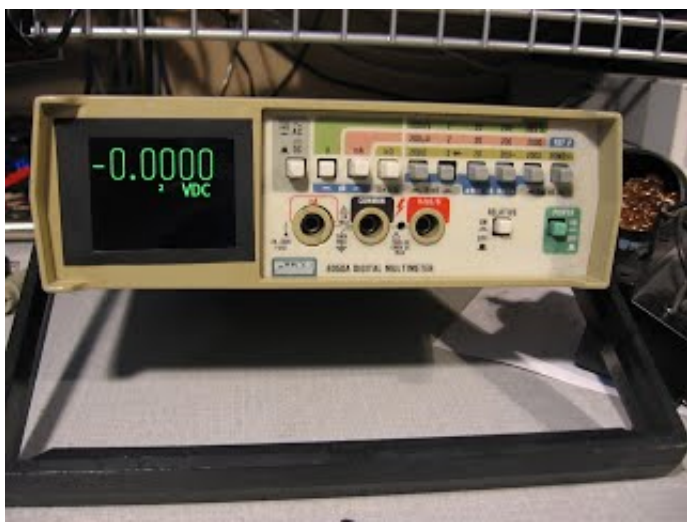


Fluke8050A Hi Res Display

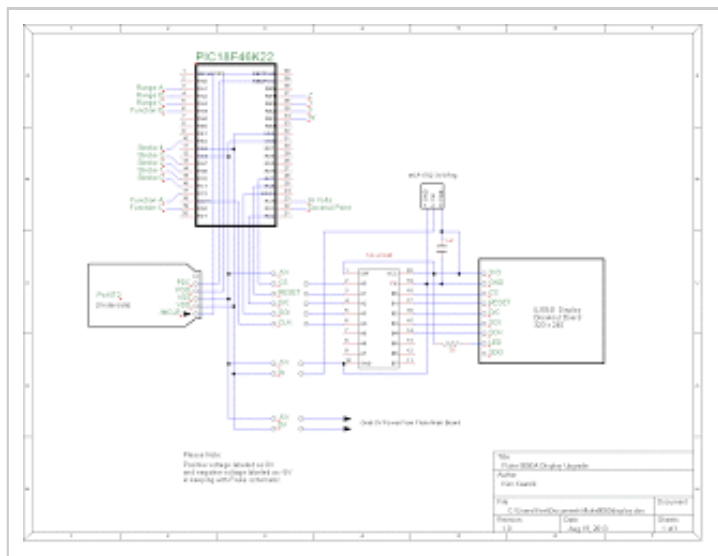
Intro

I have acquired a number of old Fluke 8050a bench meters, Curse you EEVblog and EBay. I wanted to upgrade the display from the original LCD display to something that would look cool sitting on my bench. Here is a project that showed how good the meter would look with an LED upgrade. <http://lous.home.xs4all.nl/fluke/Fluke8050Asite.html>

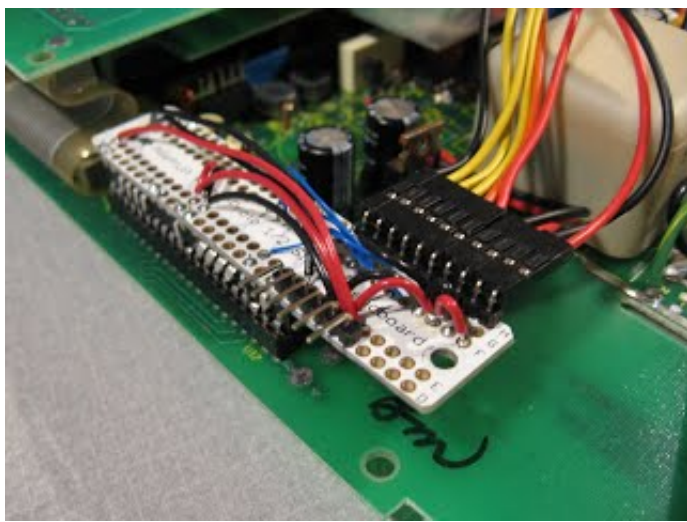
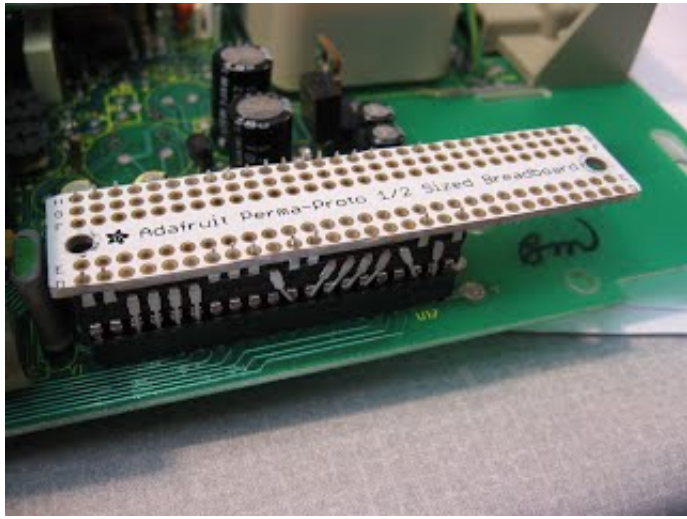
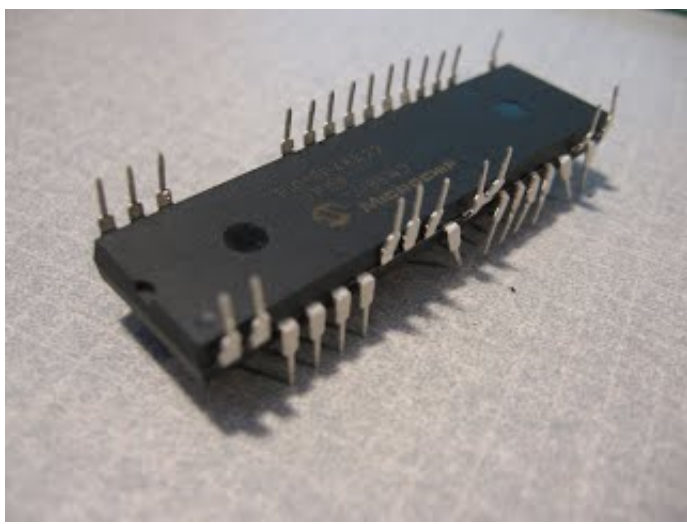
My project uses a microcontroller that reads the info from the Fluke 8050A and displays it on a cheap 2.2" 320x240 lcd display. The display is an SPI controlled ILI9341 display available on EBay for less than \$7. A bigger display won't fit. I chose to use a PIC18F46K22 as the micro. It has enough pins, operates at 5V, runs fast (64 MHz), and available from Digikey.



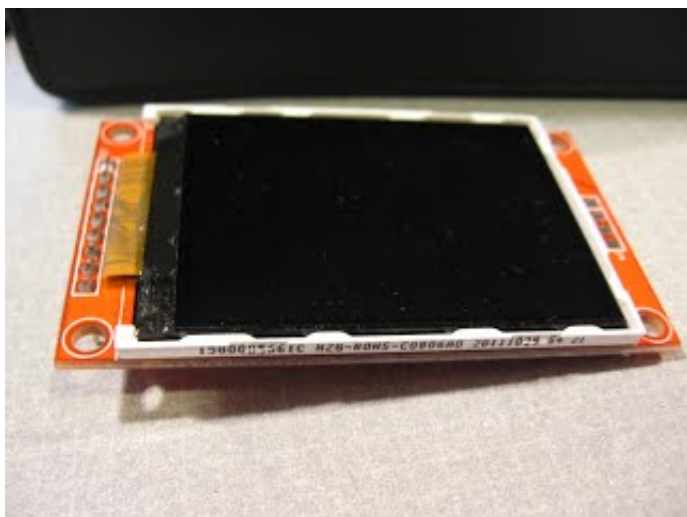
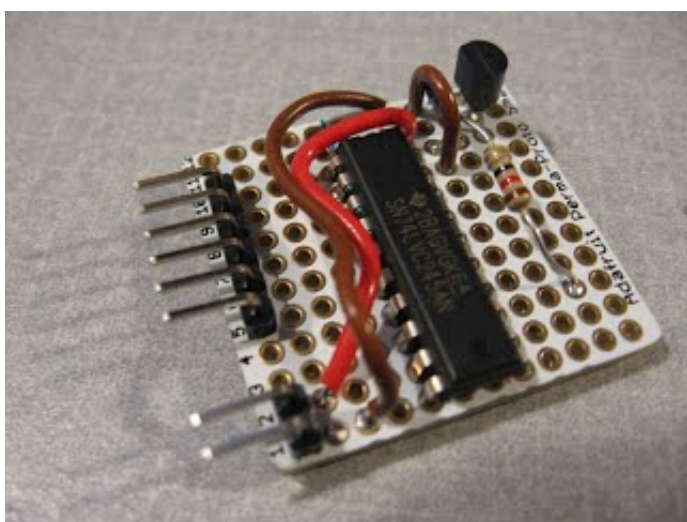
Construction



All of the points that I wish to access are available directly on the main 40 pin DIP processor of the FLUKE 8050A. I simply piggy backed the PIC18F46K22 on to the 40 pin DIP, some pins had to be angled. The pins that weren't connecting to the Fluke were bent up to be soldered on to a proto board.

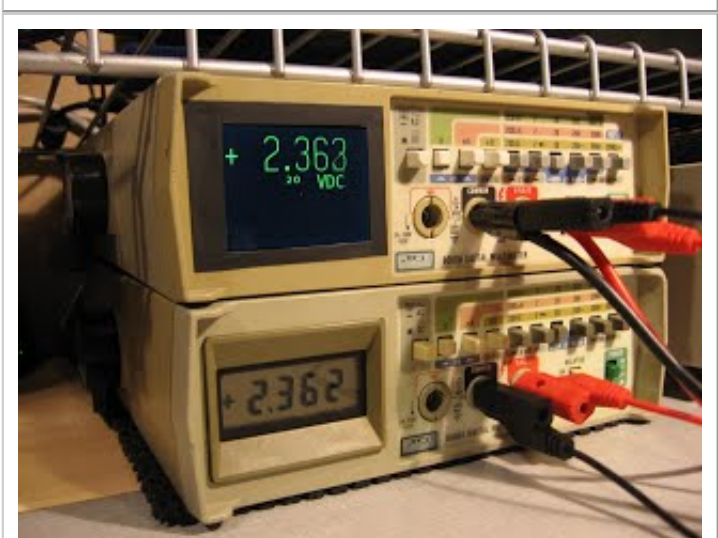


Assembled board. I have the level converter for the lcd screen mounted on a different proto board. This board mounts directly to display.

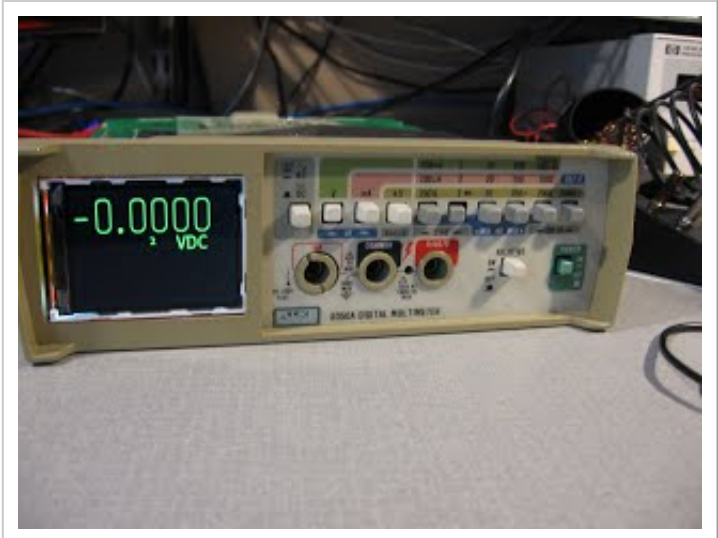


Picture of display I used before I carefully lifted screen from breakout board so I could trim off board so it would fit in

the Fluke's display opening. I also took the dremmel to the sd card holder as well as a little bit of the Fluke display board.



Picture of next victim awaiting facelift.



The Bezel is just a sticker that has been trimmed to cover the gaps.

Improvements

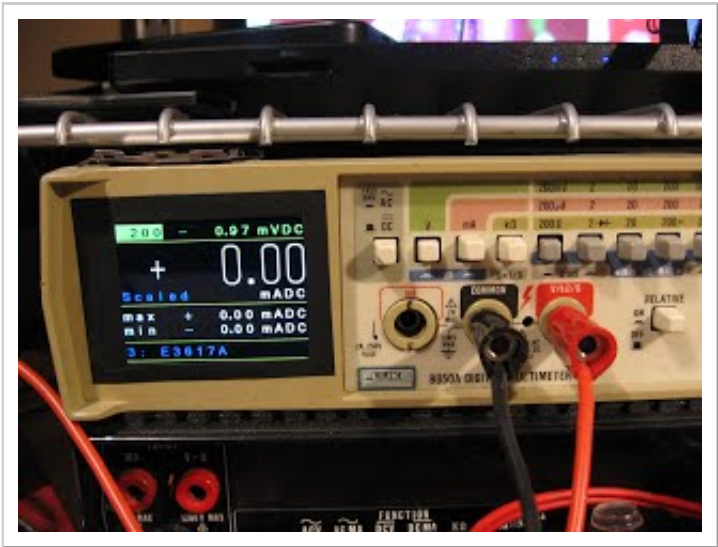
Stuff I'd like to add:

- Wireless
- Scaled readings
- Bar graph
- Histogram
- Use a display with touch

Code

The code could be organized better. I just put all my source code in one big file instead of creating separate font files for example. Feel free to use any way you see fit!

Added Scaled Readings (Oct 2015)



Added a scaled mode, min max mode - if meter starts up in Volts mode reading will be scaled to indicate Amps (connected to my Agilent E3617A). Also added settings for the other power supplies I've acquired (E3610A - requires connection to sense resistor inside PS , E3614A). Cycle through modes by holding 20M button. Source code is file dated 17 Oct 2015, needs to be cleaned up but I haven't played with it for 2 years and I had a request for it.

Č

Č	fluke8050a_ili9341.zip (1	Ken Kaarvik, 19 Aug 2013	v.1	d'
Č	fluke8050a_ili9341_pic...	Ken Kaarvik, 17 Oct 2015	v.1	d'
Č	fluke8050a_ili9341_pic...	Ken Kaarvik, 17 Oct 2015	v.1	d'
Č	font.inc (165k)	Ken Kaarvik, 17 Oct 2015	v.1	d'

评论

您没有权限添加评论。