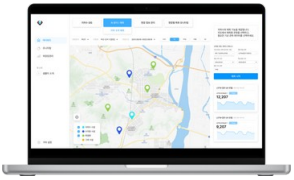
OUR SERVICE

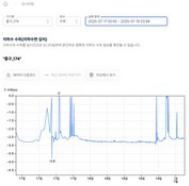
Smart groundwater management for a sustainable future

Built on our own IoT monitoring system, we develop AI models for groundwater analysis and forecasting, and deliver solutions for urban construction safety and sustainable water resource management.



01

Groundwater monitoring web service



02

Groundwater analysis & modelling research



03

Sensor IoT hardware & software development



04

Sensing-based automatic control systems

Solution 01

Water level monitoring & flow control system

Water level IoT device

Non-contact LIDAR or
submersible pressure sensor



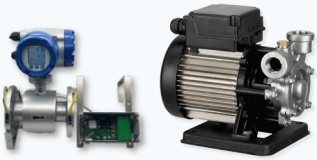


AWS IoT

LTE Global band

Flow measurement & pump control

- Flow meter input ports
  [Modbus RTU, 4/20 mA, Pulse]
- Pump control
  [Digital output, Relay contact]



A single device measures flow and controls a pump at the same time. Level data is transmitted in real time and served through a web application for continuous monitoring.

Monitoring web service

- AWS-IoT cloud platform
- Data download and open API



Solution 02

Storm drain monitoring system

Water level in the drain and the seating of the manhole cover are monitored together, preventing flood damage from surcharge and falls through displaced covers.

Storm drain IoT device

- RADAR or ultrasonic sensor
- Clips under the manhole cover
- Cover attitude sensor included







Monitoring web service

- Risk detection and alerts
- Sampling interval adapts to the level detected



Tailored IoT monitoring service





Installation photographs

Solution 03

Construction safety management system

Wireless instruments and a safety management platform that automate construction monitoring and reporting.

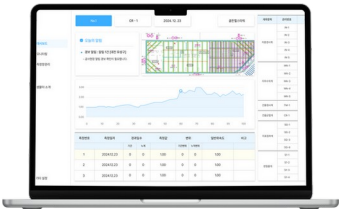
Monitoring web service

- Risk detection and alerts
- Automatic safety report generation

A wide range of instruments

- Strain gauges, load cells, crack meters, tilt meters, groundwater level meters
- Vibrating wire, voltage, current, pulse and Modbus RTU inputs supported







#auto-reports #construction #safety #platform

IoT Devices 01

Storm drain level sensor

- **Detects flood risk from manhole surcharge in real time**
- **Clips under the manhole cover — no civil work required**
- **Measures level and cover attitude together to flag anomalies**





Item	Description	Remarks
Sensing depth	0.15 – 7.5 m	
Accuracy	± 2 cm	
Wireless	LTE Cat 1 (BIS)	Global IoT USIM
Display	1.3 inch OLED	
Memory	Micro SD card 16 GB	
Power	Li-ion battery 3.6 V 13.4 Ah	18650 1S4P, PCM included
Environment	0 – 55 °C, ~90% RH	
Size	W125 × H125 × D75 mm	Main body only
Weight	0.9 kg	

* Product specifications are subject to change without notice.

Water level sensor

- **Measures level in wells, boreholes and water tanks**
- **Choice of non-contact LIDAR or submersible pressure sensor**





Item	Description	Remarks
Sensing depth	LIDAR: max. 40 m Pressure: 15 m (default)	Contact sales for other depths
Accuracy	LIDAR: ± 2.5 cm Pressure: ± 0.2% F.S	
Wireless	LTE Cat 1 (BIS)	Global IoT USIM
Display	1.3 inch OLED	
Memory	Micro SD card 16 GB	
Power	Li-ion battery 3.6 V 13.4 Ah	18650 1S4P, PCM included
Environment	0 – 55 °C, ~90% RH	
Size	W160 × H80 × D90 mm	Main body only
Weight	LIDAR: 0.9 kg / Pressure: 1.8 kg	

* Product specifications are subject to change without notice.

IoT Devices 03

Flow meter & pump controller

- **Instantaneous and totalised flow measurement combined with pump control in one unit**
- **Interfaces with most commercially available flow meters**



Item	Description	Remarks
Flow input	Modbus RTU, analogue 4/20 mA, pulse	Flow rate [m³/h], total flow [m³]
Pump control	Digital output, relay contact	
Wireless	LTE Cat 1 (BIS)	Global IoT USIM
Display	1.3 inch OLED	
Memory	Micro SD card 16 GB	
Power	Li-ion battery 3.6 V 13.4 Ah	18650 1S4P, PCM included
Environment	0 – 55 °C, ~90% RH	
Size	W160 × H80 × D90 mm	Main body only
Weight	0.8 kg	

* Product specifications are subject to change without notice.