

LASER TYPE PARTICULATE MATTER (PM) SENSOR

SN-GCJA5L

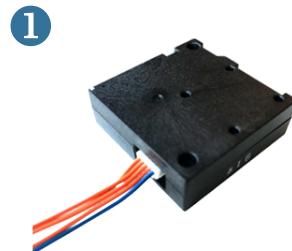
Evaluation Kit Instruction Manual

na.industrial.panasonic.com/laser-type-pm-sensor-eval-kit

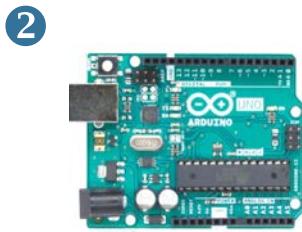


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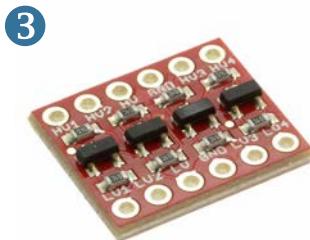
ITEMS NEEDED FOR EVALUATION:



1
Panasonic Laser PM Sensor
And Lead Wire With Connector



2
Switch Science
Arduino UNO Board



3
BOB-12009 Bidirectional I2C
Voltage Level Shifter Using FET

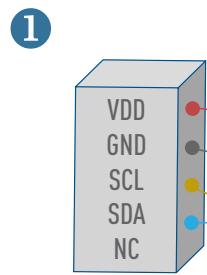


4
Software For
Arduino Uno

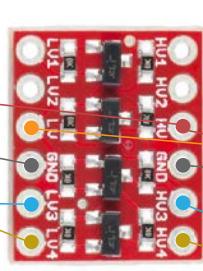


5
Software For
PC application

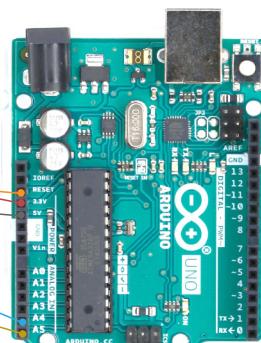
WIRING AND CONNECTION TO ARDUINO® UNO



1
JST Connector
SHR-05V-S
*NC(blue lead) is NA



2
BOB-12009
Bidirectional I2C Voltage
Level Shifter Using FET



3
Switch Science
Arduino UNO Board



2
Software For
Arduino Uno



3
Arduino IDE (Driver)
<https://www.arduino.cc/en/Main/Software>

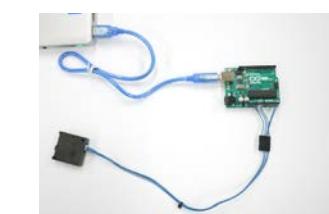
*Recommended Lead Wire AWG26

Panasonic

WIRING AND CONNECTION TO ARDUINO UNO (CONT.)



4



6

TEST BOARD SETUP MANUAL

- 1 Unzip "PM25TestChecker180702.zip"
- 2 In the "PM25TestChecker180702", there are "Arduino Drivers" folder and "PM25TestChecker180702.exe" folder.



- "Arduino Drivers" folder is for (Arduino Uno board's driver install).
- "PM25TestChecker180702.exe" is for (how to get the data with Arduino Uno board)

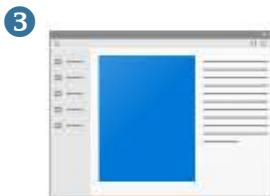
TEST BOARD DRIVER INSTALL

- 1 Connect Arduino Uno board to Windows PC by USB cable. The PC Windows version should be Windows7.
- 2 Install the driver automatically. (If install fails, go to number 3).
- 3 Start the device manager.
- 4 If display "Unknown device", click this file.
If nothing, right-click the Arduino like icon inside "port (COM and LPT)" and click software update.
- 5 Select "refer the driver software on this computer".
- 6 Select the "Arduino Drivers" folder. Check to "search sub folder also" and next.
- 7 Finish the install and confirm there is "Arduino UNO" on the port (COM and LPT). Note the port number.
- 8 If "Arduino Uno" not shown, please try again.

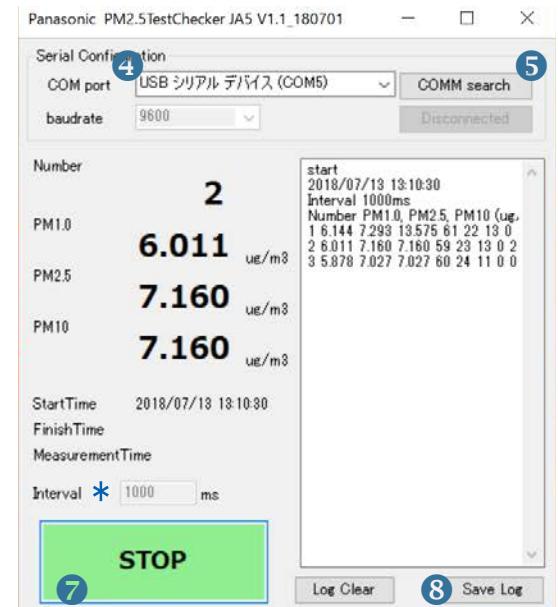
DATA RETRIEVAL

- 1 Make a copy "PM25TestChecker180702.exe" on PC.
- 2 Connect the Arduino Uno board and sensor by the connector.
- 3 Click and start "PM25TestChecker180702.exe".
- 4 Under "COM Port" please click on "COMM Search".
- 5 Otherwise click on "COMM Search".
- 6 Click on "START" and begin measuring.
- 7 Click on "STOP" to stop measuring.
- 8 Click on "SAVE LOG" to save data

* Interval time is fixed



PM25TestChecker
180702.exe

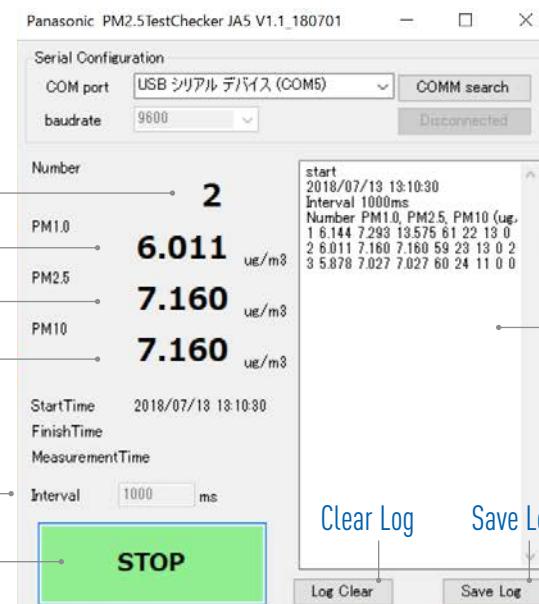


INSTRUCTIONS FOR PM2.5 MONITORING

Number of measurement
PM1.0 mass-density value
PM2.5 mass-density value
PM10 mass-density value

Interval time is fixed

Stop Measurement



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