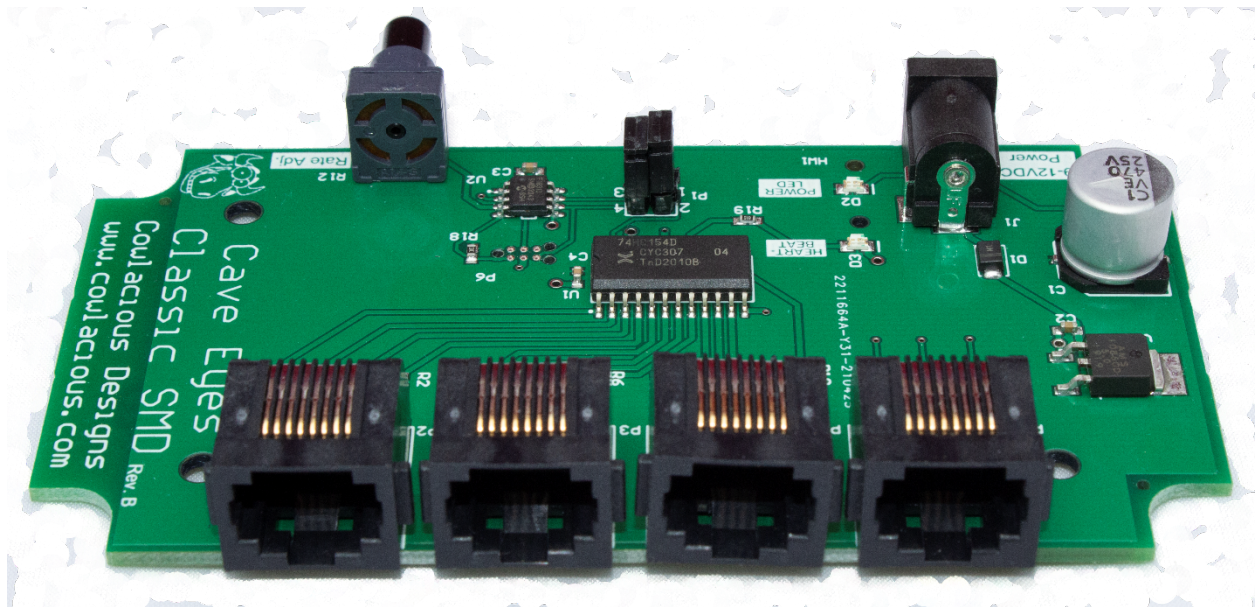


# CAVE EYES CLASSIC SMD MANUAL

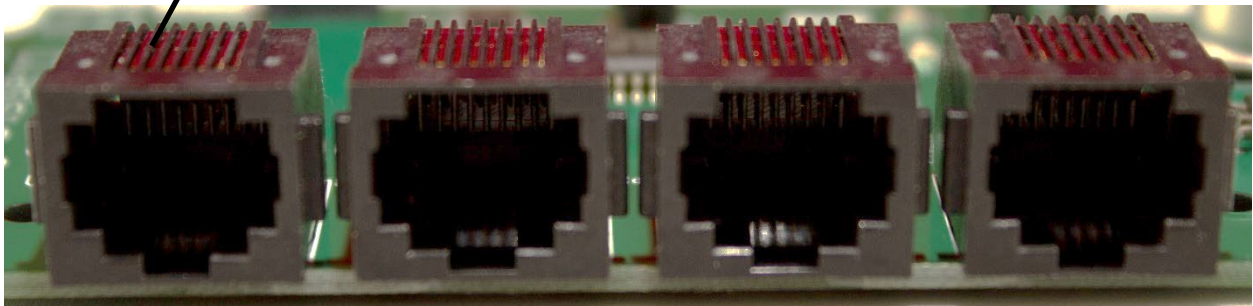
For Cave Eyes Classic SMD, Rev. B

Manual Rev. B



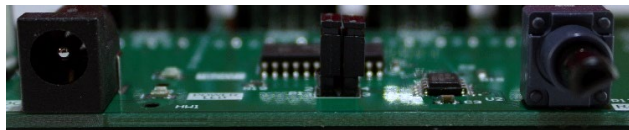
Jacks for LED harnesses.

Four harnesses (16 sets of eyes) can be connected to this unit. One set blinks, then another, and so on. One of the sixteen acts like a heartbeat for the whole system and turns off whenever one of other sets of LED Eyes turn on, so you may or may not want to use that set in your display.



Jack for power supply.

9 to 12VDC, center positive.



Speed adjust knob. Carefully adjust this knob to set the time between blinks.

Turning it counter-clockwise makes the time between blinks longer.

Turning it clockwise makes the time between blinks shorter.

This PCBA is designed to fit a Hammond 1591XXBFL case.

Sorry, but Cowlacious designs does not provide a milled case for this board at this time. This PCBA is designed to fit a Hammond 1591XXBFL case (DigiKey part# HM2025-ND), though holes would needed to

be milled in it for the LED jacks, rate adjust POT, and the power jack. Also, the board is designed to bring the LED's light out of the case with a light pipe, 7511A62 (DigiKey part# L70520-ND). Both are available from [www.DigiKey.com](http://www.DigiKey.com). For more specifics on hole locations etc. please contact [support@cowlacious.com](mailto:support@cowlacious.com).

## Making Your Own LED Harness

If you plan to make your own harnesses, use CAT-5 networking cables. Either buy twice the length you need and cut them in half or cut them whatever length you want them. You can also buy the length you want and cut the connector off one end. Then peel back the outer casing that is around the eight network wires inside of the cable. Strip back  $\frac{1}{4}$  inch of insulation off each set of wires. There should be four pairs of wires: white/orange and orange/white, white/blue and blue/white, white/green and green/white, and white/brown and brown/white. For the rest of this document we are going to be working with the white/orange and orange white, but the steps must be repeated for the other sets of wires.

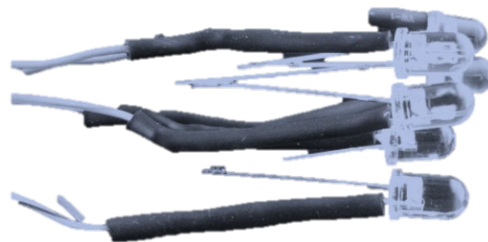
Divide the LEDs into 4 set of two. With each pair, solder together, at the tips, the long wire of one LED with the short wire of the second LED. The long lead is the positive and the short lead is the negative, so we are wiring them in series with each other.

Place 1-1/4 inch of .12 inch (3mm) diameter heat shrink tubing onto each wire of one of the sets of wires. One on the white/orange and one on the orange/white. The wires should be unwrapped enough to allow the stripped part of the wire to be sticking up and out of the heat shrink tubing.

Wrap the stripped part of the white/orange wire around the remaining long lead of one of the LED pairs. Wrap the stripped part of the orange/white wire around the remaining short lead of the same LED pair. The mostly white/orange wire is the positive wire and the orange/white wire is the negative. Solder the wires to LED leads.

Slide the heat shrink tubing up to the base of the LED on both wires and shrink it around the leads using the heat source of your choice. We use a craft heat gun, but we've seen done with a lighter, a match, a hot soldering iron etc.

Repeat the above steps for each of the wire pairs in the harness.



Thank you for purchasing a Cowlacious Designs product!



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