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

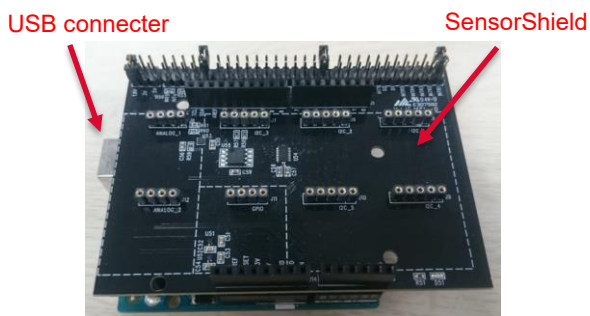1. Connect the Arduino and the SensorShield (Figure 1)

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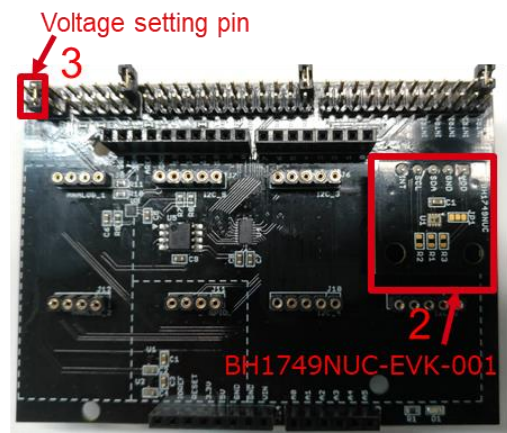3. Set Voltage of the SensorShield to 3.0V (Figure 2)

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.
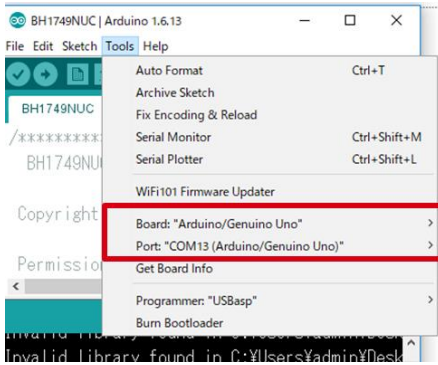

Figure 3. COM Port setting

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

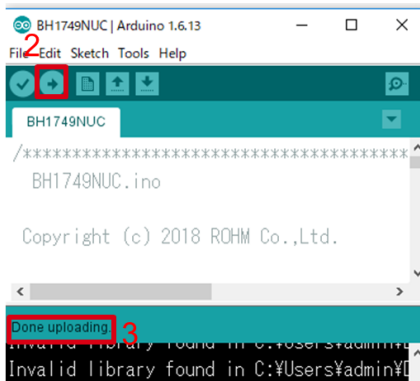3. Wait for the message "Done uploading" (Figure 4)

Figure 4. Uploading

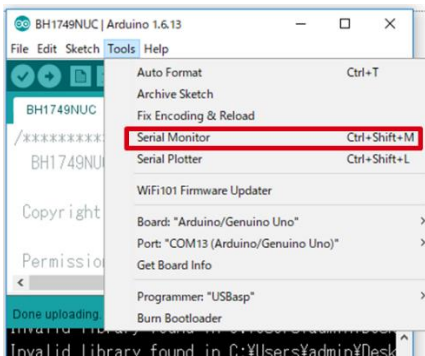4. Select [Tools]->[Serial Monitor] (Figure 5)

Figure 5. Tools Setting

5. Check log of Serial Monitor (Figure 6)
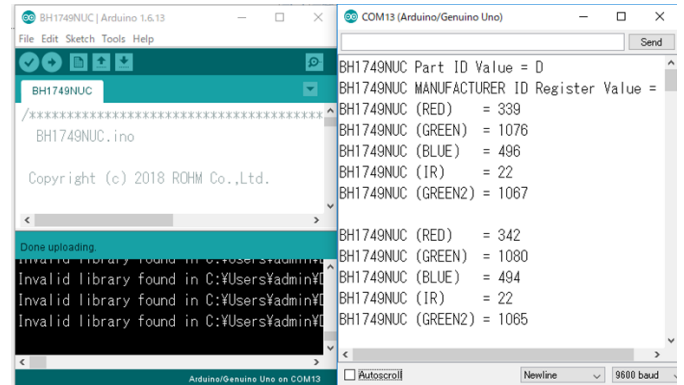
Figure 6. Serial Monitor

Board Information
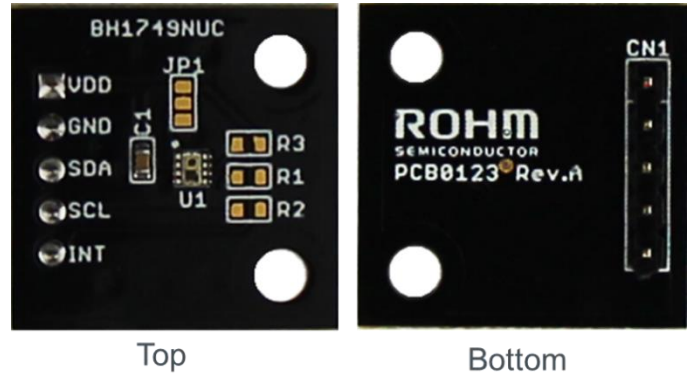
Figure 7. Picture of the board

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

N o t e s

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2) Before you use our Products, please contact our sales representative and verify the latest specifications :

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AR1820HSSC12SHQAH3-GEVB AR1335CSSC11SMKAH3-GEVB MAXCAMOV10640# MT9M031I12STMH-GEVB TSL2581CS-DB
TMD3700-DB NANOUSB2.2 ASX340AT3C00XPEDH3-GEVB AR0144ATSM20XUEAH3-GEVB AR0144CSSC00SUKAH3-GEVB
AR0522SRSC09SURAH3-GEVB AR0522SRSM09SURAH3-GEVB AR0521SR2C09SURAH3-GEVB MARS1-MAX9295A-GEVK
MARS1-MAX9296B-GEVB ISL29112IROZ-EVALZ AR0233AT2C17XUEAH3-GEVB AR0431CSSC14SMRAH3-GEVB MARS-DEMO3-
MIPI-GEVB TCS3430-DB AR0234CSSC00SUKAH3-GEVB AR0130CSSM00SPCAH-GEVB AR0330CM1C00SHAAH3-GEVB EVALZ-
ADPD2212 TMD2772EVM TMG3993EVM MIKROE-2103 TSL2672EVM 1384 MT9M114EBLSTCZDH-GEVB SEN0043 SEN0162
TMD2771EVM TMD3782EVM TSL4531EVM 1918 AS7225 DEMO KIT SEN0097 SEN0212 SEN0228 AR0134CSSC00SUEAH3-GEVB
 AP0100AT2L00XUGAH3-GEVB AR0144CSSM20SUKAH3-GEVB 725-28915 EVAL-ADPD1081Z-PPG