

Weather Station for our Friends in Africa

Current partners: Uganda, Benin, Ghana

Idea

We build our own data loggers based on ESP32. Data transmission is done via Wifi, Cellular Network or LoRaWAN.

Sensors

An initial set of sensors:

Tipping Bucket Rain Gauge

Rain Sensor
Comply with National Standard
GB/T 21978.2-2014

- Precise Measurement
- 304 Stainless Steel
- Strong Anti-interference

UICPAL Sensors

The image shows a cylindrical stainless steel tipping bucket rain gauge. To its left are three icons: a scale for 'Precise Measurement', a pair of scissors for '304 Stainless Steel', and a lightning bolt for 'Strong Anti-interference'. The text 'Comply with National Standard GB/T 21978.2-2014' is at the top left. The brand name 'UICPAL Sensors' is at the bottom.

Wind Velocity (Anemometer)

Wind Speed Transmitter

Output → RS485
4-20mA
0-5V
0-10V

- Small Rotational Resistance
- Highly Sensitive
- Waterproof and Anti-corrosion
- Resolution: 0.1 m/s
- Range: 0-30m/s

UICPAL Sensors

Data Sheet: [pr-3000-fsjt-n01.pdf](https://www.uicpal.com/pr-3000-fsjt-n01.pdf)

The image shows a cup anemometer with three cups. To its left is a list of features and output options. The brand name 'UICPAL Sensors' is at the bottom. Below the image is a link to the data sheet.

Wind Direction

Wind Direction Sensor
Output RS485 / 4-20mA / 0-5V / 0-10V



- Anti-corrosion and rust prevention
- Accurate measurement
- Strong anti-interference ability
- The range is wide
- Range: 8 directions

UICPAL Sensors

Data Sheet: [pr-3000-fxjt-n01.pdf](#)

Air Temperature

- PT100 (best)
- DS18B20

Air Humidity

Air Pressure

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Last update: **2024/04/11 10:21**

