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## Hall IC

# BD7411G-EVK-001 Manual

BD7411G-EVK-001 is an evaluation board for BD7411G, which is a ROHM Hall IC. This User's Guide is about how to use BD7411G-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
- BD7411G-EVK-001 1pc
- Magnet 1pc

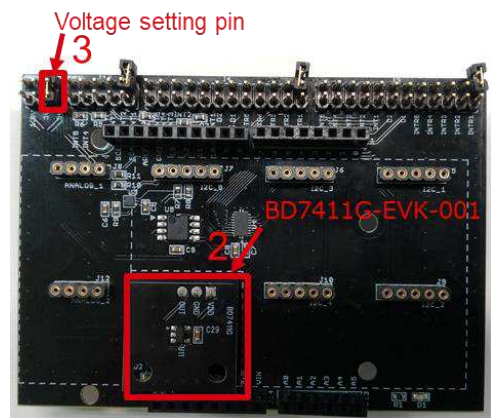


Figure 2. Connection between BD7411G-EVK-001 and the SensorShield

## Setting

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

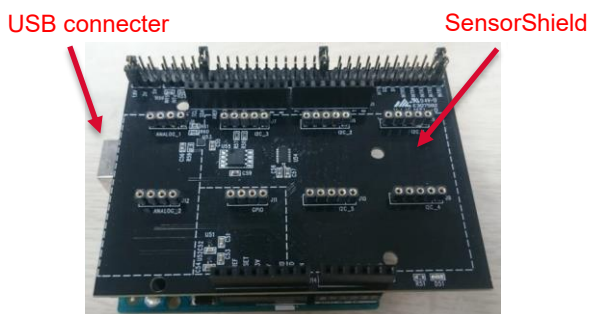


Figure 1. Connection between the Arduino and the SensorShield

2. Connect BD7411G-EVK-001 to the socket of GPIO area on the SensorShield (Figure 2)
3. Set Voltage of the SensorShield to 5.0V (Figure 2)

4. Connect the Arduino to the PC using a USB cable
5. Download BD7411G.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 BD7411G.zip
8. Select [File]->[Examples]->[BD7411G]->[example]->[BD7411G]

**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.

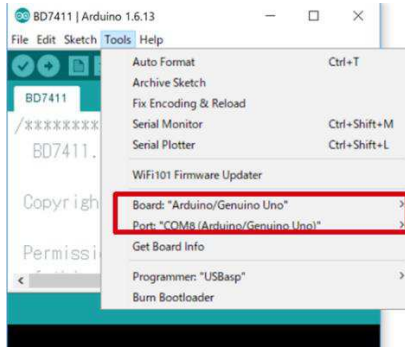


Figure 3. COM Port setting

2. Remove BD7411G-EVK-001 from the SensorShield
3. Write the program by pressing right arrow button for upload (Figure 4)
4. Wait for the message "Done uploading" (Figure 4)

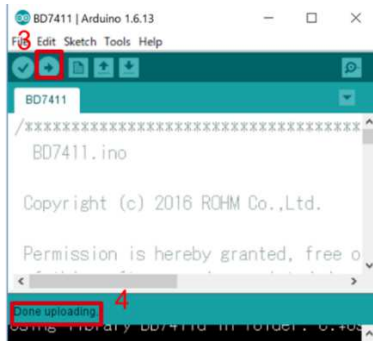


Figure 4. Uploading

5. Connect BD7411G-EVK-001 to the SensorShield
6. Select [Tools]->[Serial Monitor] (Figure 5)

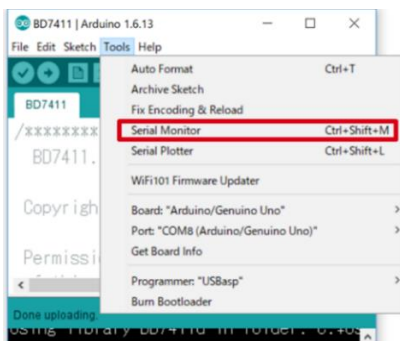


Figure 5. Tools Setting

7. Check log of Serial Monitor (Figure 6)  
"BD7411G Magnet field Detect!" is displayed when the magnet is placed near the sensor board.

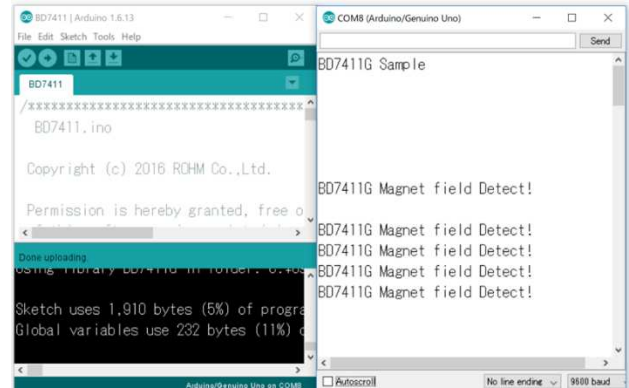


Figure 6. Serial Monitor

**Board Information**

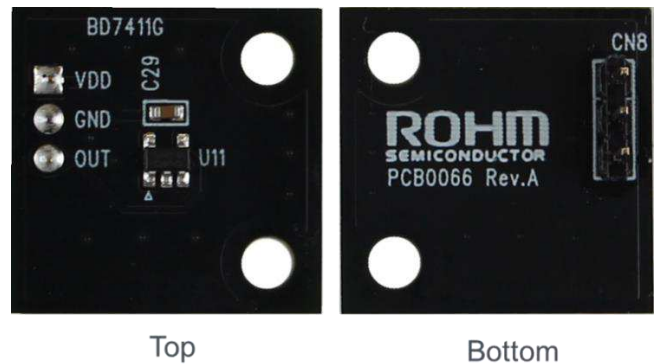


Figure 7. Picture of the board

| Parts number | Function                        |
|--------------|---------------------------------|
| C29          | Bypass capacitor for VDD(0.1uF) |

Table 1. Parts information

## Notes

- 1) The information contained herein is subject to change without notice.
- 2) Before you use our Products, please contact our sales representative and verify the latest specifications :
- 3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.  
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