

# SMTLightBoard



Step	Picture	Detail
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## ABOUT

A bright package, in a tiny but expandable footprint.  
I had a request to design an expandable LED light strip, and this is the result.  
SMTLightBoards can be strung together in series to make much larger arrays.

SMTLightBoards designed by Charley Jones, PMP  
aka Dataman for SMTBoards.Com  
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## PARTS LIST

1



Kit as distributed  
Available soon.

Content details below.

1a		SMTLightBoard
1b		<p>10 LEDs. 9 Required 1 as a spare just in case.</p> <p>Note, LEDS are polarized, that is, must be placed in the right orientation for the circuit to work.</p> <p>Typically the arrow points towards away from positive. We indicate positive in our circuits with a dot.</p> <p>We did notice that the RED LEDs are marked in reervse. That is the arrow points towards Positive, but only for RED Leds.</p> <p>It's best to test all LEDs before using them in circuit. Easier to test than it is to remove. We suggest <a href="#">STMTester</a>.</p>
1c		<p>4 120 Ohm resistors. 3 Required. 1 as a spare, just in case.</p>

**OPTIONAL / NOT PROVIDED**

1d



2 Pin Male Header

Optionally used to connect power supply to SMTLightBoard, and to other SMTLightBoards.

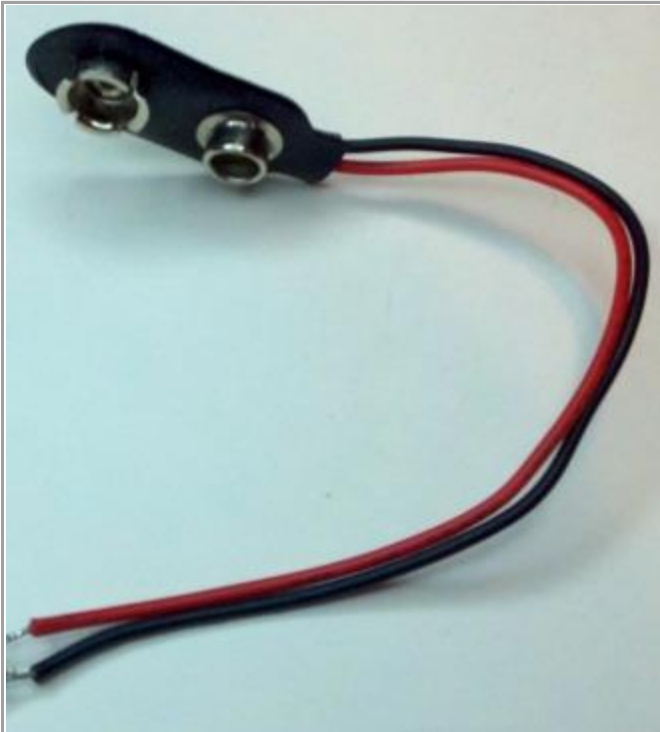
1e



2 Pin Female Header

Used to connect the power supply to the SMTLightBoard, and to other SMTLightBoards.

1f



9V Battery Clip

Used as an easy way to test power the SMTLightBoard.

## ASSEMBLY INSTRUCTIONS

2



Start by placing a small drop of solder on the left/top most pad.

3



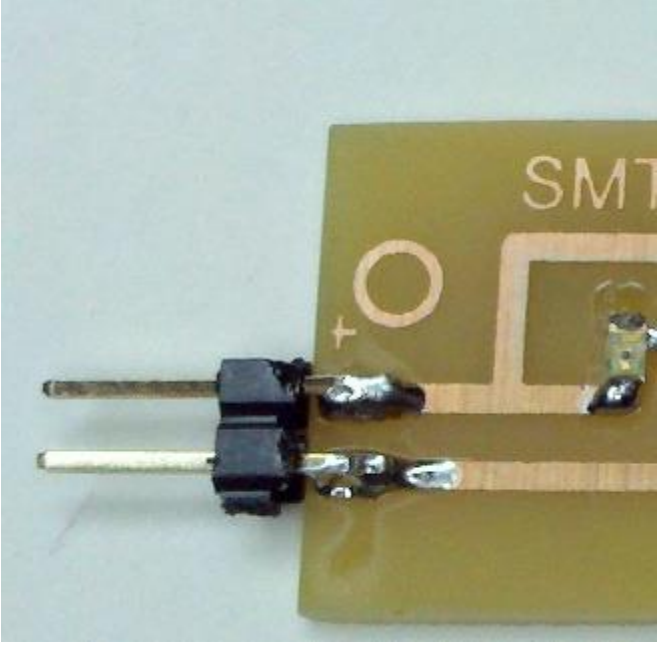


Heat the blob of solder and slide the negative end of the resistor onto the pad. Remember, arrow points toward negative Yellow or Green LEDs. For RED LEDs the arrow points away from negative. Positive is indicated by the dot. In this picture, negative is up. Complete installing LEDs by soldering the positive side.

4



Complete the circuit by heating the solder and sliding the resistor in place. Resistors are not polarized and can be installed in either direction. Complete the installation by soldering the opposite side.

Repeat the process for the remaining two sets of LEDs.

5		<p>Optional: Add a 2 pin male header to the left of the assembly.</p> <p>To allow linking SMTLightBoards, attach a 2 pin female header to the right board, or simply solder the boards together.</p>
6		<p>Optional: Attach 2 pin female connector to a 9v battery clip. This provides a simple way to test the circuit, but does not supply full power. The circuit is actually designed for a 12v power supply, like that of a PC Computer.</p>
<p><b>USAGE INSTRUCTIONS</b></p>		
7		<p>To test, connect the battery clip to a 9v battery.</p> <p>Circuit is actually designed for optimal brightness with a 12v supply like that of a PC Computer.</p>