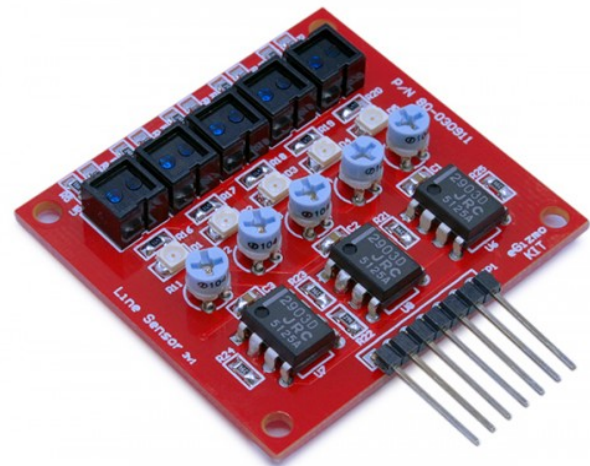


3 & 5 Channel Line Sensor

Technical Manual Rev 1r0



3 Channel Line sensor



5 Channel Line sensor

It is designed for Mobile Robot line tracking applications, in 3 or 5 IR (Infrared) reflective sensors CNY70 will reliably detect dark lines printed over light color surface. Detection distance > 10mm from sensor face is possible. Adjustable sensitivity for each sensors. Compatible in all gizDuino / Arduino / Microcontroller boards.

General Specifications:

Input Supply Voltage: +5VDC
Outputs: Digital
Sensor: CNY70
Sensing distance: distance > 10 mm
Dimensions: 44.5mm x 48.5 mm

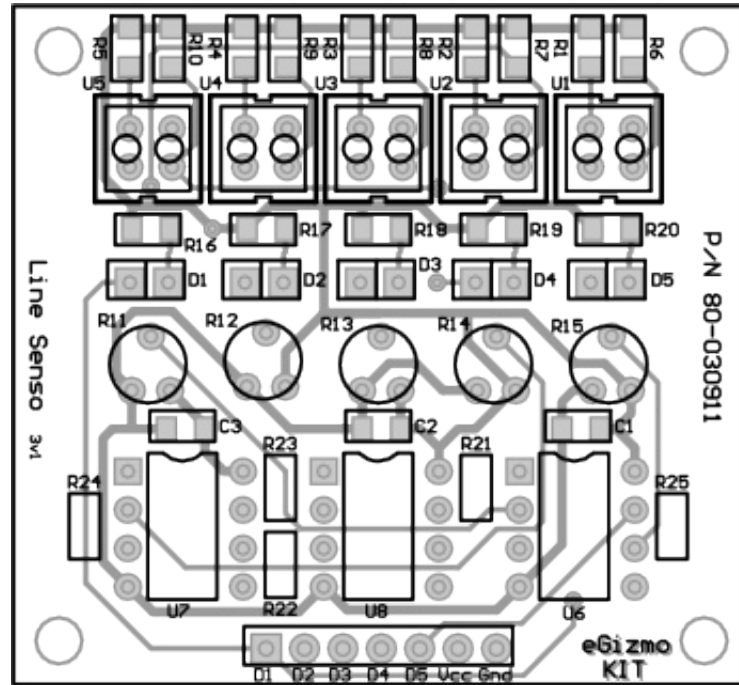


Figure 1. PCB Top Layer Guide

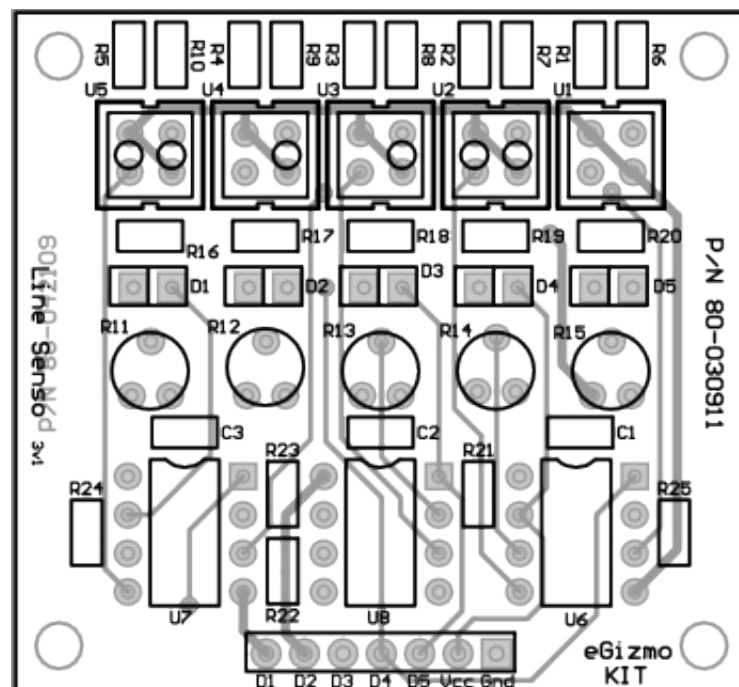


Figure 2. PCB Bottom Layer Guide

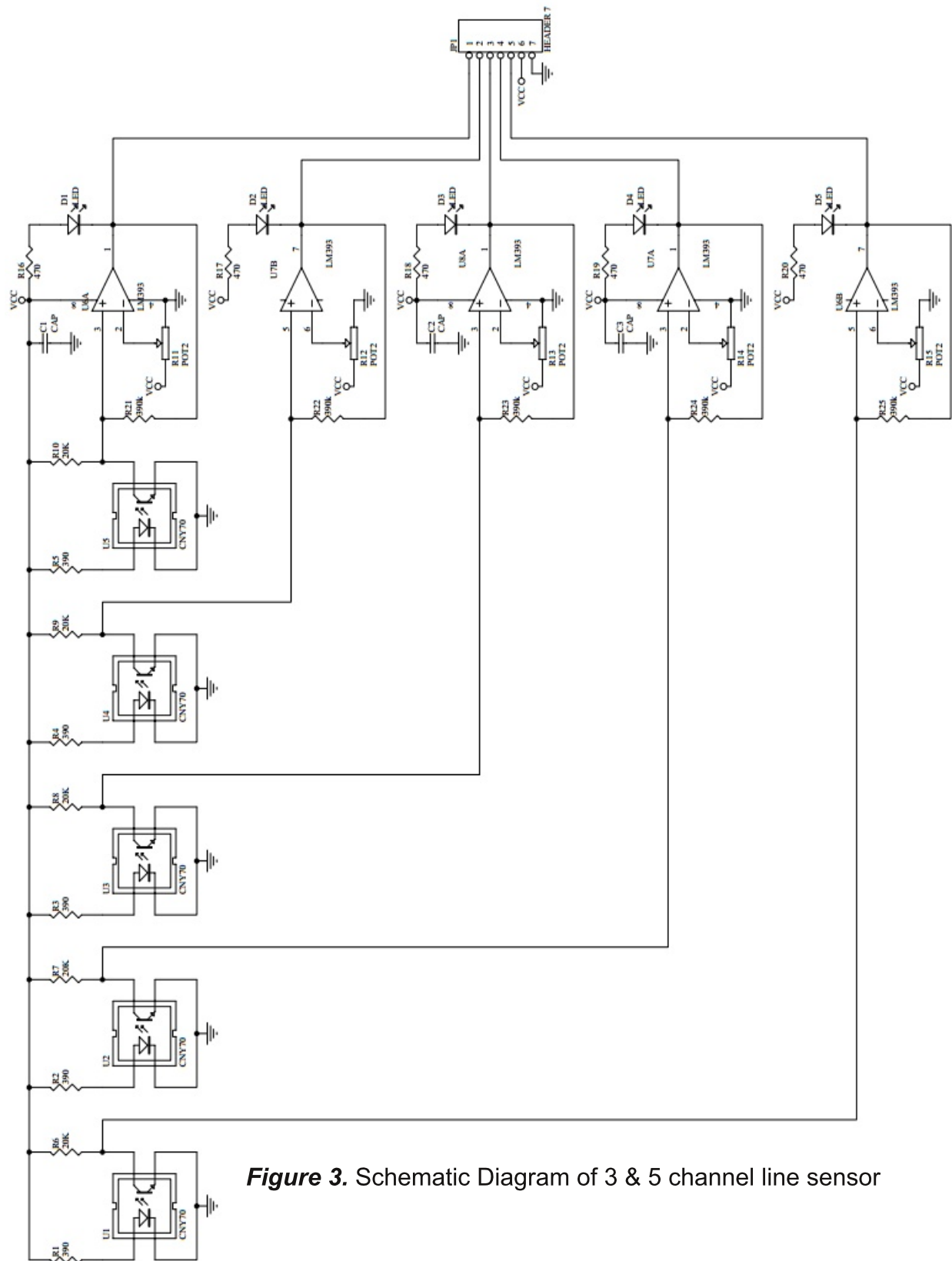


Figure 3. Schematic Diagram of 3 & 5 channel line sensor

Wiring connections

gizDuino	3-Channel Line sensor
+5V	-----> +5V
GND	-----> GND
PIN 7	-----> D5
PIN 6	-----> D3
PIN 5	-----> D1

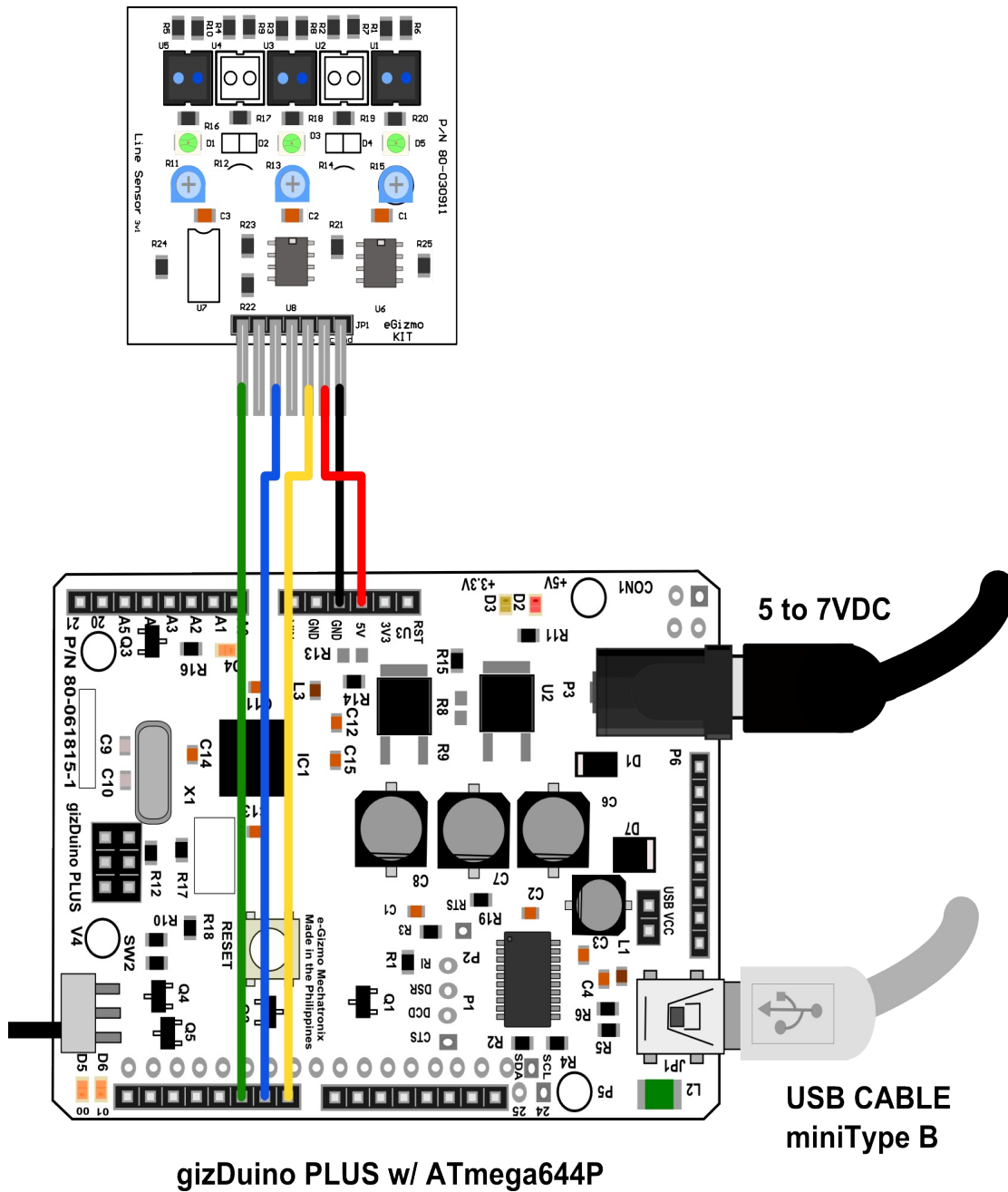


Figure 4. Sample connections

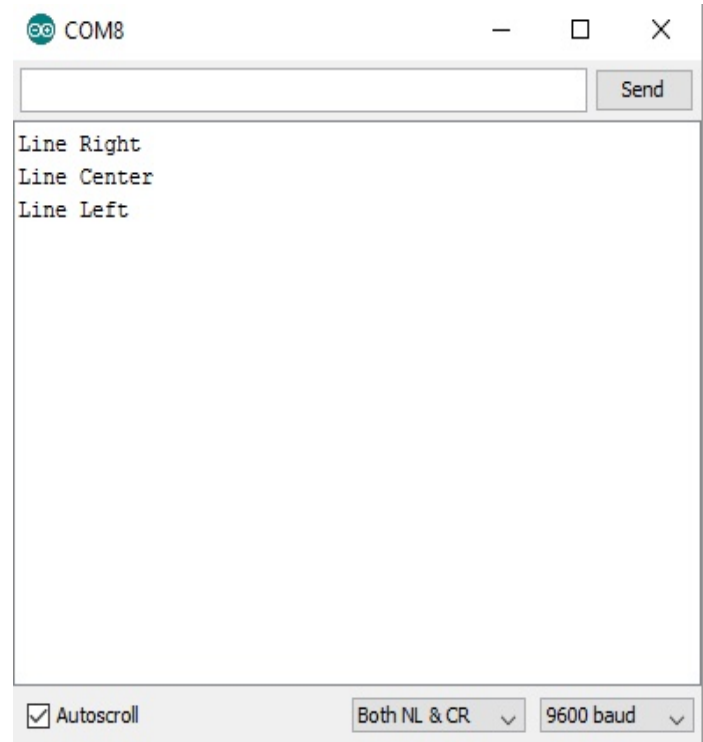
Upload this code to the gizDuino PLUS Microcontroller.
then Open the Serial Monitor.

```
//The codes of Collision sensor
int line1;
int line2;
int line3;

void setup()
{
  Serial.begin(9600);

  pinMode(5, INPUT);
  pinMode(6, INPUT);
  pinMode(7, INPUT);
}
void loop()
{
  line1 = digitalRead(5);
  line2 = digitalRead(6);
  line3 = digitalRead(7);

  if(line1 == 0)
  {
    Serial.println("Line Right");
  }
  if(line2 == 0)
  {
    Serial.println("Line Center");
  }
  if(line3 == 0)
  {
    Serial.println("Line Left");
  }
}
```



Wiring connections

gizDuino	5-Channel Line sensor
+5V	-----> +5V
GND	-----> GND
PIN 7	-----> D5
PIN 6	-----> D4
PIN 5	-----> D3
PIN 4	-----> D2
PIN 3	-----> D1

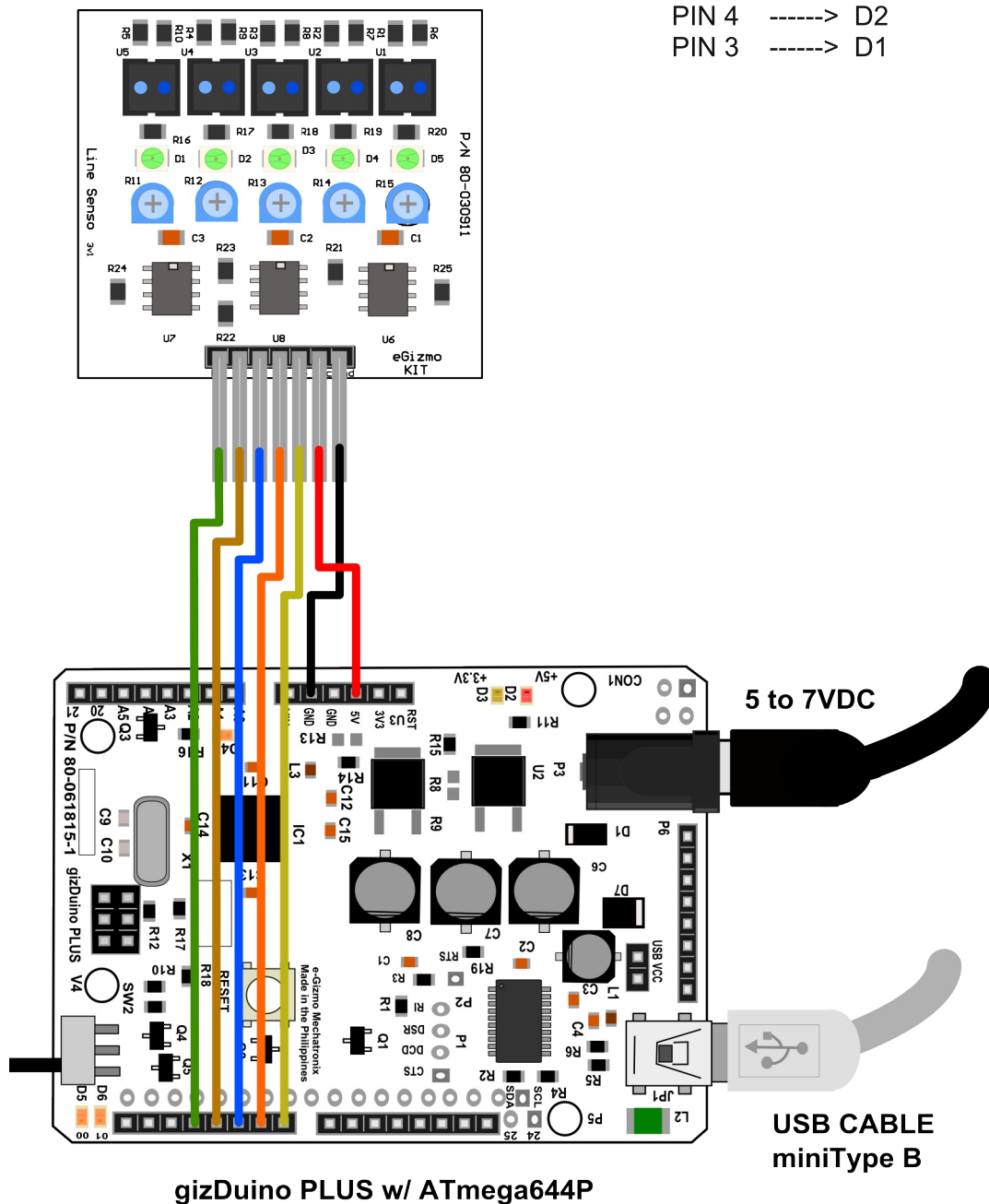


Figure 5. Sample connections

Upload this code to the gizDuino PLUS Microcontroller.
then Open the Serial Monitor.

```
//The codes of Collision sensor
```

```
int line1;  
int line2;  
int line3;  
int line4;  
int line5;  
  
void setup()  
{  
  Serial.begin(9600);  
  
  pinMode(3, INPUT);  
  pinMode(4, INPUT);  
  pinMode(5, INPUT);  
  pinMode(6, INPUT);  
  pinMode(7, INPUT);  
}  
void loop()  
{  
  line1 = digitalRead(3);  
  line2 = digitalRead(4);  
  line3 = digitalRead(5);  
  line4 = digitalRead(6);  
  line5 = digitalRead(7);  
  
  if(line1 == 0)  
  {  
    Serial.println("D1");  
  }  
  if(line2 == 0)  
  {  
    Serial.println("D2");  
  }  
  if(line3 == 0)  
  {  
    Serial.println("D3");  
  }  
  if(line4 == 0)  
  {  
    Serial.println("D4");  
  }  
  if(line5 == 0)  
  {  
    Serial.println("D5");  
  }  
}
```

