



Congratulations!

You've got in your hand all the pieces you need to make the world's thinnest, programmable bracelet. Take it to raves, use it when you bike at night, and just light up the night.

Best of all, you can reprogram it right from your iPhone/iPod or computer screen.

Here's how to put it together.

Photography | Morteira
Production | ILhaDoUrsO
Model | Nathalie Cohen



Ingredients:

- schemer
- 5 lightboards
- 1 switch
- conductive thread
- thin battery
- pre-cut piece of leather
- adhesive-backed liners.

Everything here comes in the kit, and the leather strap has the buckles already attached.



Preparation

First, a few words about the schemer system.

It's designed to be very easy to hookup, but it's picky about what it's connected to. See the introduction to the schemer bus.

Each lightboard has a specific ID on the bus (indicated by 1-5 small dots), which allows them to light up in sequence even using the same two wires. We don't use the lightboard with ID 3 in this bracelet because it shares that same ID with schemer. You can use it too, but it would light up at the same time as schemer.



Because leather is hard to sew through, the strap comes with laser-cut holes. Putting conductive thread through leather also strips it, making it less conductive, so you will want to punch holes first if you're using your own strap.



Building

First, sew down the + and - holes.



Leave about 3 inches for winding into the battery holder.



Use a bit of tape to connect the wires to the battery.
You should see this flashing pattern.



mov wmv

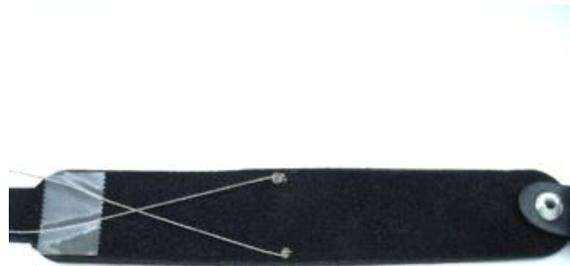
Left lightboards

It's important for the lightboards to be oriented like this:
the one with a single dot (1), then (2), then schemer.
You can certainly rearrange them, but this sequence will
better match your programs.

Tape down the previous stitches so they don't get in the way.



Connect the lightboards using two short stitches.



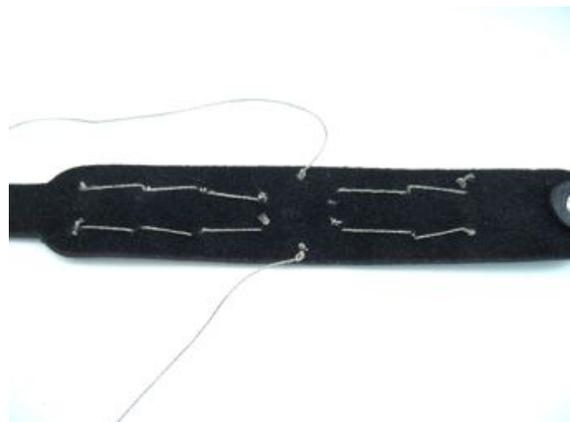
To test, connect to the battery as before. You should see pattern start at the schemer, then move left.



Right lightboards and switch

Now connect the lightboards on the right side, so it's schemer, then (4), then (5), then switch.

The back of your bracelet should like this:



Testing

Again, use a bit of tape to connect the wires to the battery. You should see pattern start at the schemer, then move out.

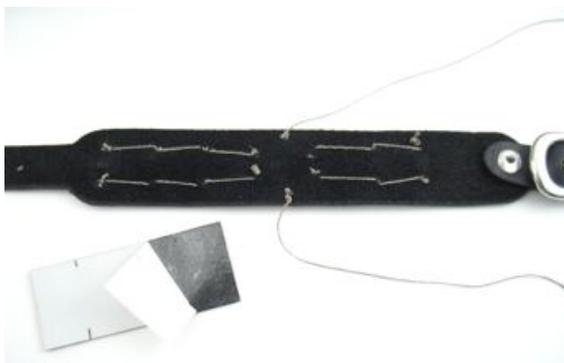


mov wmv

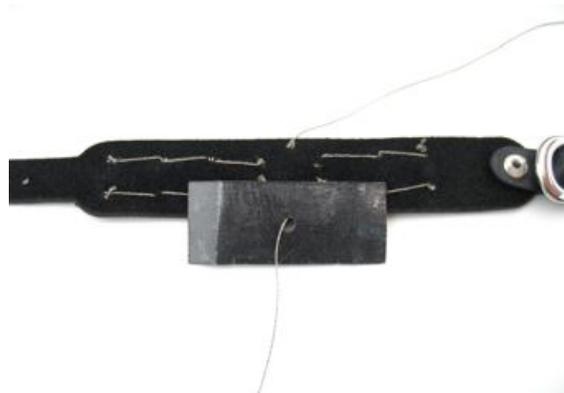
Sealing the battery

One major goal is to keep the bracelet thin, so any type of traditional battery holder would be way too thick for us. We use the adhesive-backed liners to make really thin, yet sturdy battery holder.

Peel off the paper backing from the liner.



With the sticky side facing up, pass the minus conductive thread through the hole.



Now fold the edges and press them to the leather. Then wind the thread on the adhesive side into a small coil.

Place the battery down, minus side down, and press it until you feel it make good contact with the thread. It should stay stuck.

Also make a slightly larger coil with the plus conductive thread on the small disc, sticky side up.



Press the disc unto the battery, and push the thread into the tiny notch so it doesn't stick out.



Seal the back with the longest adhesive liner.



Et voilà!
The world's thinnest, programmable bracelet.





End notes

To program your bracelet, you need to put it into "programming mode." You know when schemer enters this mode because it flashes its onboard light 3 times, then turns off all the lights. In this state it waits until you send it new programs from the screen. To get out of this mode, press the touch pad briefly and it will resume flashing like before. *Make sure you don't press too long, otherwise it will "fade off to sleep".*

To program it,

- Go to aniomagic.com/schemer
- Press the touch pad for 1 second until it goes into programming mode.
- Put schemer in front of the yellow flower.
- Press "Send".
- Hold it still until the web browser finishes sending the program

If there's a problem, hold schemer closer to the screen or make the display brighter. Then try again. If you can't get schemer to flash 3 times when you touch the pad, try wetting your finger and make sure your finger is touching the touch pad and the bottom hole marked minus (-). As a last resort you can use a paper clip instead to improve the conductance.

To make your bracelet sleep at any time, press the touch pad to go into programming mode, as before. Keep holding it down and eventually it will "fade off to sleep".

Your bracelet can also automatically sleep after some time of inactivity... just press the touch pad for about 1 second to wake it up.

As always, go to aniomagic.com/support if you have any questions or issues.