Color Sensor

BH1749NUC-EVK-001 Manual

BH1749NUC-EVK-001 is an evaluation board for BH1749NUC, which is a ROHM Color Sensor. This User’s Guide is about how to use BH1749NUC-EVK-001 together with SensorShield®1. *1 SensorShield is sold as Shield-EVK-001.

Preparation

- Arduino Uno 1pc
- Personal Computer installed Arduino IDE 1pc
  - Requirement : Arduino 1.6.7 later
  - Please use Arduino IDE downloaded from http://www.arduino.cc/
- USB cable for connecting Arduino and PC 1pc
- SensorShield 1pc
- BH1749NUC-EVK-001 1pc

Setting

1. Connect the Arduino and the SensorShield (Figure 1)

2. Connect BH1749NUC-EVK-001 to the socket of I2C area on the SensorShield (Figure 2)

3. Set Voltage of the SensorShield to 3.0V (Figure 2)

4. Connect the Arduino to the PC using a USB cable
6. Launch Arduino IDE
7. Select [Sketch]->[Include Library]->[Add ZIP library...], install BH1749NUC.zip
8. Select [File]->[Examples]->[BH1749NUC]->[example]->[BH1749NUC]
Measurement

1. Select [Tools] and check the contents enclosed in the red frame. (Figure 3) Board should be “Arduino/Genuino Uno”. Port should be COMxx (Arduino/Genuino Uno). COM port number is different in each environment.

2. Write the program by pressing right arrow button for upload (Figure 4)

3. Wait for the message “Done uploading” (Figure 4)

4. Select [Tools] -> [Serial Monitor] (Figure 5)

5. Check log of Serial Monitor (Figure 6)

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Board Information

![Top](image1.png)  ![Bottom](image2.png)

Figure 7. Picture of the board

<table>
<thead>
<tr>
<th>Parts number</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Bypass capacitor for VCC(0.1uF)</td>
</tr>
<tr>
<td>R1</td>
<td>Pull-up register for SDA(N.M.)</td>
</tr>
<tr>
<td>R2</td>
<td>Pull-up register for SCL(N.M.)</td>
</tr>
<tr>
<td>R3</td>
<td>Pull-up register for INT(N.M.)</td>
</tr>
<tr>
<td>JP1</td>
<td>Jumper to change slave address</td>
</tr>
</tbody>
</table>

※N.M. = No Mount

Table 1. Parts information
Notes

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