🖳 **OmronMicroDevices** / **envsensor-observer-py**   `Public`

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🖧 OMRON-ME Update README.md ...		on 13 May	⟲ 16
📁 envsensor-observer-py	Fixed version	3 years ago	
📄 .gitignore	Initial commit	5 years ago	
📄 README.md	Update README.md	7 months ago	

☰ README.md

Note

This division was reorganized already. It doesn't exist now. These contents are planning to move to 'https://github.com/omron-devhub'.

envsensor-observer-py

Python Bluetooth low energy observer example for OMRON Environment Sensor (2JCIE-BL01)(2JCIE-BU01).

- No BLE connections are required
- Accept advertisements from multiple sensor
- Collect variety of environmental information from sensor beacon
  - Temperature
  - Humidity
  - Light
  - UV Index
  - Absolute pressure
  - Noise (Sound level)
  - 3-Axis Acceleration
  - Discomfort Index
  - Heatstroke risk indicator
  - Battery voltage
  - RSSI
- 2JCIE-BU Environment Sensor (USB Type) is now supported (Advertising mode 0x01 & 0x02)

- Flexible data logging options
  - Local CSV file (rotate every midnight)
  - Local / Remote fluentd daemon
  - Local / Remote InfluxDB
- Tested on Raspberry Pi 3 model B (built-in Bluetooth connectivity)

About

Python Bluetooth low energy observer example for OMRON Environment Sensor (2JCIE-BL01)

#visualization #influxdb #grafana #sensor
#stdout #omron #environment-sensor
#omron-micro-devices #sensor-status
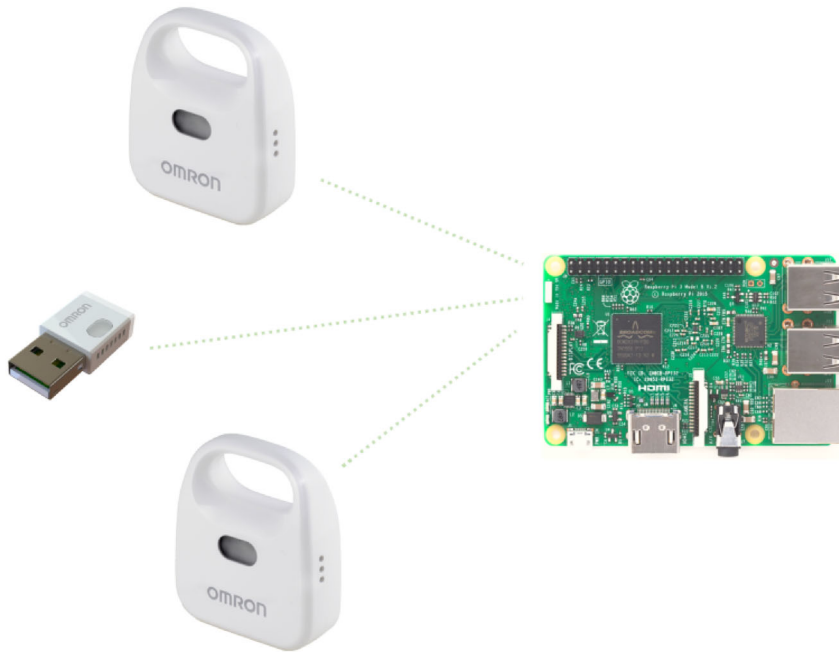
📖 Readme

Releases

🏷 2 tags

Packages

No packages published

Languages

● Python 100.0%

Requirements

- BlueZ libraries
- python 2.7
  - python-bluez
  - [fluent-logger-python](#) (Optional)
  - [influxdb-python](#) (Optional)

Instructions

These instructions apply only to an up-to-date Raspbian Jessie with PIXEL, the official Raspberry PI distro.

Prerequisite

```
$ sudo apt-get install python-bluez
```

When using fluentd forwarder (Optional)

```
$ sudo pip install fluent-logger
```

When uploading data to influxDB 0.9 or higher (Optional)

```
$ sudo pip install influxdb
$ sudo pip install --upgrade influxdb
```

Device Setup

[2JCIE-BL01]

Environment Sensor (2JCIE-BL01) must be configured as a beacon broadcaster (IM/EP).

In this mode of operation, sensor data is included in the advertisement packet to be transmitted.

Please refer to User's Manual for more details.

[2JCIE-BU01]

Advertising mode of USB type Environment Sensor (2JCIE-BU01) must be set to 0x01 or 0x02.

In this mode of operation, sensor data is included in the advertisement packet to be transmitted.

Currently, this sample script only support 0x01 (Sensor data) and 0x02 (Calculation data).

Please refer to User's Manual for more details.

Configuration

Open `conf.py` and edit your configuration.

> CSV is saved under *./log/* directory in the script path by default.
>
> You can specify a different log location in your configuration.

Run

- Normal mode

Only sensor status information is sent to *stdout* in a set interval.

```
$ sudo ./envsensor_observer.py
```

> You need to make `envsensor_observer.py` executable.
>
> You can use **Supervisor** to start the script running in the background when system boot.

- Debug mode

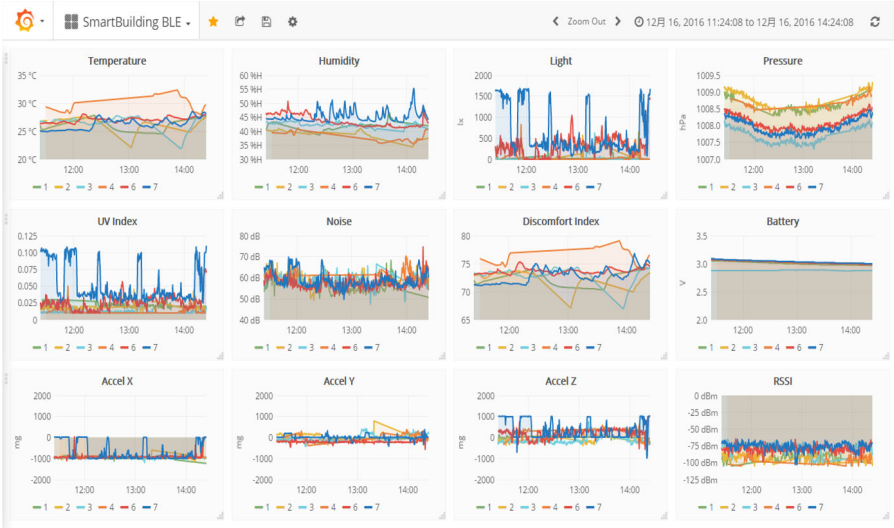Full Bluetooth messages are sent to *stdout* in addition to the sensor status.

```
$ sudo ./envsensor_observer.py --debug
```

or

```
$ sudo ./envsensor_observer.py -d
```

Visualization

With Grafana, you can easily visualize any of data stored in InfluxDB through this script.

Note :

It should be noted that this example code is for demonstration purposes only, it is not intended for use in a production environment, is not guaranteed fit for any purpose.

Licence :

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Reference :

- OMRON Corporation
- OMRON Micro Devices - Github
- OMRON Micro Devices - Resources & Samples
- Environment Sensor : 2JCIE Product Page
- 環境センサ : 2JCIE 製品紹介
- Environment Sensor : 2JCIE-BL01
- Environment Sensor : 2JCIE-BU01