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*. * 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)
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)
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]
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](image)

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](image)

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

   ![Figure 5. Tools Setting](image)

5. Check log of Serial Monitor (Figure 6)

   ![Figure 6. Serial Monitor](image)

Board Information

![Figure 7. Picture of the board](image)

<table>
<thead>
<tr>
<th>Parts number</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Bypass capacitor for VDD(10uF)</td>
</tr>
<tr>
<td>C2</td>
<td>Bypass capacitor for VDD(0.1uF)</td>
</tr>
<tr>
<td>C3</td>
<td>Bypass capacitor for LEDA (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>
</tbody>
</table>

※N.M. = No Mount

Table 1. Parts information
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ROHM Customer Support System

http://www.rohm.com/contact/

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