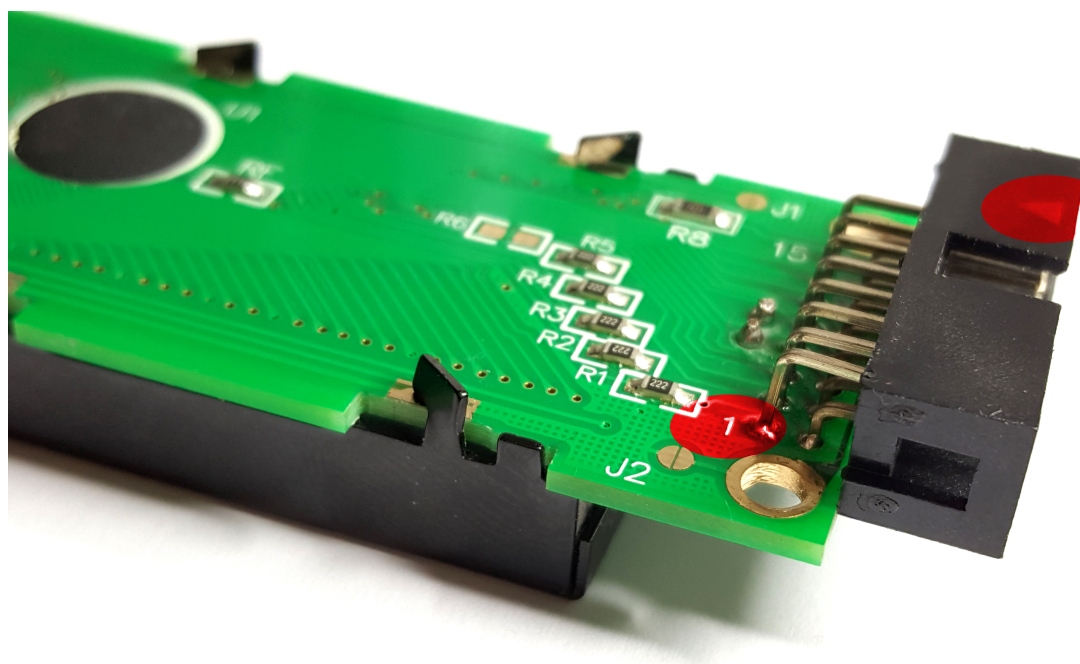# A Massive Gotchya

Mar 2017

Regarding the 40x2 LCD

I used a 40×2 LCD display with a 16 pin header on one end. This project will work with almost any HD44780 or compatible display, you just need to adjust the pin outs.

Below is a picture of the connector, and you can see where pin 1 is written on the PCB. When I tested the LCD (before I had any PCBs made) I used jumper cables, and put the correct pin (using Pin 1 on the LCD PCB as a reference) and all worked fine. (When I say I used Pin 1 on the LCD PCB I mean the white number 1 on the board.

So please thoroughly check any hardware you are thinking of using.

However, it can be clearly seen that the pin 1 reference on the PCB Header (the triangle) is not aligned to Pin 1 on the PCB. Pin 1 actually goes to Pin 15. This is probably because if you mount the connector on the correct side of the board for the Pin 1's to line up, the connector would be on the same side as the LCD, and the whole thing would be useless. So the result is that due to a design error in making the PCB, they had to fudge the connector to the PCB.

This meant that when I made my ribbon cable, nothing worked. There was a very simple fix for this however (luckily) we replicated the LDC error (inverted 16 way header) on our driver board (put our 16 way header on the opposite side of the PCB) and it all worked, lucky but very frustrating.