



MACHINE SEWABLE

LED STRIPS INSTRUCTIONS

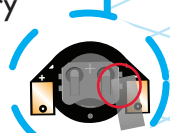


CIRCUIT DESIGN TIP:

To build parallel circuits, as a general rule; connect all the positives (+) then connect all the negatives (-) with separate rails.

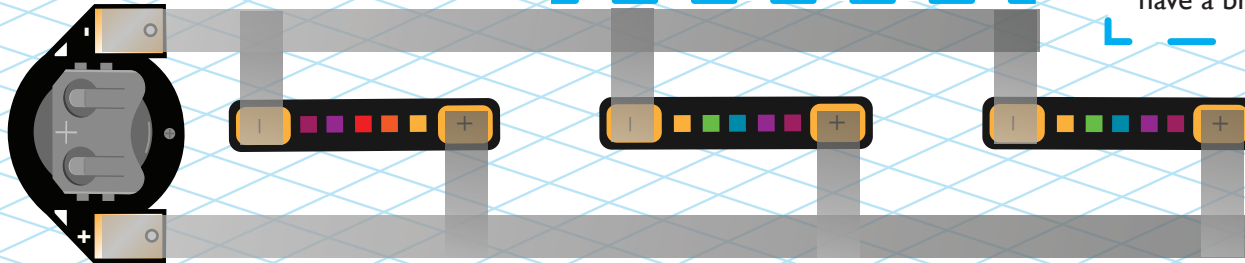
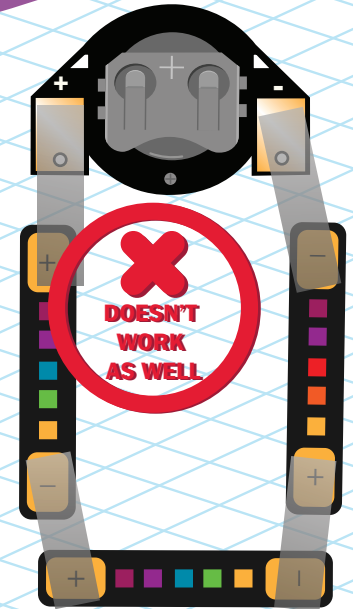
TROUBLESHOOTING

If the circuit is not working, check for shorts by looking for areas that connect the positive and negative rails, including tape overlapping the battery holder. Also, if one LED is around the wrong way, the whole circuit won't work. Check your polarity!



HOW MANY LED STRIPS?

You can run up to 4 Rainbow LED Strips in a parallel circuit, and any more the circuit will slowly shift towards showing mostly low-voltage colours of red, orange and green. The more LEDs you add, the dimmer they will become and drain the battery at a faster rate. You can try to use two stacked CR2016 instead of the CR2032 battery to create 6V and have a brighter circuit with more LEDs.



PARALLEL VS SERIES

This style of circuit above will not work as well as the other layouts because it is in series. We want to make sure that our circuit is always in parallel, which will make sure each light receives an equal share of the voltage and will be the same brightness. In a series circuit, there is only one path and the voltage drops on it's way through, making the lights very dull or not work at all. Try it out and see what happens!

ADDING A SWITCH

These circuit examples are always on. You can add a switch in a range of different ways and it can be added between the battery and LED strips. Two touching pieces of conductive tape can be a switch, or you can use snap fasteners, slide switches or buttons to turn your circuit on and off.



WASHING YOUR CREATION



Before washing, take out the battery and the screw and store in a secure, child proof location. Hand wash and drip dry your creation. Do not machine wash or machine dry. Avoid excessive flexing of the LED strips while washing. Do not re-insert the battery until completely dry.

Any questions or feedback?
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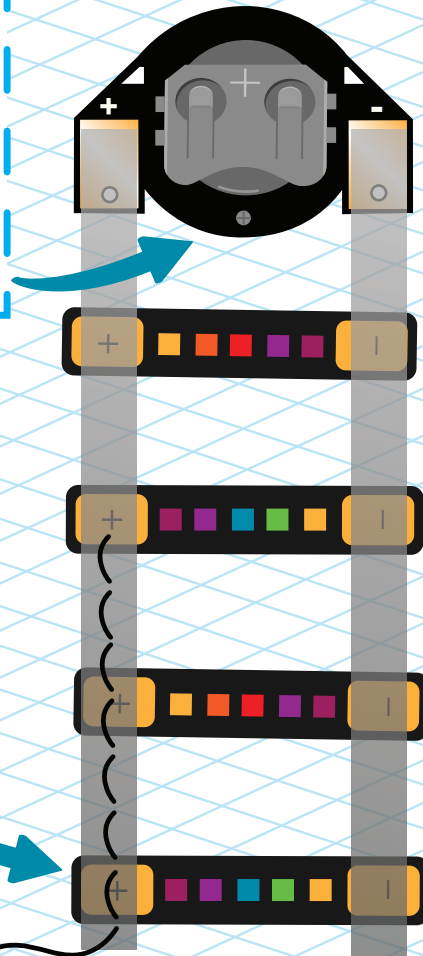


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BATTERY SAFETY

In your kit, you will find a small screw and screwdriver. The screw can be installed in the small hole below where the battery slides in. This is a safety feature as coin cell batteries are a swallowing hazard for young children. Any child who is thought to have swallowed a coin cell battery should be immediately taken to the nearest emergency department.

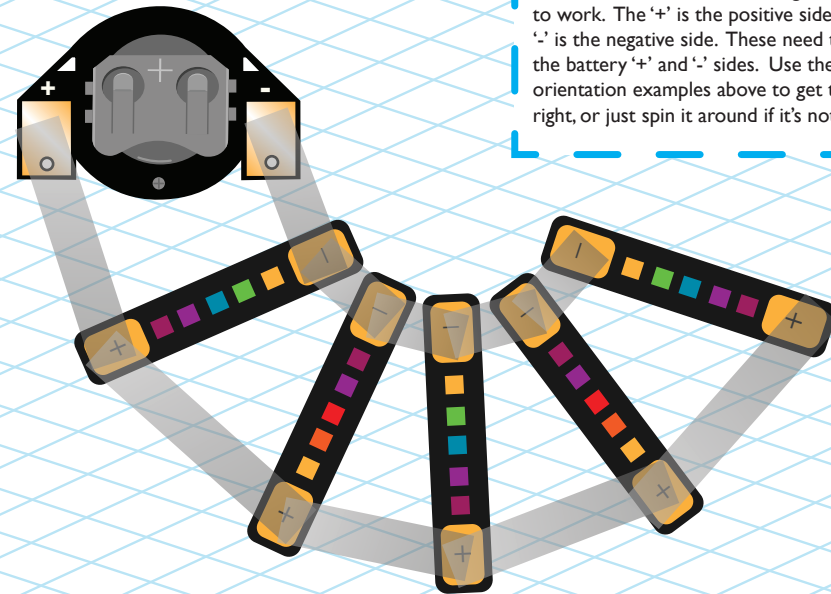


MACHINE SEWING

Run your LED strips through the sewing machine to finalise your design. Make sure to only sew the gold pad areas and not beyond it where the LEDs lay. Do not sew into the battery holder; there is a small hole in the battery pads for you to hand stitch this down into place. Standard non-conductive thread is fine for this. You can also use double sided tape to help secure your parts in place.

LED ORIENTATION

LEDs need to be around the right way to work. The '+' is the positive side and '-' is the negative side. These need to match the battery '+' and '-' sides. Use the orientation examples above to get things right, or just spin it around if it's not working.



PROJECT TIPS

Excessive LED flexing can result in the strips breaking. Position your strips in your project to avoid this, ie. do not position strips inside elbow/knee joints on clothing. You may also add a stiff backing fabric below your circuit to help protect your circuit from extra flexing, especially if you plan to regularly wash your project.

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