

## Weather Board 2

Best low-cost environmental sensing solution with BME280 and Si1132 on one board.  
The combination of the [BME280](#) sensor and the [Si1132](#) sensor enables measuring temperature, barometric pressure and humidity, UV Index and ambient light at once.

6pin header socket is already soldered. You can simply plug it on to the right connector.

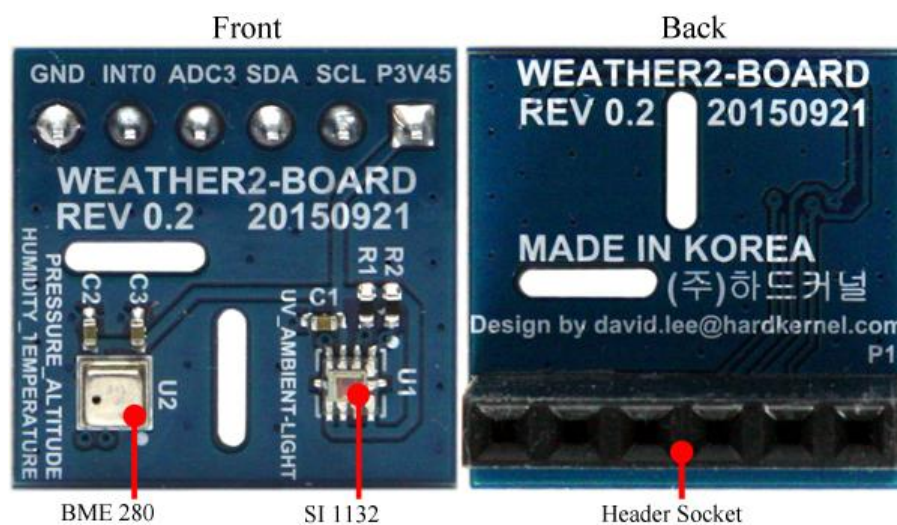
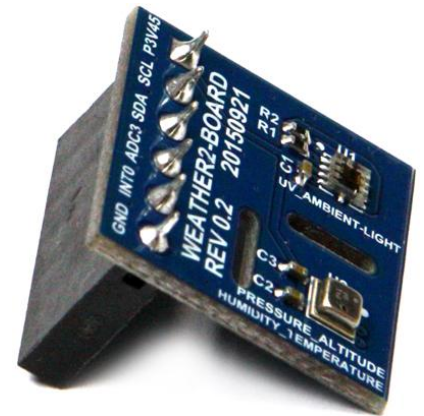
- Dimension is only 16.7x16.4 mm
- Sensors: BME280, Si1132
- Recommended working voltage : 1.75 ~ 3.6 Volt

WiKi Pages (software and hardware guide)

Works with ODROID-SHOW2 [http://odroid.com/dokuwiki/doku.php?id=en:wb\\_odroid\\_show](http://odroid.com/dokuwiki/doku.php?id=en:wb_odroid_show)

Works with ODROID-C Series [http://odroid.com/dokuwiki/doku.php?id=en:wb\\_c\\_16x2lcd](http://odroid.com/dokuwiki/doku.php?id=en:wb_c_16x2lcd)

Works with ODROID-XU4/3 [http://odroid.com/dokuwiki/doku.php?id=en:wb\\_xu4\\_shifter\\_shield](http://odroid.com/dokuwiki/doku.php?id=en:wb_xu4_shifter_shield)



### Board Detail

Pin	Name	Description
1	VDD	Input Voltage 1.75V to 3.55V
2	SCL	I2c Clock
3	SDA	I2c Data
4	ADC3	Do not connect
5	INT0	Interrupt output
6	GND	Ground

#### Key parameters for humidity sensor

- Accuracy tolerance  $\pm 4\%$  relative humidity
- Hysteresis  $\pm 2\%$  relative humidity

#### Key parameters for pressure sensor

- RMS Noise 0.2 Pa, equiv. to 1.7 cm
- Offset temperature coefficient  $\pm 1.5$  Pa/K, equiv. to  $\pm 12.6$  cm at 1 °C temperature change

### Hardware setup

Put your weather board 2 on the ODROID-SHOW2 and connect a micro-USB cable to your host PC or other ODROID Linux boards.

When the connection is established, you can find /dev/ttyUSB0 or similar one.

Connect a 750mAh Li-Po battery if you need a portable device.

### Firmware setup

Download the sketch file and libraries from this link.

<https://github.com/hardkernel/WEATHER-BOARD>

Check the place of weather\_board.ino sketch file.

ODROID-SHOW/firmware/weather\_board/weather\_board.ino

Select "preference" in the File menu and choose "ODROID-SHOW" of sketch folder.

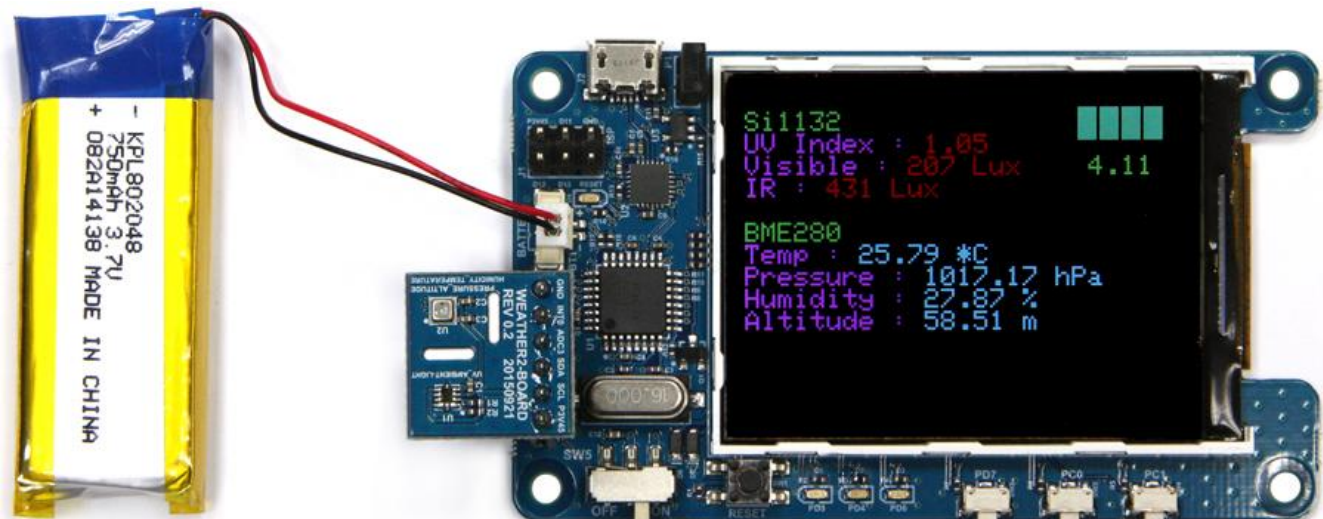
To add proper libraries, Select Import library -> Add library and "ODROID-SHOW/libraries."

It's time to build and upload the sketch file. The jumper(nearby reset button) must be installed. You will see this screen which shows various weather data.

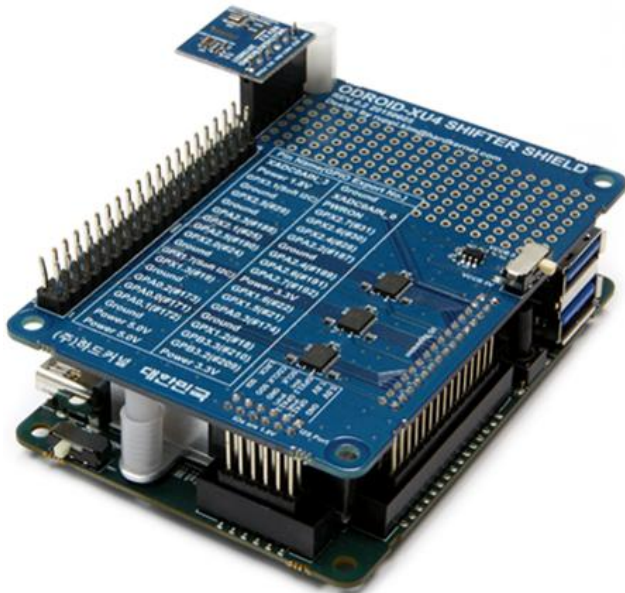
More detail process is described on our Wiki.

<http://odroid.com/dokuwiki/doku.php?id=en:weather-board>

ODROID-Show 2 + 750mAh Battery + Weather Board 2 : Make a portable weather station



ODROID-XU4 + XU4 Shifter Shield + Weather Board2



ODROID-C1+ + 16x2 LCD + IO Shield + Weather Board 2

