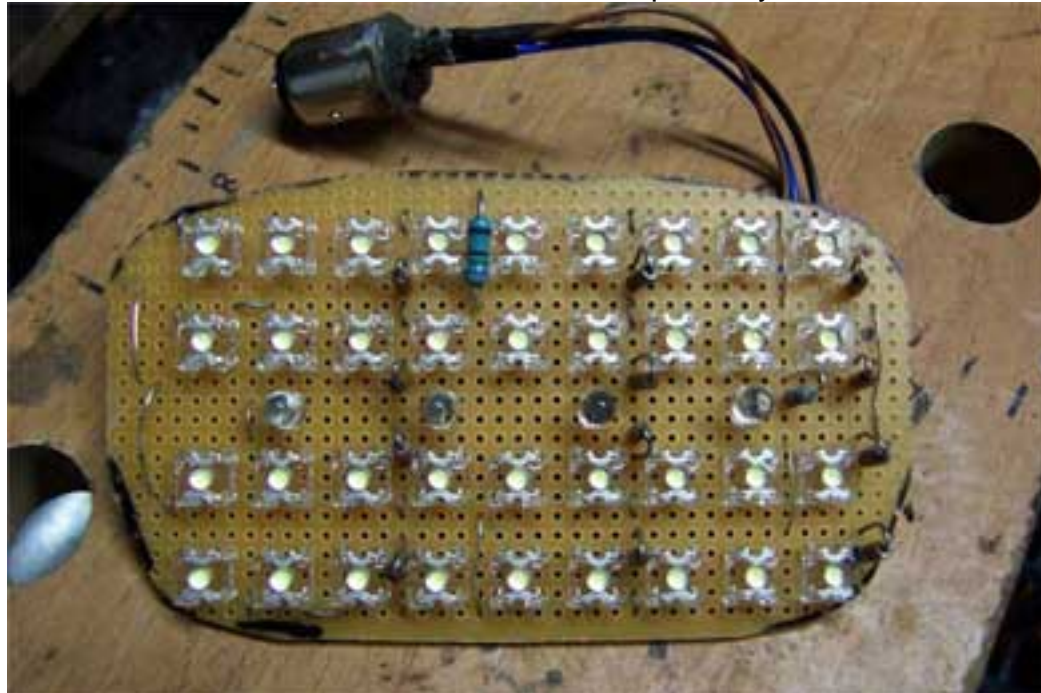


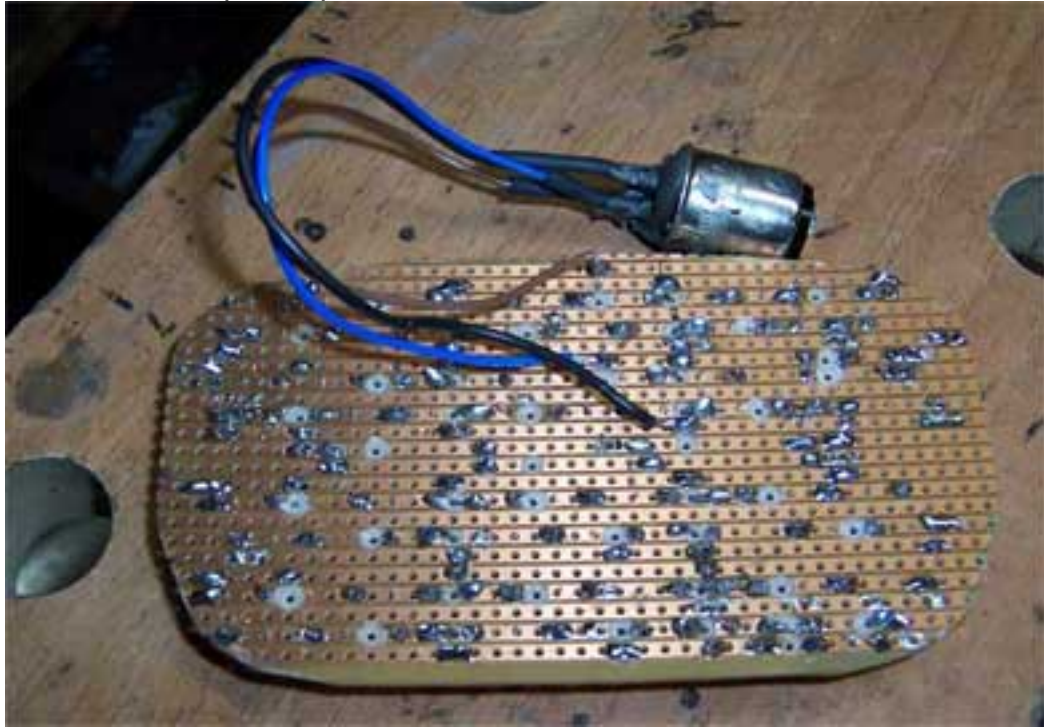
The resistors for each module are 22 ohm $\frac{1}{8}$ watt. The tail light circuit is supplied via a 75 ohm $\frac{1}{2}$ watt resistor, dimming the LEDs to normal brightness. The stop light by-passes this resistor illuminating the LEDs at full brightness. I have chosen to run the LEDs at 95mA for maximum brightness. This is only 5mA less than their rated maximum but since the brakes are not usually on for prolonged periods I don't expect premature failures.

I connected the wires from the panel to an old light bulb base to make the connections using the light socket, embedding them in Plastic Padding.

This a view of the completed panel I shaped it to fit the shape of the reflector but a rectangular bit of Veroboard at 60mm X 110mm would probably have done.



The rear view of the completed panel.



The completed panel mounted in the tail light. Currently held in place with sticky tape but Bluetack has been suggested as a means of securing it.



Tail light illuminated only.



Stop light on – Maximum brightness



This note added to Derek's original document in his cover email:

"As for the conversion. I used stripboard and covered it with an array of Superflux LEDs. I used these because of their very wide 90 deg viewing angle although they only have a brightness of 6,500mcd, which is still pretty bright.

I've since found some 15,000 Red LEDs (now that is bright). They have a viewing angle of only 20 deg but I reckon that should be OK. I fancy mounting them on a a piece of acrylic so that the small amount of light that is emitted to the rear is reflected back adding to the effect. I found suitable LEDs at sensible prices from <http://www.goodwillsales.com/> who also sell on eBay. Although it might be cheaper (and quicker) to source them from a supplier in your part of the world.

Good luck and let me know how you get on."

(I have seen these type of LED's available cheaply at the local Dick Smiths chain of stores.)

Original Author: Derek, as published here: <http://www.st4s.com/cgi-bin/discus/show.cgi?15/936>