Light & Dark sensor

Technical Manual Rev 1r0

The e-Gizmo Light & Dark sensor for simple automatic light switch to your project. The 2-in-1 board on its 2 functions (light & dark) with the DPDT switch and adjustable sensitivity. With Digital output pin connection.

General Specifications:

Input Supply Voltage: +5VDC
Outputs: Digital
Sensor: LDR
On board IC: LM358
Dimensions: 26mm x 25mm

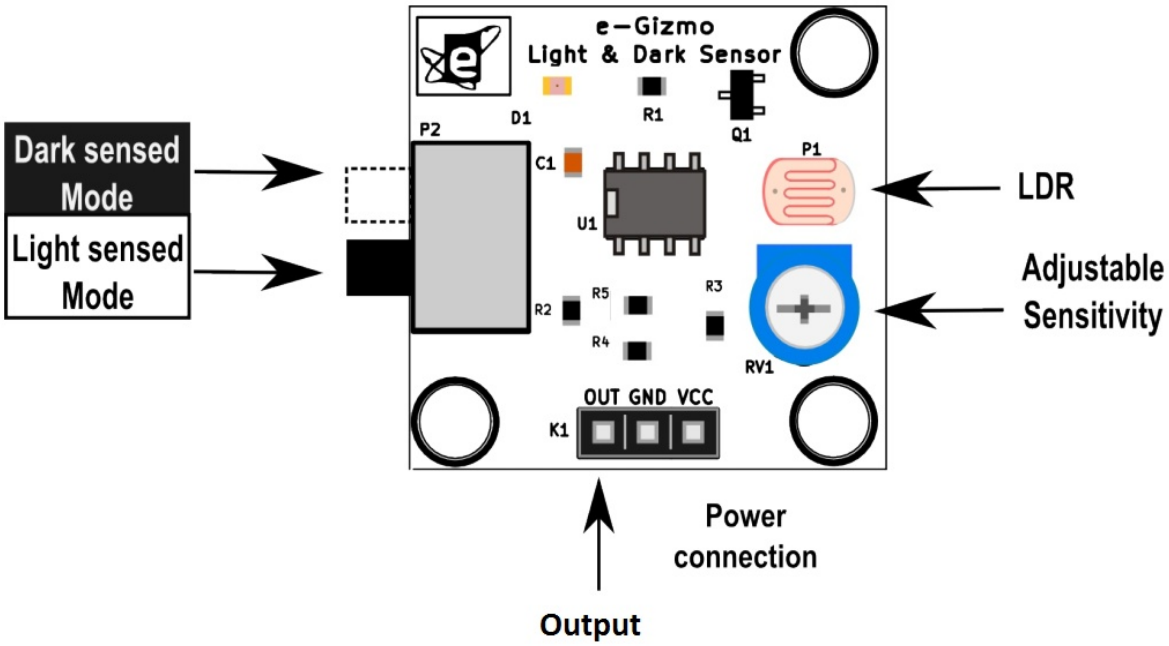

Figure 1. Major parts presentation of e-Gizmo Light and Dark sensor

Table 1. K1 connections and descriptions

PIN Name	**Descriptions**
VCC	+5V DC Supply Input
GND	Ground connection
OUT	Digital Output connection

Table 2. RV1 connections and descriptions

PIN Name	**Descriptions**
RV1	For sensitivity calibration

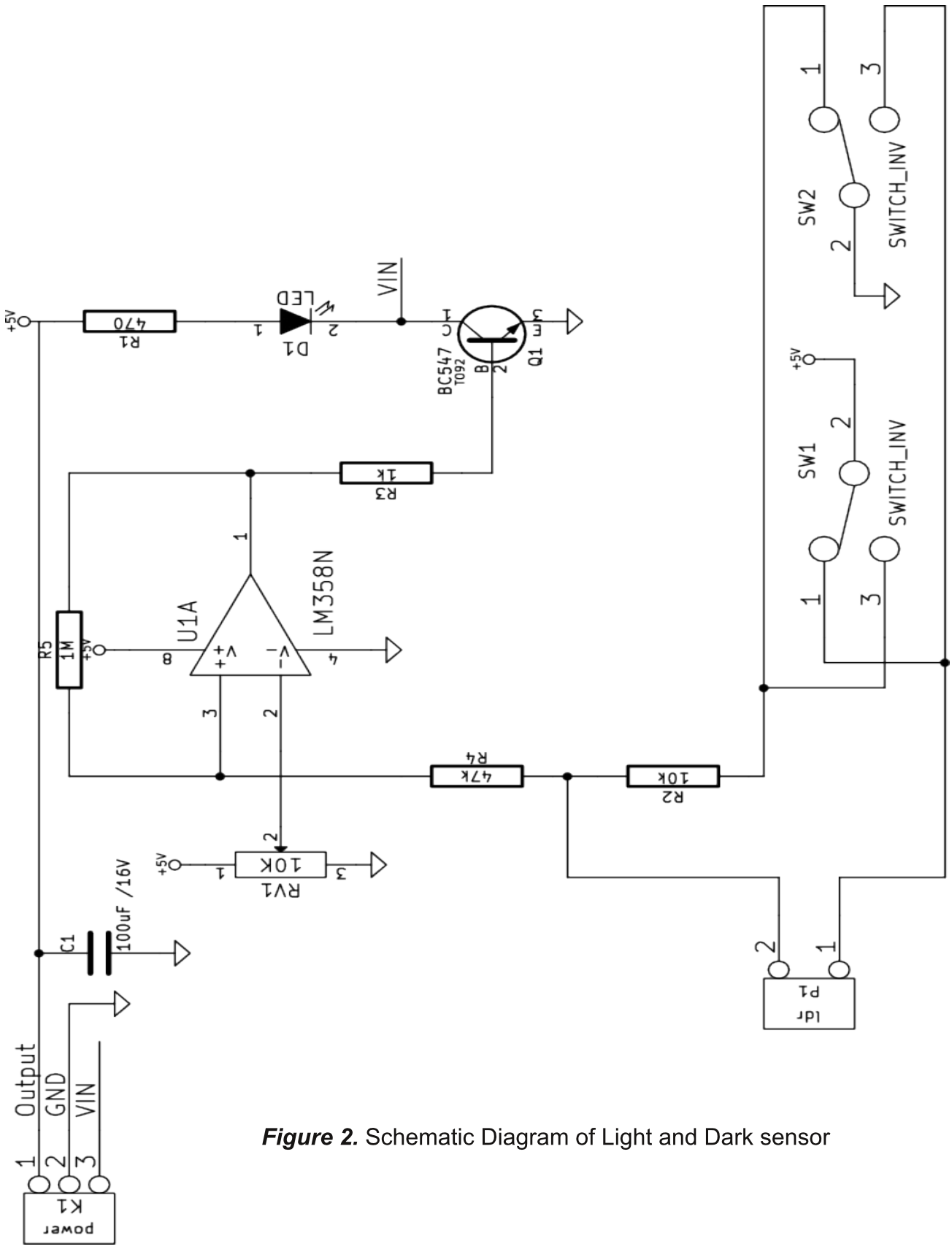

Figure 2. Schematic Diagram of Light and Dark sensor

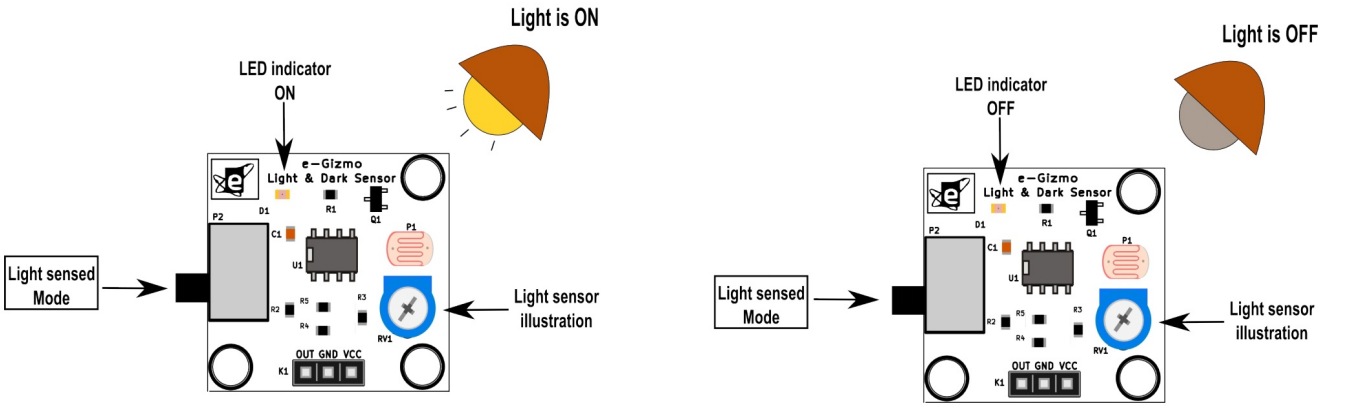

Figure 3. Light Mode Illustration

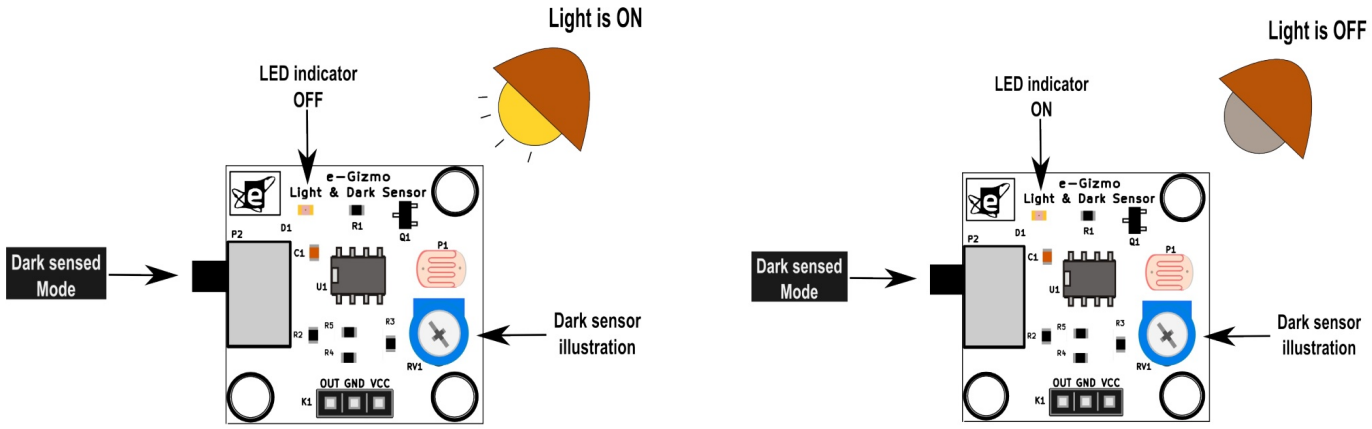

Figure 4. Dark Mode Illustration

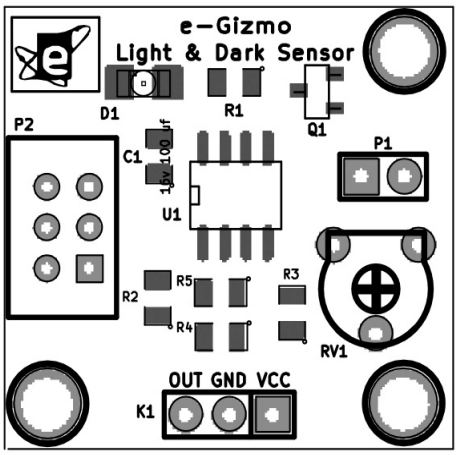

Figure 5. Parts Placement

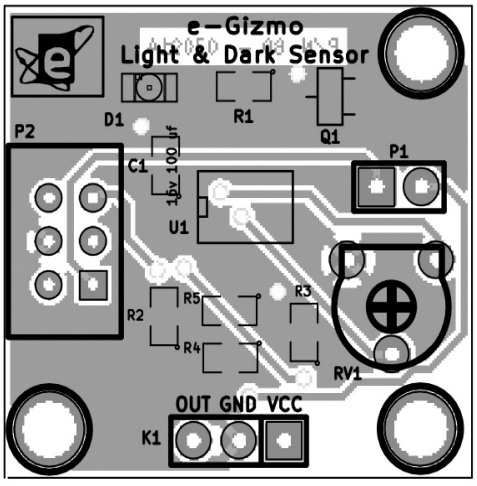

Figure 6. Bottom PCB Guide

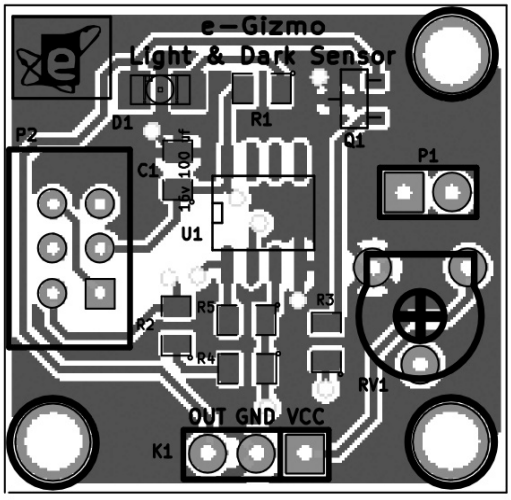

Figure 7. Top PCB Guide

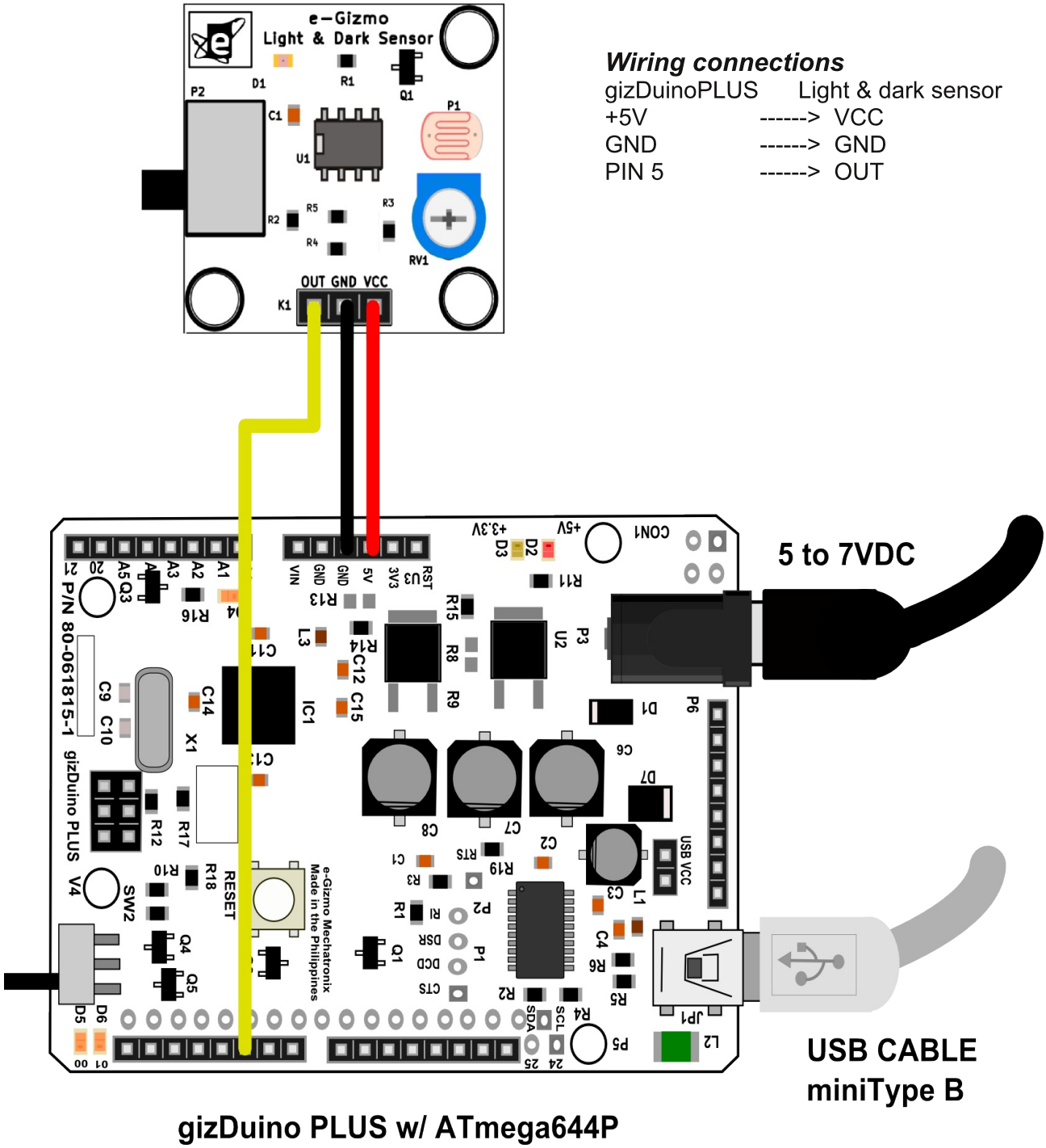

Figure 8. Sample connections

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

```
/*
  e-Gizmo Light & Dark sensor

  Reads an digital output on pin 5 and
  prints the result to the serial monitor.

  This example code is in the public domain.

  Connections:
   Gizduino      Light & Dark Sensor
     +5V   ----->      VCC
     GND   ----->      GND
     D5    ----->      Output

  by:
  e-Gizmo Mechatronix Central
  http://www.e-gizmo.com
  September 8, 2014

*/

// the setup routine runs once when you press reset:
void setup() {
  // initialize serial communication at 9600 bits per second:
  Serial.begin(9600);
}

// the loop routine runs over and over again forever:
void loop() {
  // read the input on digital pin:
  int LDR = digitalRead(5);

  // print out the value you read:
  Serial.print("Output= ");
  Serial.println(LDR);

}
```