**Overview**

I’m not going to include my detailed diagram as it’s not overly complicated and you should decide what is best for your situation. I’ll include which pins I attach pieces to the Arduino with and explain my design choices when I think it would be helpful for you.

**Wiring the LCD**

Part I used: <http://adafruit.com/products/499>

I’d direct you to this tutorial for wiring the LCD up: <http://learn.adafruit.com/character-lcds/wiring-a-character-lcd>. I used pins D7 through D12, just as the tutorial code does here: <http://learn.adafruit.com/character-lcds/using-a-character-lcd>. For the backlight control I use the same pins (red -> D3, green -> D5, blue -> D6) as the tutorial here: <http://learn.adafruit.com/character-lcds/rgb-backlit-lcds>.

**Wiring the Buttons**

Part I used: <https://www.sparkfun.com/products/8605> (x3)

I opted to use a simple push button here. I choose the tall one because I want to build a case and have the button mounted on the inside sticking out through holes drilled in the front panel. I connected them to pin A3 through A5 using the internal pullup resistors.

**Wiring the Liquid Flow Sensors**

Part I used: <http://adafruit.com/products/828> (x2)

In hindsight I would have opted for different flow sensors but I’m trying to work with what I’ve got. The sensors are attached to pins D2 and D4. This is where I’ll share a design choice of mine. In order to keep a majority of the electronics outside the refrigerator I used a sensor pod inspired by the Kegbot Project (<http://kegbot.org/>). The two flow sensors and the temperature sensor are attached to a 1” by 1” prototype board which is in turn connected to the Arduino Uno via an Ethernet cable: 8 wires in one cable and easily detachable. This will let you easily swap out the pod should a liquid happen to ruin it. I would still recommend attempting to cover it in plastic/tape.

**Wiring the Temperature Sensor**

Part I used: <http://adafruit.com/products/374>

To see how the sensor needs to be wired consult this page: <http://bildr.org/2011/07/ds18b20-arduino/>. I have my sensor connected to pin A0. Also, because the sensor is inside the refrigerator it is soldered onto the pod mentioned above.