

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)

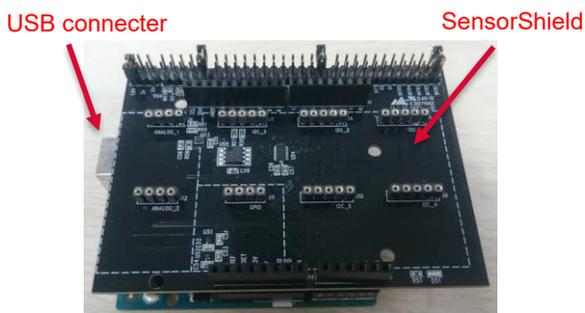


Figure 1. Connection between the Arduino and the SensorShield

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)

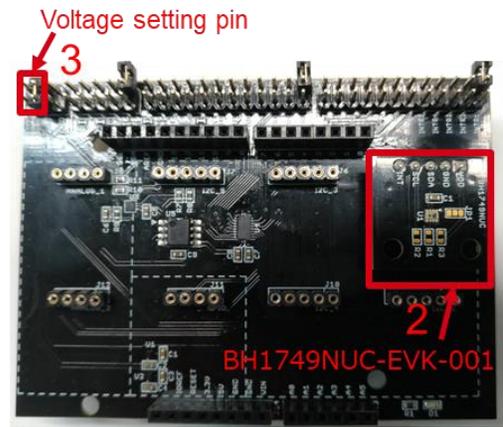


Figure 2. Connection between BH1749NUC-EVK-001 and the SensorShield

4. Connect the Arduino to the PC using a USB cable
5. Download BH1749NUC.zip from <http://www.rohm.com/web/global/sensor-shield-support>
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.

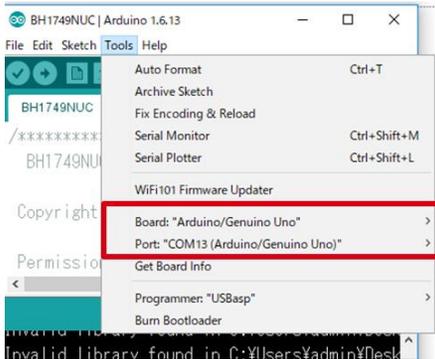


Figure 3. COM Port setting

2. Write the program by pressing right arrow button for upload (Figure 4)
3. Wait for the message "Done uploading" (Figure 4)

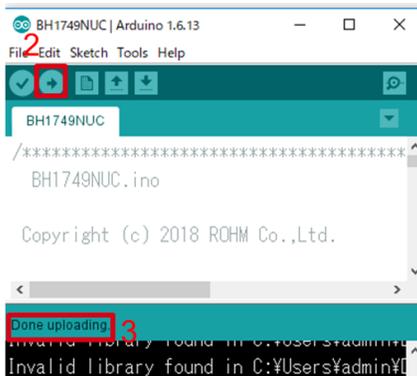


Figure 4. Uploading

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

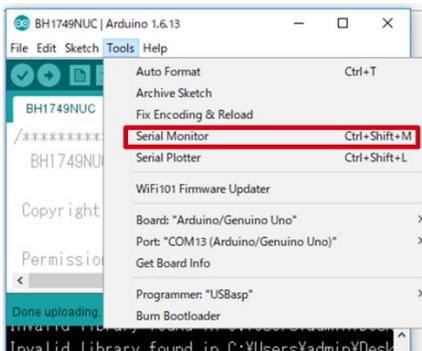


Figure 5. Tools Setting

5. Check log of Serial Monitor (Figure 6)

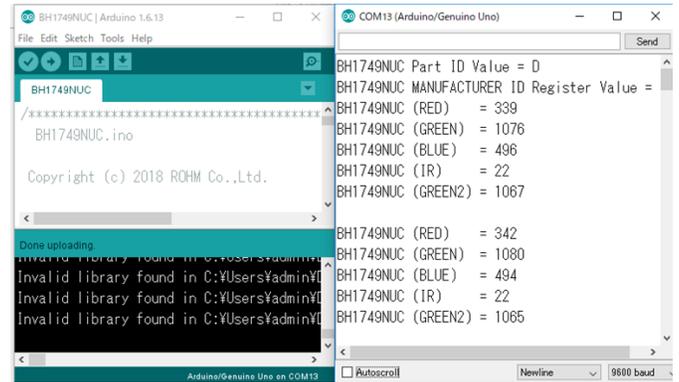
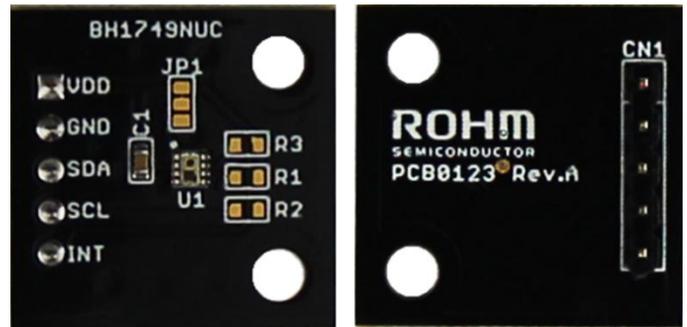


Figure 6. Serial Monitor

Board Information



Top

Bottom

Figure 7. Picture of the board

Parts number	Function
C1	Bypass capacitor for VCC(0.1uF)
R1	Pull-up register for SDA(N.M.)
R2	Pull-up register for SCL(N.M.)
R3	Pull-up register for INT(N.M.)
JP1	Jumper to change slave address

※N.M. = No Mount

Table 1. Parts information

Notes

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