

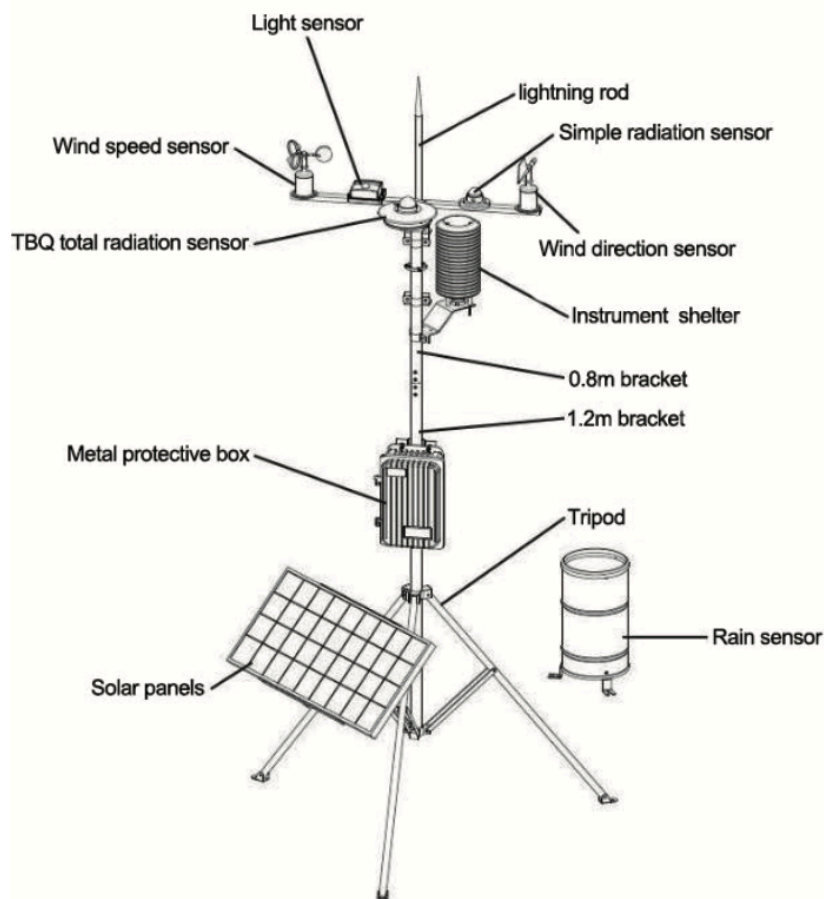
# Weather Station

*Real-Time Climate Insights for Smarter Farming*



## From Climate Data to Smarter Farm Management

Our **weather station** delivers accurate, real-time monitoring of key climate and soil parameters — including temperature, humidity, rainfall, wind speed, wind direction, and soil moisture, NPK, and EC/pH levels. Designed for farms, orchards, and greenhouses, it empowers growers to make data-driven decisions, optimize irrigation, and protect crops from extreme weather.



## Key Advantages

- **Reliable Data**  
High-accuracy sensors with continuous monitoring.
- **Remote Access**  
Real-time data via LoRa, Wifi or 4G connection to the cloud.
- **Easy Deployment**  
Robust, weatherproof design for any environment.
- **Better Decisions**  
Optimize irrigation, spraying, and planting with climate insights.

## Available Sensor Options

### Temperature-Humidity-Light Sensor

The temperature-humidity-light 3-in-1 sensor integrates three key measurements into a single compact device. It provides real-time monitoring of ambient temperature, relative humidity, and light intensity with stable performance and high accuracy. Widely used in greenhouses, orchards, and environmental monitoring, it simplifies installation, reduces cost, and delivers reliable data for smarter farm management.



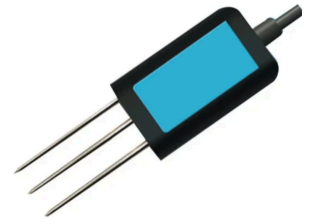
### Rain Sensor

The tipping bucket rain sensor is a kind of hydrological and meteorological instrument. It is used to measure the rainfall in the natural world. At the same time, it converts the rainfall into digital information output in the form of switching value to meet the needs of information transmission, processing, recording and display lights.



## Soil NPK Sensor

The soil NPK three-in-one fertility sensor measures nitrogen, phosphorus, and potassium levels in the soil to assess soil fertility. It can be buried long-term, featuring strong resistance to electrolysis and corrosion, vacuum potting, and a fully waterproof design — making it durable and reliable for continuous soil monitoring.



## Soil Temperature and Moisture Sensor

The soil temperature and moisture sensor delivers stable performance and high sensitivity. It provides accurate, real-time measurement of soil moisture content (volume percentage) and temperature, offering reliable data for irrigation planning and soil management.



## Wind Direction Sensor

The wind direction sensor is compact, lightweight, and easy to install. Its advanced design with a smooth internal bearing system ensures accurate and reliable wind direction measurement. Widely used in greenhouses, weather stations, aquaculture, and other environments where wind monitoring is required.



## Wind Speed Sensor

The wind speed sensor is compact, lightweight, and easy to install. Built with an aluminum housing, it features an anti-corrosion and moisture-proof design for high strength and excellent weather resistance. Widely used in greenhouses, weather stations, aquaculture, ships, docks, and other applications where wind measurement is required.



## CO<sub>2</sub> Sensor

The transmitter uses advanced infrared sensing technology to measure CO<sub>2</sub> concentration with fast and sensitive response. Unlike traditional electrochemical sensors, it avoids short lifespan and long-term drift issues, ensuring stable and reliable performance.



## Application Scenarios

Our weather station is suitable for a wide range of applications, including:

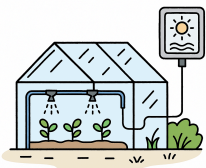


### Open-Field Farming

Monitor climate and soil conditions to optimize irrigation, spraying schedules, and reduce losses from extreme weather.

### Orchards

Track microclimate around trees for precise irrigation and fertilization; receive frost and wind alerts for crop protection.



### Greenhouses

Real-time monitoring of temperature, humidity, light, and CO<sub>2</sub>; enable smart control of irrigation, ventilation, and lighting systems.

### Landscaping

Adjust irrigation automatically based on rainfall and soil moisture to save water and reduce costs.

