## Assembly Instructions of the ProtoShield from Sparkfun.com

Detailed instructions and pictures can be found at: <a href="http://www.atomicsalad.com/archive/2007/03/11/tutorial">http://www.atomicsalad.com/archive/2007/03/11/tutorial</a> sparkfun protoshield assembly use.php

We will have a place in the lab where you can do this soldering work. Best to get it out of the way when you get the materials back from Sparkfun.

## **Assembly Steps**

- 1. Solder the 10k resistor in the location labeled 10k. Solder the 330 ohm resistors in 330 ohm locations. Trim the excess leads on the back of the board after soldering
- 2. Solder the capacitors in the 2 rectangles (1 between RST label and 330 ohm resistors, other near 5V label between REF and JC1 labels). Trim the excess leads of the capacitors on the back of the board
- 3. Place and solder the LEDs in the large silk-screened circles (short lead is the cathode and this matches the flat side of the circle that is silk-screened on the board). Use tape if desired to hold LED in place while soldering. Trim the excess leads of the LEDs on the back of the board as close to the board as possible
- 4. Place and solder the 2 switches in silk-screened boxes labeled Reset and S2 (orientation doesn't matter as long as they fit properly in the correct holes)
- 5. Place and solder the 4 sets of female connectors on the outer columns
  - a. 8 pin female connectors are for digital pins on right side of board
  - b. 6 pin female connectors are for power and analog pins on left side
- 6. Insulate the leads of S2 with some electrical tape so they don't short when the protoshield is connected to the Arduino board
- 7. Remove the backing from the solderless breadboard and attach it to the center of the protoshield