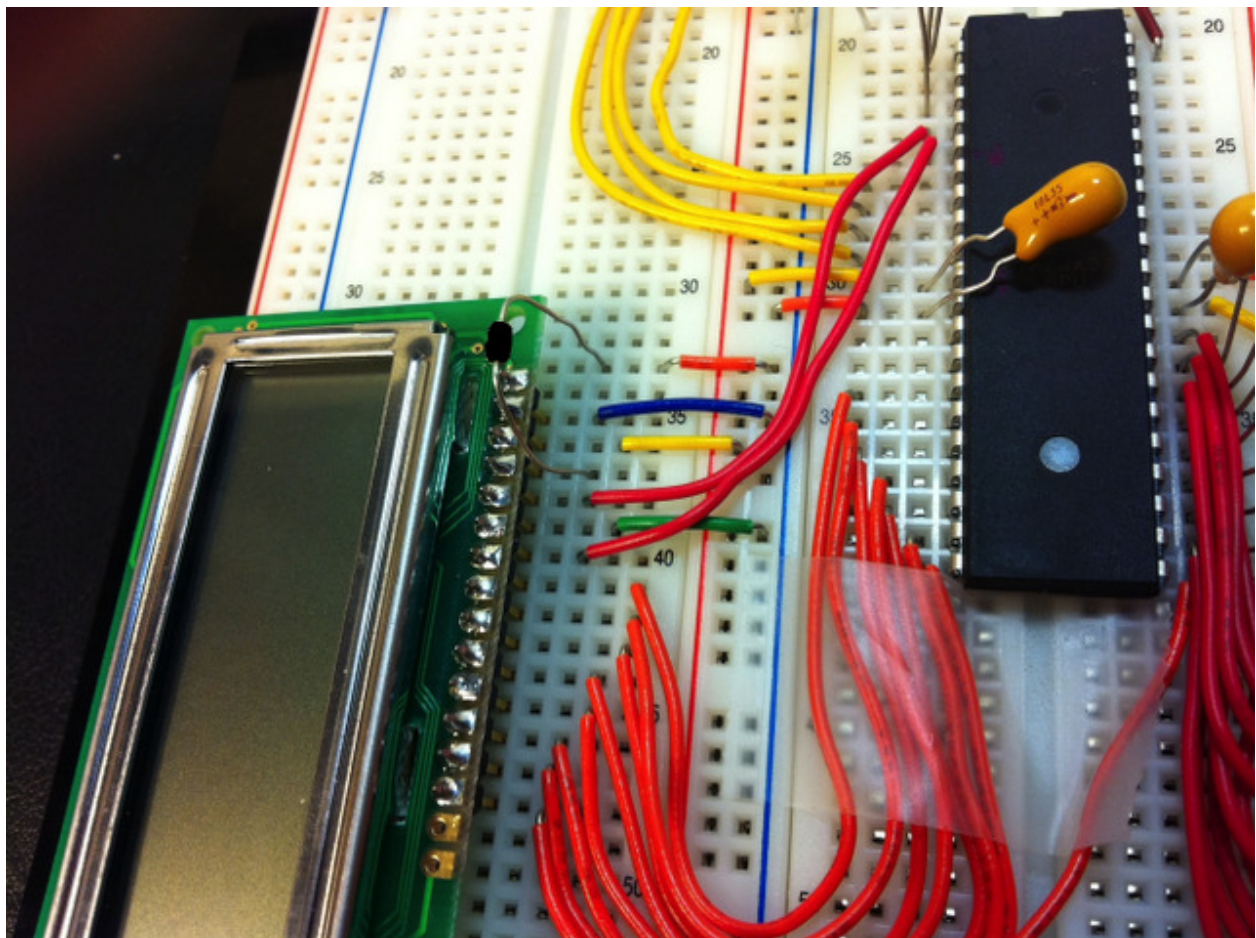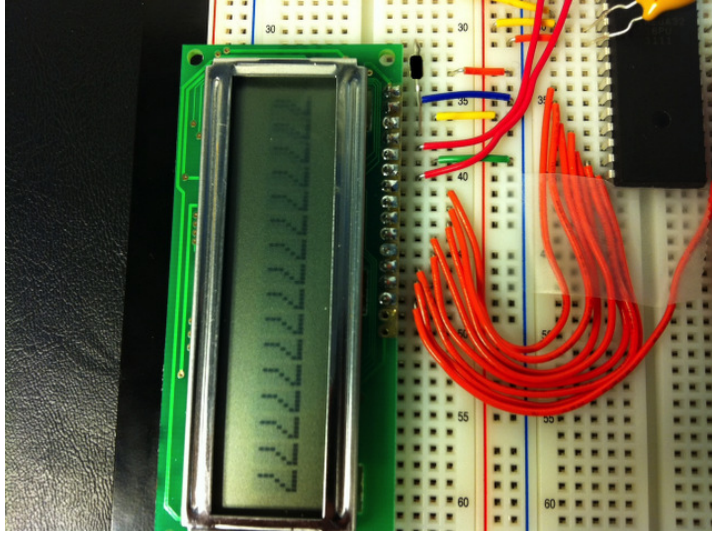Resistor is 10 kΩ (can be replaced with a 10 kΩ potentiometer).
Figure 6: Functional LCD

LCD Display Pin Connections

LCD PIN #	1	2	3	4`	5	6	7-14	15-16
Connection	GND	5 Volts	Potentiometer (10KΩ) thru. to GND	AVR PORT D6	GND	AVR PORT D7	AVR PORT C0-C7	Vcc-GND

Knowing the current state of your program when testing is a critical debugging tool. A useful way to debug your program is to write the current state of your synchSM onto LEDs attached to an unused port. This approach gives you a visual representation of where your synchSM is at any given point.

Video Demonstration: http://youtu.be/cRNJc6lhcKs

Video Demonstration: http://youtu.be/r8yzRMPD3lE