Ambient Light Sensor and Proximity Sensor

RPR-0521RS-EVK-001 Manual

RPR-0521RS-EVK-001 is an evaluation board for RPR-0521RS, which is a ROHM Ambient Light Sensor and Proximity Sensor . This User's Guide is about how to use RPR-0521RS-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 or higher
  - Please use Arduino IDE which can be downloaded from the link below: http://www.arduino.cc/
- USB cable for connecting Arduino and PC 1pc
- SensorShield 1pc
- RPR-0521RS-EVK-001 1pc

Setting

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

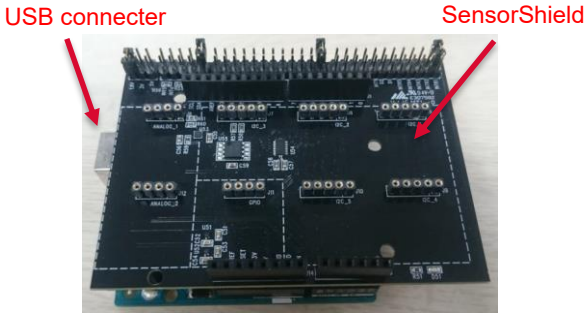

Figure 1. Connection between the Arduino and the SensorShield

2. Connect RPR-0521RS-EVK-001 to the socket of I2C area on the SensorShield (Figure 2)
3. Set Voltage of the SensorShield to 3.0V (Figure 2)

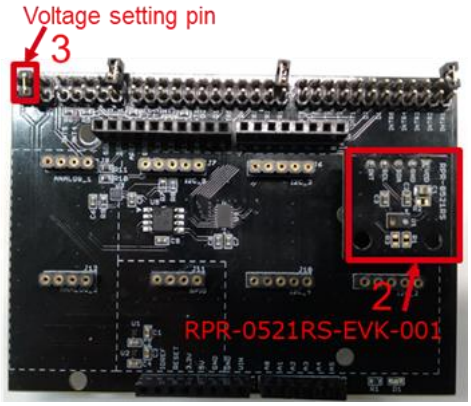

Figure 2. Connection between RPR-0521RS-EVK-001 and the SensorShield

4. Connect the Arduino to the PC using a USB cable
5. Download RPR-0521RS.zip from the link below http://www.rohm.com/web/global/sensor-shield-support
6. Launch Arduino IDE
7. Select [Sketch]->[Include Library]->[Add.ZIP library...], install RPR-0521RS.zip
8. Select [File]->[Examples]->[RPR-0521RS]->[example]->[RPR-0521RS]

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Measurement

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

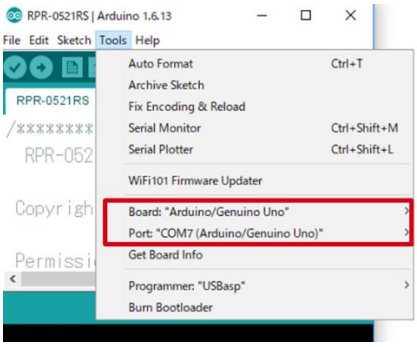

Figure 3. COM Port setting

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

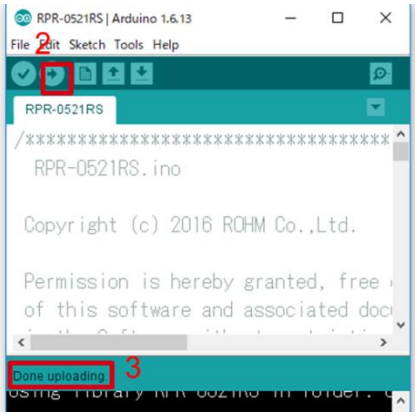

Figure 4. Uploading

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

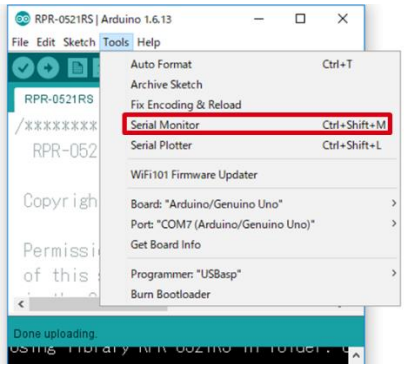

Figure 5. Tools Setting

5. Check log of Serial Monitor (Figure 6)

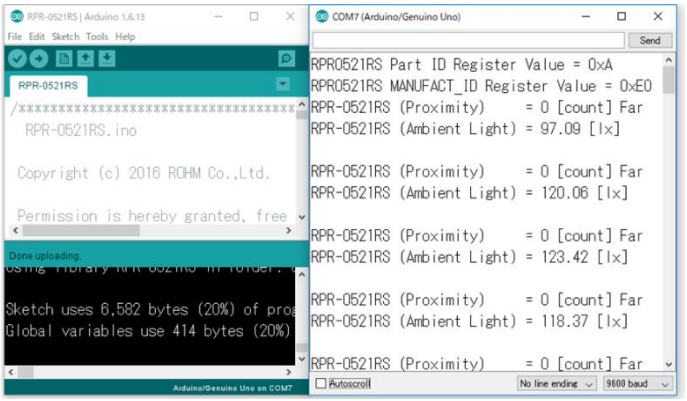

Figure 6. Serial Monitor

Board Information

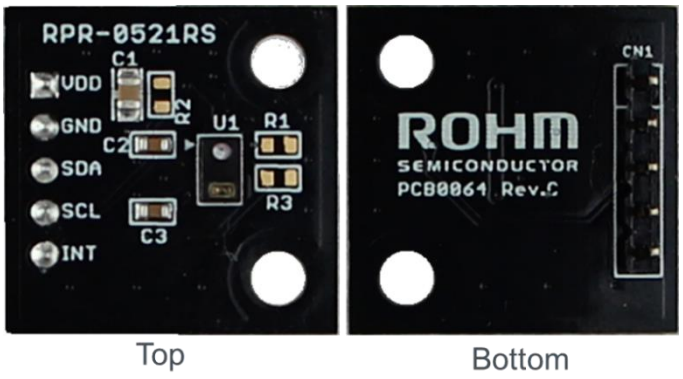

Figure 7. Picture of the board

Parts number	Function
C1	Bypass capacitor for VDD(10uF)
C2	Bypass capacitor for VDD(0.1uF)
C3	Bypass capacitor for LEDA (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.)

※N.M. = No Mount

Table 1. Parts information

Notes

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