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Auriel Record

Portable 3D LiDAR system to scan the environment to record the motion of dynamic objects.

For temporary installations.

Auriel Record product page.

Applications

Outcomes

Smart city

Volume, flow and classification of road traffic.

Footfall in pedestrian zones, pavements, parks.

- To effectively plan and modify infrastructure and highways.
- To monitor air quality.
- To monitor effectiveness of signage and billboard advertising.

Transportation hubs

Footfall and flow in airports, railway and bus stations, ferry terminals.

Car park occupancy analysis.

- To monitor queue and crowd formation to identify bottlenecks.
- To identify optimal location of facilities, signage, advertising and retail outlets.

Maritime and waterways

Smart marinas – quantity, vessel length and type classification in and out of ports and harbours.

Volume, flow and classification of vessel traffic along rivers, at bridges, locks and docks.

- To effectively plan and modify infrastructure of ports, harbours and waterways.
- To enable capacity management.
- Improve the safe navigation of waterways.

Motion and performance

Gait analysis of people or animals e.g. horses.

Athlete movement and match recording.

- To assess biomechanics and movement efficiency and identify potential injury risks.
- Optimise exercise and improve sports performance.
- Post game analysis providing insights for training and strategy.

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Benefits of Auriel Record

Static remote sensing technology, designed and manufactured in Scotland to withstand harsh environmental conditions, for temporary outdoor installation.

Ease of use	Self-contained compact system including LiDAR sensor, processor, software and storage to record and save LiDAR data. Simple to configure and operate via a web interface. Connect to the system via Ethernet or Wi-Fi. External LED provides the status of the unit. No need for a separate laptop!
Quick deployment	Portable and ideal for temporary installation. Speedy installation on a tripod; or fix to a structure using quick release straps or bolts. Powered from single external battery.
Timestamp and position referencing	LiDAR data synchronised to GNSS time: enables correlation with independently collected data from other sensors e.g. air quality monitor. GNSS location is automatically logged during recording.
Data transfer	Download raw data files via Ethernet or Wi-Fi for review and analysis Raw LiDAR data files stored in its' native format: enables processing in a variety of software including Purepoint Pro software.
Rich data capture	360° panorama: captures a 3 dimensional point cloud allowing 3D modelling and spatial analysis. Rich high resolution datasets for processing using Spatial or Artificial Intelligence.
Anonymous	No personal, identifiable, details of an individual or vehicle are captured ensuring compliance with many International Privacy laws. No need to "blur" images!
Scalable	Option to add extra processor boards to enhance functionality and capability. Deploy multiple units on a network with data uploaded to a central location.
Minimal supervision	Self-reliant with low intervention.

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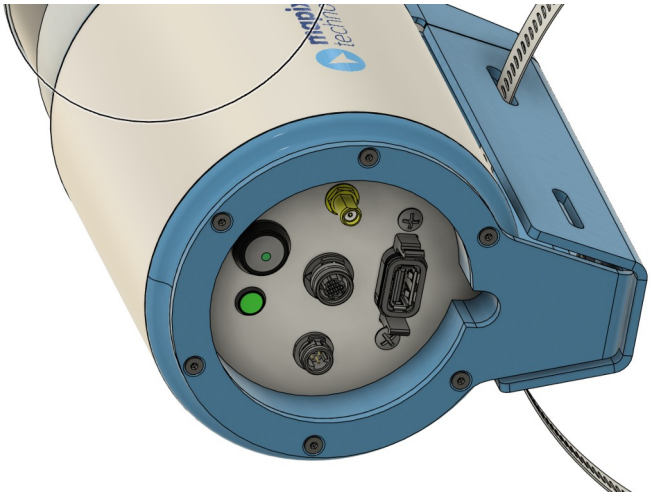
Specialists in LiDAR integration

Mapix technologies are LiDAR experts in mapping, autonomous vehicles, industrial, robotics and marine applications. An early adopter of LiDAR in 2008, today we are a leading authority in LiDAR solutions and system integration. We focus on developing turnkey solutions for static, vehicle and drone mapping including hardware and desktop post-processing software.

Utilising the framework and building blocks we have developed since 2013 we create industry and\or customer specific solutions. We integrate the most appropriate LiDAR sensor for your application, performance and price requirements.

SIDE VIEW



END VIEW

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Auriel Record technical specifications

Integrated static LiDAR recording system for 3D data capture of moving objects.

Auriel Record	
Storage capacity	Approx 10 hours of internal storage
GNSS	66 channel GNSS receiver provides timestamp and position
External Interface	Wi-Fi / Ethernet / RS232
Ethernet Speed	100Mbps
Operating voltage	10 - 18V
Power consumption	12W (Typical)
Weight	2.1kg (1.55kg when fitted with Dome LiDAR sensor)
Dimensions	220 (height) x 105 (diameter) mm
External mounting	2 x M5 fixings in handle or using 2 x Jubilee hose clamps
Operating temperature	-20°C to +65°C

LiDAR sensor options

Select the most suitable for your application based on resolution and budget:

LiDAR sensor	**Low Resolution**	**High Resolution**	**Dome**
Number of channels	16	32	128
Vertical Resolution	2.0°	1.0°	0.8°
Range	Up to 120m	Up to 120m	Up to 60m
Range accuracy	±1cm (Typical)	±1cm (Typical)	±3cm (Typical)
Horizontal Field of View	360°	360°	360°
Vertical Field of View	31° (-16 to +15)	31° (-16 to +15)	93.5° (-3.5 to +90.5)
Horizontal resolution	0.09° / 0.18° / 0.36°	0.09° / 0.18° / 0.36°	0.4° (finest)
Points per second (Single Return Mode)	640,000	640,000	1,152,000
Points per second (Dual Return Mode)	1,280,000	1,280,000	2,304,000
Refresh rate	5 / 10 / 20Hz	5 / 10 / 20Hz	10 / 20Hz
Laser	903nm Class 1 eye safe	903nm Class 1 eye safe	903nm Class 1 eye safe
Water resistance	IP67	IP67	IP67

Rapid and straightforward smart 3D data capture and processing to save time.

Want to know more?
Contact us at
E sales@mapix.com
T +44 (0)131 513 9608

Mapix technologies Ltd, 17b Graham Street, Edinburgh, EH6 5QN, Scotland
www.mapix.com