

Instructions for Lighting Individual Steps with LED Tape Light

This more complex version of under stair lighting has the underbelly or lip of each individual step lit by LEDs. This is an advanced technique which requires the skills and knowledge of electrical soldering work. This is not a beginner's project and if you feel unsure of your ability to complete this project, please call a licensed electrician instead.

These instructions assume you already have a suitable location for your LED driver and are wiring your lights to or from the driver's location.

Step 1 – Measure and Prepare Lights and Wires. First, measure (twice!) and then cut your LED strip lights to fit each step. Remember to only cut the strip on the designated cut lines to preserve functionality. If you are using pre-cut lengths of LED strip lights with at least one male connector end attached to each strip and buy [2-wire adapters with female ends](#), you can connect the lights in parallel without soldering. If not, you'll need to prepare the wiring as you go along with each stair.



For every length of 18 AWG wiring that will be attached to the lights, strip off about a half-inch of the insulation from wire ends and lightly pre-tin the exposed copper wire. Tinning the wire means coating the twisted wires with a light coat of solder. After you straighten and carefully twist together any of the bent exposed wires, tinning will help you attach the wires more easily to your strip light. You must also put a drop of solder on whichever positive and negative copper pads of the strip light you plan to use for the connections. The pads are recognizable by the plus or minus signs and are often on the cut lines for the LED strip lights. Please note that this only works if your strip lights are non-insulated or not covered with a silicone coating. We don't recommend removing or cutting open the insulation of that kind of LED strip light, since it will void any weather or water-resistant features.

Step 2 – Placement of Wiring. This step is optional depending on the type of staircase. If you have floating steps, the wiring can be connected underneath each step. If your staircase has paneling between each step, you may need to drill into the steps or add extra molding to conceal your wires. You will need access to the area beneath your staircase as drilling into steps would result in the wiring coming out underneath the staircase. You would make your connections there, wiring to the driver.

Step 3 – Connect LED Strip Lights to the Driver. Trim your tinned wires until only about a quarter inch of the original exposed length remains. Use the soldering iron to press one positive and one negative wire to the prepared soldered pads for each strip light. Those wires should be connected in parallel to the LED driver location. For example, each positive wire from the LED strip must connect via wire nut to the positive wire of the LED strip preceding it. In addition, a third positive wire would also be included in the wire nut connection. The third wire would continue the wiring forward to the next LED strip until you reach the positive wire from the power source. All the positive wires should only connect to other positive wires, vice versa for negative wires.

Step 4 – Connecting Driver to Light Switch. Assuming you want a controller for you lights, your LED driver will need to be placed near and wired to a switch. You may consider building a compartment to conceal it or recessing it into the wall below the switch. You do not want to use a driver with a built-in or molded plug for this step, since the plug would have to be removed. Turn off the power to the switch and then connect two of the wires, one positive and one negative, to your LED strip lights and the other two wires plus the ground wire (usually green) to your light switch. Read the manufacturer’s installation instructions for more detailed information about wiring your LED driver.

These instructions originally come from: [How to Install Under Stair Lighting](#)