

# 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

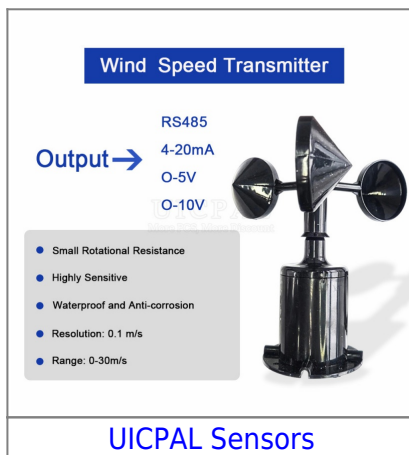


**Rain Sensor**  
Comply with National Standard  
GB/T 21978.2-2014

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

UICPAL Sensors

### 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

### 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

## Air Temperature

- PT100 (best)
- DS18B20

## Air Humidity

## Air Pressure

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