

IoT SENSING STATION

The Solar-Powered, Modular IoT Station Deployed Anywhere



Precision Monitoring, Simplified

Deploy in minutes, monitor for years. The YenProtek IoT Sensing Station delivers real-time environmental data without complex cabling. Solar-powered, rugged, and ready for any site—from smart farms to green energy plants.



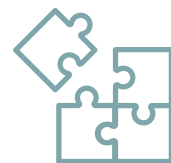
ULTRA-LOW POWER CONSUMPTION

100% solar-powered with 24/7 operation. Provides 7+ days of autonomy even without sunlight. Optimized for ESG and environmental monitoring.



ZERO-WIRING DEPLOYMENT

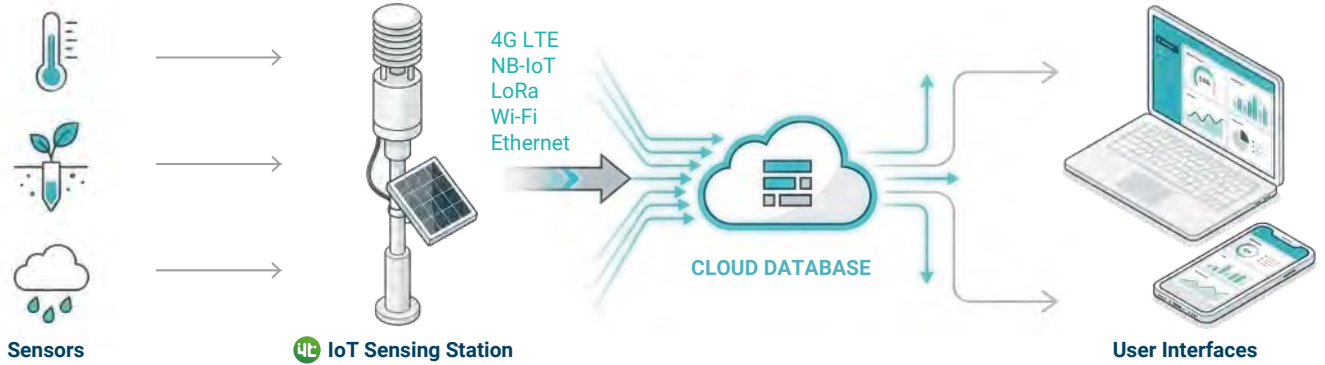
Wireless setup in minutes without power or signal cabling. Saves infrastructure costs while ensuring zero impact on the existing site layout.



FLEXIBLE MODULAR DESIGN

Flexible LEGO-style structure for easy sensor swapping. Supports monitoring for Air, Soil, Water, Noise, and PM2.5/PM10 across diverse environments.

■ END-TO-END IoT SOLUTION



■ MODULAR SENSOR OPTIONS

Classification	Sensor Item	Measurement Range	Accuracy	Resolution
Micro-Climature & Air Quality	Air Temperature	-30 ~ 80 °C	±0.5 °C	0.01 °C
	Relative Humidity	0 ~ 95% RH	±5% RH	0.01% RH
	Barometric Pressure	300 Pa ~ 120 kPa	±5 Pa	-
	Black Globe Temperature	-40 ~ 100 °C	±0.2 °C	-
	PM2.5 / PM10	0 ~ 500 µg/m³	±10%	1 µg/m³
	CO2 Concentration	0 ~ 5000 ppm	±(50ppm+5%)	1 ppm
	Noise (dB)	30 ~ 130 dB(A)	±3 dB	0.1 dB
	Wind Speed	0 ~ 70 m/s	±0.3 m/s	0.3 m/s
	Wind Direction	0 ~ 359°	±3°	1°
	Rain Gauge	0 ~ 240 mm/hr	±4%	0.5 mm
Light & Radiation	Water Level	10 ~ 450 cm	±1 cm	3 mm
	Illuminance (Lux)	0 ~ 200,000 Lux	±4%	1 Lux
	PAR (Quantum)	0 ~ 5000 µmol/m²s	-	1 µmol/m²s
Soil Health	Solar Radiation	0 ~ 1800 W/m²	±5%	20 W/m²
	Soil Temperature	-20 ~ 70 °C	±1.0 °C	0.0625 °C
	Soil Moisture	0 ~ 60%	±3% F.S.	0.01%
	Soil EC (Conductivity)	0 ~ 5 dS/m	±3% F.S.	0.001 dS/m
	Soil pH	pH 3 ~ 9	±0.3 pH	-
Soil NPK	0 ~ 2000 mg/kg	±2% F.S.	-	

※ Data sources based on YenProtek 2025 official specifications. We offer a wide range of additional sensor modules. Please contact us for custom integration or specific project requirements.

■ MAIN UNIT SPECIFICATIONS

Feature	Specification
Dimensions	Box Type : 285(L) × 135(W) × 120(H) mm Cylindrical Type : ∅ 130 × 400(H) mm
Enclosure Material	PC+ABS (Industrial Grade UV-Resistant Polycarbonate)
Power Supply	Solar Panel + Rechargeable Li-ion Battery / AC 110V/220V / External Lead-acid Battery
Connectivity	NB-IoT / LTE (4G) / Wi-Fi / RS-485 (Modbus RTU) / LoRa (Requires LoRa Gateway)
Data Logging	MicroSD Card Buffering (Auto-upload / Breakpoint Resumption)
Sampling Rate	User Customizable (Range: 1 min ~ 24 hours)
Operating Temp.	-20°C to +60°C (Designed for harsh outdoor environments)
Battery Life	> 7 days without sunlight (Sleep Mode supported)



Field-Proven Technology, Globally Deployed

