

# 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 hands 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.

### Wind Velocity (Anemometer)

**Wind Speed Transmitter**

RS485  
Output → 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

The image shows a cup anemometer with three cups. To its left is a list of features and output options. The text 'Wind Speed Transmitter' is in a blue box at the top. The output options are listed as 'Output → 4-20mA', '0-5V', and '0-10V'. The RS485 protocol is also mentioned.

## Data Sheet

[pr-3000-fsjt-n01.pdf](#)

## Wind Direction



## Air Temperature

- PT100 (best)
- DS18B20

## Air Humidity

## Air Pressure

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