Subject: Re: DSKY V3?

Posted by danwerner on Sat, 17 Apr 2021 22:05:36 GMT

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It would not be impossible to add in a way for the DSKY to be auto detected. . . . There are two open input pins on the 74LS148(u2) decoder that is used to scan the keyboard matrix. Today they are both tied to low, BUT . . . If we tied them to the LED output from the 74LS138(U1), you could toggle that output and then look for a corresponding input from the row decoder. Seems like a pretty simple change.

I do have the PCBs in and am building up a prototype now. I think for the next run I want to make three changes . . .

- #1 I currently had five of the max7219 seven segment modules in stock, and I noticed when building that there are at least three different pinouts of those modules. So I think a jumper block would be appropriate so that almost any of the cheap pre-made modules will work.
- #2 Seems like there should be a connector on the new DSKY that is compatible with the old SBC without making a custom cable. The new DSKY only needs 8 bits (4 in/4 out) and the new connector was designed to reflect this, but it might also be good to have the original connector on the board as well. I think a pass through connector would also be useful so that the rest of the ports can be used by other hardware.
- #3 Wire up the LED output to the bit 6 and 7 inputs of the decoder to allow hardware detection