



## Compatible Grove Sensors

This list contains some, but not all, compatible Grove sensors.

If you do not see your sensor on this list, please contact our support team for further information.

- Digital Light Sensor
- Light Sensor
- Barometer (advanced programming knowledge and calculations required)
- Gas Sensor
- Temperature Sensor
- Air Quality Sensor
- Infrared Receiver, Emitter
- Relays
- Button
- Touch
- Switch
- Thumb Joystick
- Water Sensor
- Alcohol Sensor
- Electricity Sensor
- Sound Sensor
- Moisture Sensor
- PH Sensor
- UV Sensor

## Examples:

### Using Analog Sensor

Write 1 to register 0x42 (66),  
Read integer value from registers 0x44 (68) and 0x45 (69).

### Using Digital Sensor

Write 0 or 1 to register 0x42(66) to turn the sensor on or off.

### Using I2C Digital Light Sensor

EV3 programming Environment must use only decimal values.

**\*\*\*Grove Sensor I2C addresses 8-bit format.\*\*\***

7-bit address: 0x29 (41)

Convert to 8 bit :  $41 * 2 = 82$

8-bit address: 0x52 (**82**)

**\*\*\*Disregard underlined sections if using the EV3 Block.\*\*\***

Configure I2C sensor:

Write I2C command 'T' to register 0x41 (65).

Write Operation Mode 4 to register 0x42 (66).

Set Grove I2C address to 0x52 (82) at register 0x6A (106).

Write the Data Length 1 to register 0x6B (107).

Set Grove register address to 0x80 (128) at register 0x6C (107).

Set Write Value to 3 at register 0x6D (109).

Enable Auto-Polling:

Write I2C command 'P' to register 0x41 (65).

Write Operation Mode 4 to register 0x42 (66).

Write Polling Interval 50 to register 0x43 (67)

Set Grove I2C address to 0x52 (82) at register 0x47 (71).

Set Grove register address to 0x80 (128) at register 0x49 (73).

Set Length to 4 (2 bytes per channel) at register 0x48 (72).

Before reading the data:

Write I2C command 'R' to register 0x41 (65).

Write Operation Mode 4 to register 0x42 (66).

Read Channel 0:

Read unsigned 16 bit integer from Grove Sensor Adapter register 0x4A (74).

Read Channel 1:

Read unsigned 16 bit integer from Grove Sensor Adapter register 0x4C (76).