
- [CR2032 battery \(https://adafru.it/dPG\)](https://adafru.it/dPG)
- [copper tape \(http://adafru.it/1128\)](http://adafru.it/1128)
- scotch tape
- school binder or folder



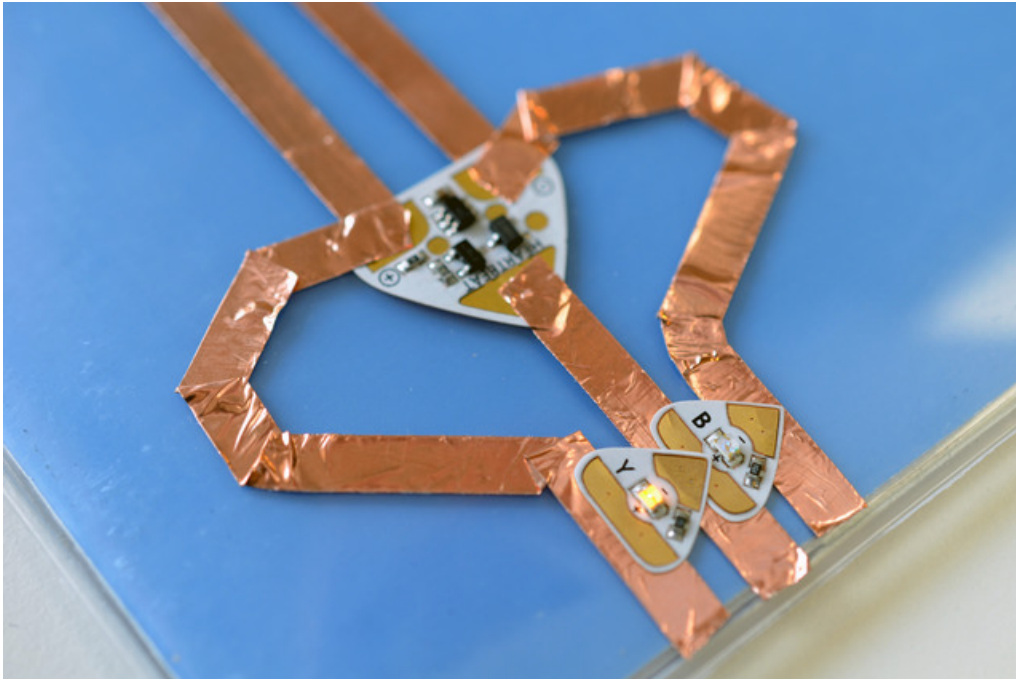
If you want to make your binder circuit turn on when you open the cover, print out the light sensor template and insert it behind the transparent layer (or sketch it out if your surface is opaque).

Apply copper tape and circuit stickers according to the diagram.

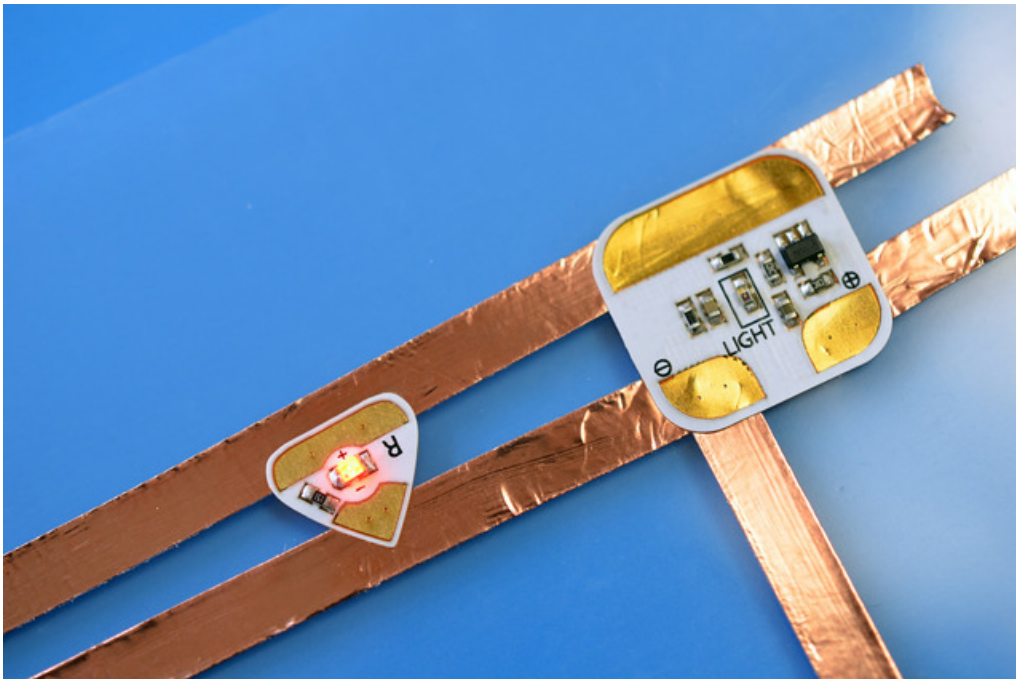
Depending on your circuit's position, the metal binder rings could short your circuit when you close the lid-- you can prevent it by applying clear packing tape over the copper tape!



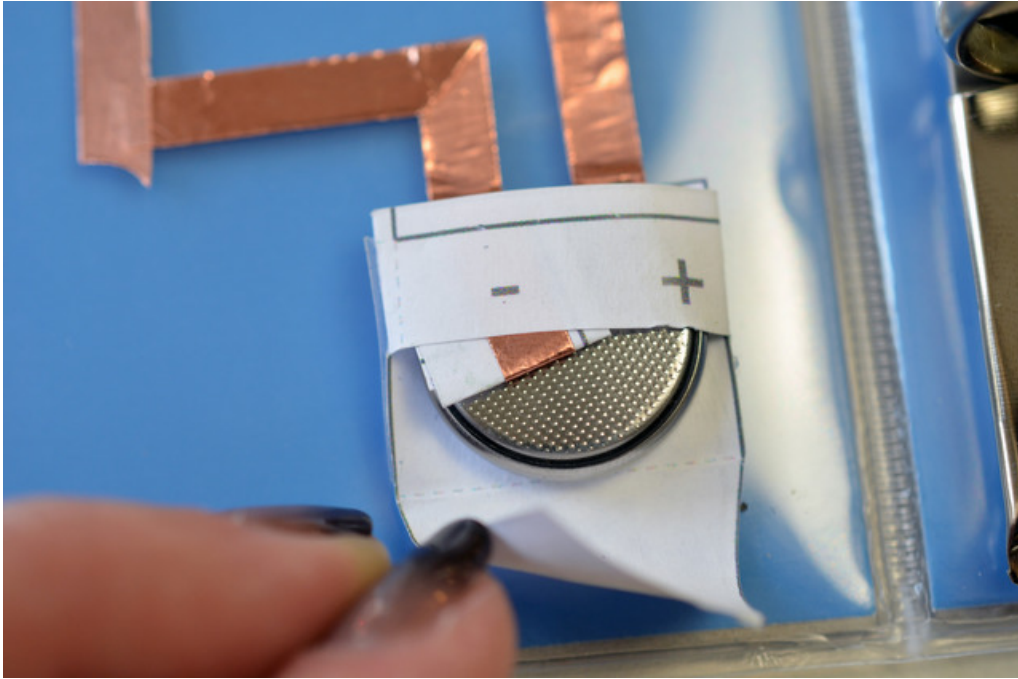
You can then remove the template. If you drew your circuit, the tape and components should have covered your marks.



You can mix and match templates to get your own effects. We added a heartbeat effects sticker which pulses back and forth between a yellow and blue LED.



This red LED indicates when the light sensor is exposed to light. When the binder is closed, the sensor deactivates the circuit attached to it. It can also do the opposite-- connect to the other side to make a circuit activated by darkness! Trapper Keeper ground effects, anybody?



Follow the [Chibitronics paper battery holder tutorial \(https://adafru.it/dPD\)](https://adafru.it/dPD) to fold up a secure pouch for the circuit's power source. The flap can be positioned in the **on** and **off** positions.

Scotch tape the battery holder to your binder and connect up the copper tape to your circuit.