

FlatMesh® Camera

Wireless 3G Camera + Local Sensors
= Intelligent Earthworks Monitoring

The FlatMesh® Camera, when working with other sensors nearby, provides an integrated earthworks solution. With tilt sensors measuring slippage, images can be automatically triggered based on movement. This avoids the need for manual intervention or visits. Local intelligence between nodes also enable faster reporting automatically and accelerated transmission of data from the solar powered gateway to minimise lag. This ensures very rapid decision making. Our ability to integrate external sensors such as; soil moisture sensors, extensometers, IPIs and piezometers also aids prediction and offers a complete approach to earthworks monitoring,



Nano and Nano+ Triaxial Tilt Sensor Range



The Nano and Nano+ are discreet triaxial tilt sensors that can be quickly installed in any orientation to any surface using a wide range of fixings including: glue, screw and magnetic mounting.

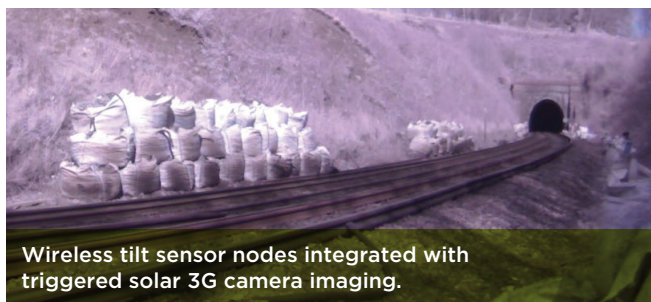


Senceive
Wireless condition monitoring

GeoWAN®
long-range | reliable | precise

FlatMesh®
reliable | robust | precise

Wireless Structural & Geotechnical Monitoring Solutions



Wireless tilt sensor nodes integrated with triggered solar 3G camera imaging.

APPLICATIONS

- Tunnels
- Bridges
- Building Facades
- Retaining Walls
- Trackbed
- Embankments

KEY SPECS

- Repeatability of $\pm 0.0005^\circ$ ($\pm 0.009\text{mm/m}$)
- Durable IP68 rated shell. No external aerial
- Battery life of up to 5 years with the Nano+
- 2 second reporting rate

KEY SPECS

- Rapid real time response and decision making
- Simple and quick install
- Automatic image triggering
- Local "intelligence" at node level
- NO wires or mains power
- Dual IR illuminators offer 24/7 coverage
- Piezometers, extensometers, IPIs and soil moisture sensors aid prediction

Get in touch today:

1300 867 266

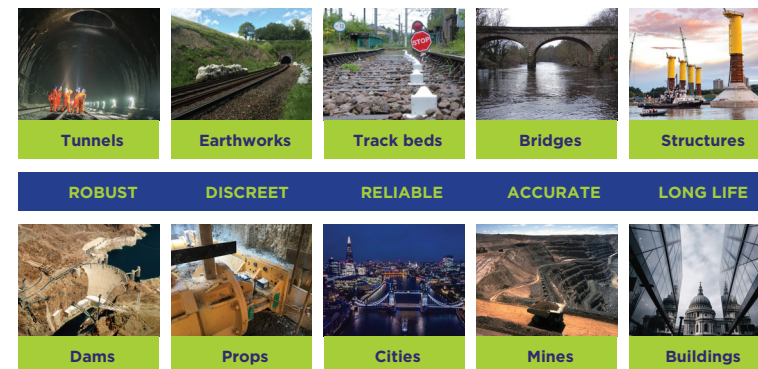
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Shaping New Dimensions

We Listen - We Innovate - We Deliver

- Designed for and by civil engineers/surveyors/asset owners
- Proven to be reliable and robust over 13 years
- High precision and repeatable sensing
- Full range of sensors for measuring tilt, displacement, strain, load, water pressure, temperature and much more
- Wireless and mains or solar 3G gateways
- Choice of platforms: Dense and fast reporting vs long range



GeoWAN[®] is our new wireless IoT platform that builds upon the strengths of our existing proven FlatMesh[®]. With its extremely long range transmission capability of up to 15km and ability to transmit through buildings. It is ideal for widely dispersed monitoring points, basements and sub-surface and congested urban environments as well as mines, dams and quarries.



- Up to 15 km range when line of sight is maintained
- Up to 4 km range in urban areas
- Up to 2 km range when the line of sight is obstructed (e.g. manhole, layer of soil)

APPLICATIONS

- Tunnels and pipelines
- Dams, mines and quarries
- Covered or obstructed assets and open areas or congested urban environments
- Buried or subsurface sensing e.g. basements
- Highly dispersed asset monitoring
- Busy construction sites

KEY SPECS

- Full range of wireless geotechnical/structural sensors
- Up to 1,000 sensors per gateway
- Waterproof to IP66/68
- Can accommodate buried equipment
- Up to 15 years battery life on nodes
- Powered gateway or public network connectivity

Senceive's sensor interface range allows a wide range of external geotechnical and structural sensors to be easily integrated into our monitoring architecture. The range includes the Vibrating Wire Node, which accommodates strain gauges, load and pressure cells, IPIs, extensometers and much more. The Millivolt Sensor Node brings a wide range of resistive bridge sensors into our system, such as load pins/cells, pressure sensors, torque sensors etc. The PT100 RTD Sensor Node allows for precision temperature monitoring for a variety of assets including rail, for critical temperature alerting, concrete and steel structures, and heating/ventilation systems. Our Crack Sensor Nodes interface to linear displacement sensors to measure movement between two points.

We are continuously working with our customers to bring evermore new external sensors into our wireless platforms.



WE MEASURE

- Slippage/Movement
- Settlement/Heave
- Soil Moisture Content
- Ground Water Level
- Piezometric Pressures
- Rail Temperature
- Earth Pressures
- Structural Deformation
- Strain
- Differential Movement
- Load
- Tilt

SENSOR TECHNOLOGIES

- Vibrating Wire Node (Single/4 port)
- Millivolt External Sensor Node
- PT 100 External Sensor Node
- Crack Sensor Node (Single/2 port)



The Optical Displacement Sensor node is a completely wireless laser displacement monitoring device with a repeatability of $\pm 0.15\text{mm}$ even at 100-150m. It is fully enclosed and integrated within our standard FlatMesh[®] wireless node offering high precision displacement measurements and includes an integrated triaxial tilt sensor.



WE MEASURE

- Tunnel and Shaft Convergence/Divergence
- Arch Stability
- Bridge Abutment Movements
- Retaining Wall Movements
- Floor to Ceiling Measurements
- Rail Track Slew
- Water Level

SENSOR TECHNOLOGIES

- Wireless
- Repeatability of $\pm 0.15\text{mm}$
- Ranges up to 150m
- Integrated high precision triaxial tiltmeter
- Waterproof to IP66/68
- Minimum range is 50mm