

# Solar monitoring and weather station

ART's Solar Monitoring Station is a fully autonomous, tripod-mounted data logger system designed for reliable solar resource measurement. Each station is customised to meet specific client requirements, ensuring optimal performance across various applications.

Ideal for solar resource assessment, solar power generation monitoring, and weather data collection, the system is particularly suited for remote locations where consistent and accurate data is essential.

A typical configuration includes high-quality pyranometers to measure solar irradiance, with options for two Global Horizontal Irradiance (GHI) sensors or a combination of GHI and Global Tilted Irradiance (GTI) in the plane of array, as well as an albedo sensor for ground reflectance measurements. The station is also equipped with environmental sensors to monitor wind speed, wind direction, atmospheric pressure, temperature, relative humidity, and rainfall.

Soiling stations can be integrated to enhance monitoring, with ART offering both a manual option (requiring weekly cleaning) and the DustIQ passive sensor option.

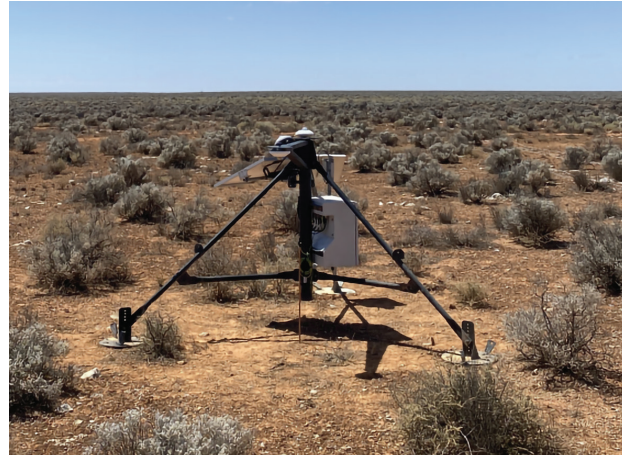
The tripod-mounted design provides stability and safety and features a ground grabber anchor for unstable conditions, while also allowing for easy setup and relocation, making it a versatile and reliable choice for solar measurement across various environments.



## FEATURES

- ✓ Tripod-mounted design for stability and easy setup.
- ✓ Comprehensive environmental monitoring for various parameters.
- ✓ Options for other sensors and soiling stations.
- ✓ Soiling stations can be integrated to enhance monitoring.





## Technical specifications

FEATURE	DESCRIPTION
Solar pyranometer	Typical 2 x Secondary Standard/Class A pyranometers (various options available including Middleton, Kipp and Zonen, EKO) & 1 x Albedo
Weather transmitter	Combined Vaisala Weather Transmitter WXT536
Soiling station	Kipp & Zonen DustIQ or dual solar modules/shunt
Logger type	Campbell Scientific to suit configuration
Communication interface	RS232 or ethernet
Remote monitoring	4G with external antenna, or satellite
Logger enclosure	IP66 Stainless steel powder coated
Tripod material	Galvanised steel
Power	50W Solar 12V DC
Autonomy	7 days
Solar array	Adjustable tilt
Dimensions height	1700 mm, Tripod footprint diameter: 2970 mm
Weight	130 kg

## About us

ART designs, manufactures, installs, and maintains turnkey infrastructure solutions for wind resource assessments, as well as for the broader renewables, resources and communications industries.

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