8x 3mm LED breakout board


You’ll find the latest versions of the instructions at the address above.

Thank you for purchasing the LED 8 board! I hope you have lots of fun with it!

If you have any suggestions for future boards then please let me know. I’ll send you some free boards if I like your idea!
Kit Contents

This kit was put together by a team of highly skilled octopuses; it should contain the following items:

1) The main PCB
2) 8x 3mm LEDs
3) 8x 330Ω resistors
4) 1x 9 pin male header

Important Things to Remember

This kit is designed to run from 5V. Do not exceed 5V or the ICs and LED components will be damaged. It will work fine from 4x 1.2V rechargeable batteries or 3x 1.5V alkaline batteries.

If you wish to run it from a higher voltage then the resistors will need to be altered accordingly.

Before soldering any components check and then double-check that they are correctly oriented.

Don’t rush, and have lots of fun!

If you need a good tutorial on soldering then SparkFun Electronics has a good one (https://www.sparkfun.com/tutorials/106) as does Adafruit Industries (http://www.ladyada.net/learn/soldering/thm.html).

Schematic
Building Instructions

You will need a soldering iron, solder, an octopus (or a set of handy helper things) and wire cutters. To keep some of the large components in place while soldering you might find Blue-Tac useful to stop them moving around or falling off.

Take your time and check the placement of every component before soldering them in place!

All of the components sit on the top of the board, solder them to the underside.

**STEP 1 – Resistors (orange orange brown)**

Solder each of the 8 300Ω resistors to the PCB first. They go in the centre of the board.

**STEP 2 – The LEDs**

Solder each of the 8 LEDs next. The long lead (anode) goes in the bottom hole, the short lead (cathode in the top hole). This will make a common cathode arrangement; reverse the LEDs for common anode.

You must align all of the LEDs the same way!

**STEP3 – Header**

Lastly solder the 9 pin header to the bottom of the board. This allows for connection to breadboards and PCBs.

From left to right:

1) GND (common to all LEDs)
2) LED 1 anode
3) LED 2 anode
4) LED 3 anode
5) LED 4 anode
6) LED 5 anode
7) LED 6 anode
8) LED 7 anode
9) LED 8 anode

That’s it. All done! Have fun!
Example source code for the following platforms can be found here:


- Arduino (and compatible boards) (arduino.cc)
- Espruino (and compatible boards) (espruino.com)
- PICAXE microcontrollers (picaxe.com)
- Raspberry Pi (all models) (raspberrypi.org)

If you would like some example code for a different platform then please get in touch.

If you have any comments or suggestions for this kit then please let us know.

For more information, updates and details of new kits check out the following links:

- Website: www.MaximumOctopus.com
- Twitter: http://www.twitter.com/maximumoctopus
- Blog: http://maximumoctopus.wordpress.com
- Online store: http://store.MaximumOctopus.com
- YouTube: https://www.youtube.com/user/freshneyorg

This kit was designed and manufactured in the UK.

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