SEN-HZ21WA Flowmeter

Technical Manual Rev 2r0

SEN-HZ21WA Flowmeter can be used to accurately measure liquid volume and rate of flow flowing through it. It outputs digital pulses at a frequency in proportion to the rate of flow. Accumulated number of pulses, on the other hand, gives an accurate measure of the liquid volume. Compatible in all gizDuino boards and MCUs.

General Specifications:

Input supply voltage: 4.5 - 18VDC
Operation Pressure: 1.75MPA Maximum
Flow Rate: 1 - 30 LPM
Output: 5V logic

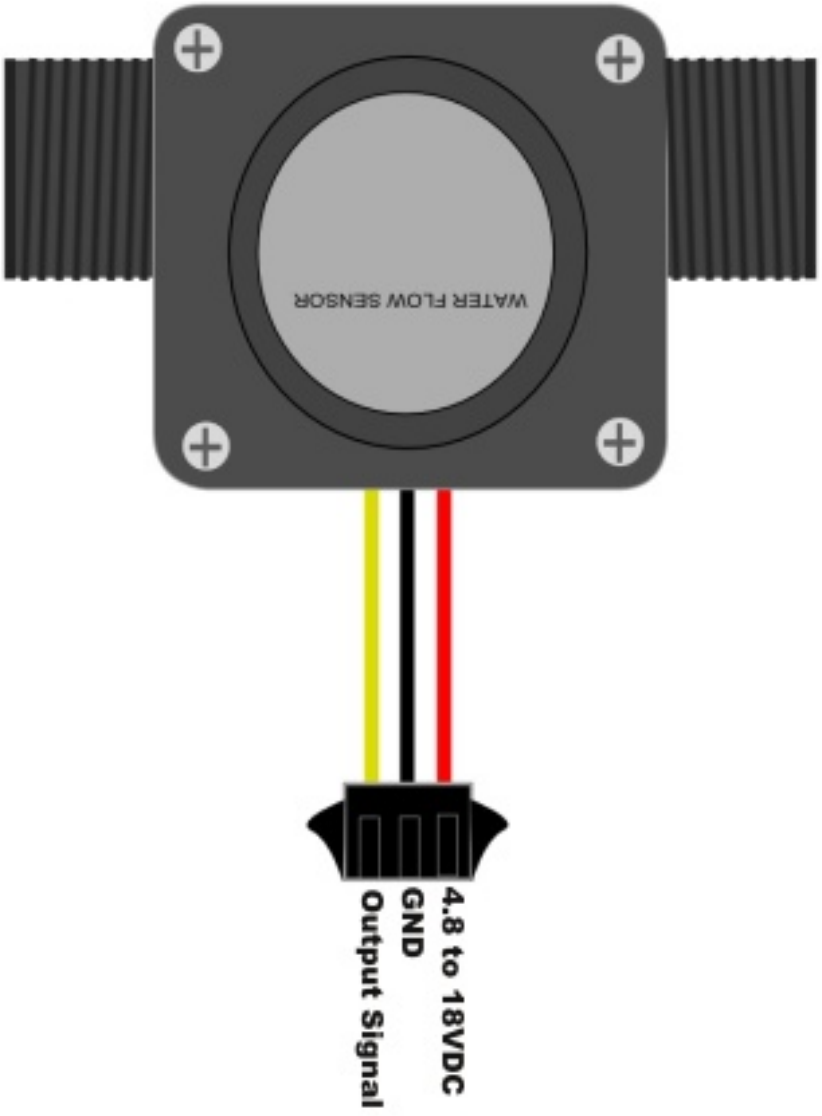

Figure 1: SEN-HZ21WA Flowmeter

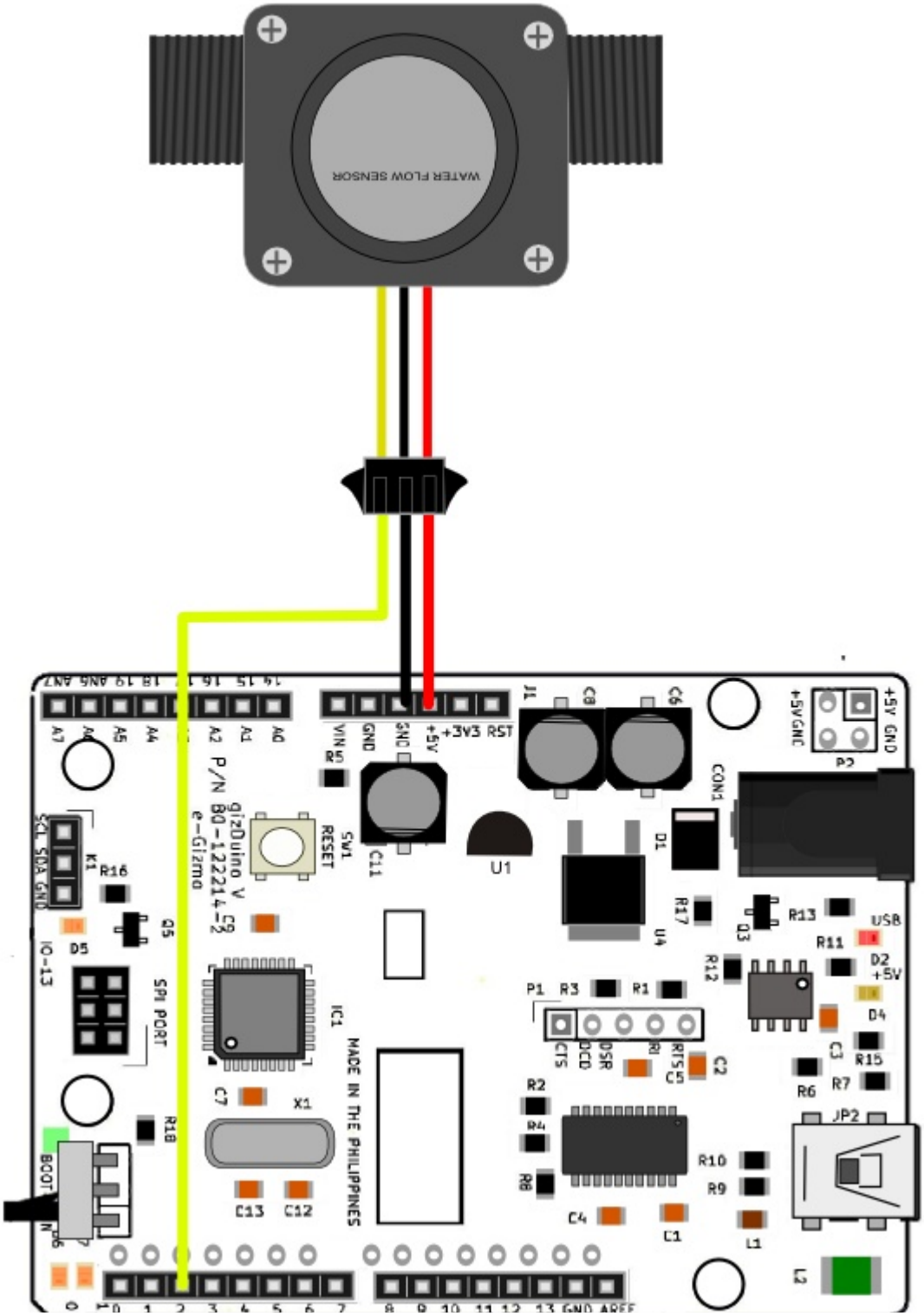

Figure 2. Sample Applications

```
/*

 e-Gizmo SEN-HZ21WA Flowmeter
 Sample Codes

 Reads the Digital Output on pin 5 and prints the result to
 the serial monitor.

 by
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 November 26, 2014
 http://www.e-gizmo.com

 */
int FLOW_PIN = 2;
double FLOW_RATE;
volatile int COUNT;

// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits per second:
  Serial.begin(9600);
   pinMode(FLOW_PIN, INPUT);
  attachInterrupt(0, FLOW, RISING);
}

// the loop routine runs over and over again forever:
void loop() {
  COUNT = 0;      // Reset the counter
  interrupts();   //Enables interrupts on the Arduino
  delay (1000);   //Wait 1 second
  noInterrupts(); //Disable the interrupts on the Arduino

  //Start the math
  FLOW_RATE = (COUNT * 2.25);        //Take counted pulses in the last second and multiply by 2.25mL
  FLOW_RATE = FLOW_RATE * 60;         //Convert seconds to minutes, giving you mL / Minute
  FLOW_RATE = FLOW_RATE / 1000;       //Convert mL to Liters, giving you Liters / Minute

  Serial.println(FLOW_RATE);         //Print the variable flowRate to Serial
}
void FLOW()
{
   COUNT++; //Every time this function is called, increment "count" by 1
}
```