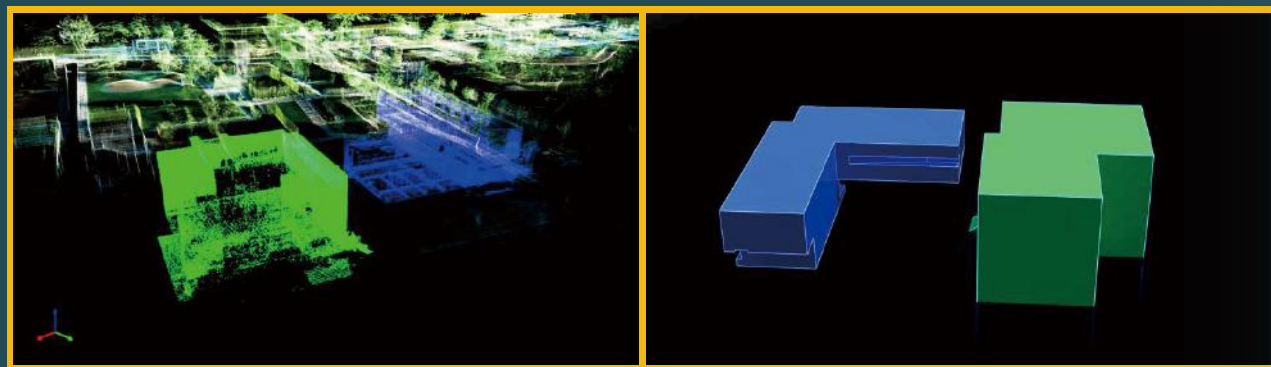


● **Parametric Reconstruction**

An intelligent point cloud registration algorithm based on feature extraction and matching generates the vectorized, lightweight, and editable parametric 3D model automatically.



● **One-stop Workflow**

Various types of functions include multi-map registration, volume calculation, distance measurement, mileage statistics, track editing, and offline generation of mesh.

Application



Topographic Mapping



Agriculture & Forestry Survey



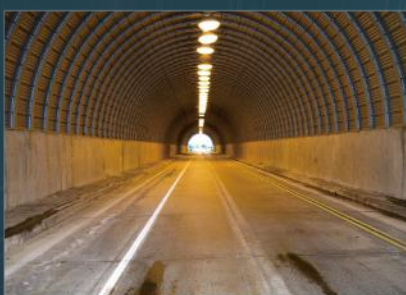
Engineering Survey



Emergency Mapping



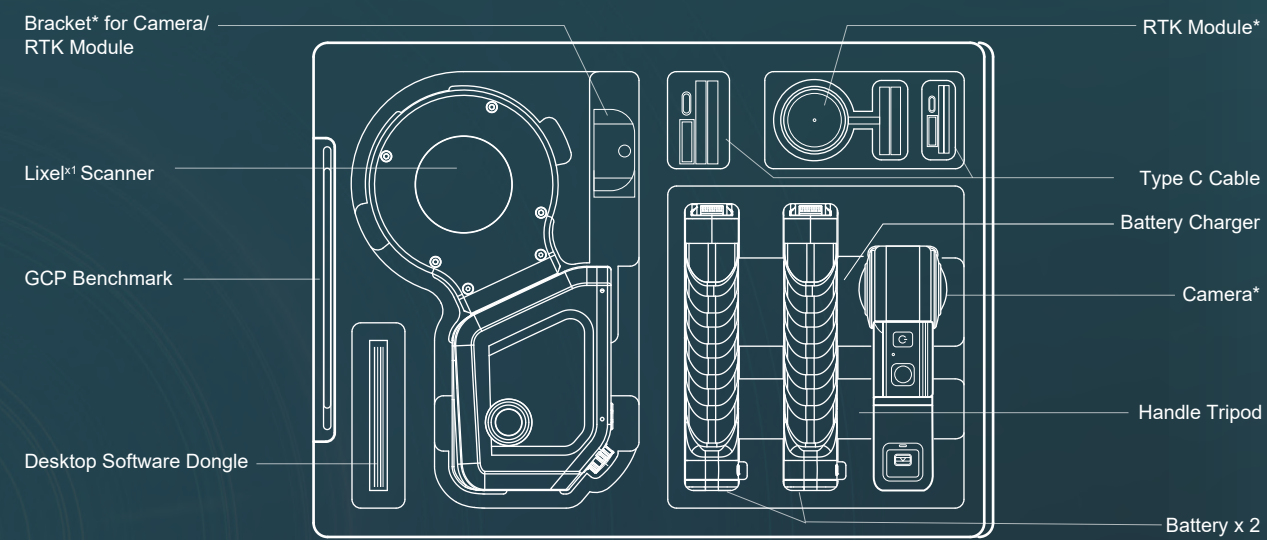
Volume Calculation



Underground Space Mapping

Technical Specifications

Operation Range	0.05 - 120 m
Laser	Class 1 / 905 nm
Channels of Resolution	16
Accuracy	< 2 cm
FOV	360 x 270°
Points/s	320,000
Processing	Real-time processing
Display	Live streaming point cloud
Carrier	Handheld / Backpack / UAV
Scanner Weight & Size	< 1.9 kg (with battery), 138×90×381 mm
Camera	Wide field×1, positioning×3
Operation Temperature	-20°C - 50°C
Battery Life	1.5 h
Single Scanning Time	60 min
Ingress Protection	IP54
Storage Capacity	1T SSD
Point Cloud Format	.las, .laz
Power Supply	V-mount 46.8 Wh, 14.4 V battery
Power Consumption	< 30 w



*Optional



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Lixel^{x1}

Handheld SLAM Scanner



Made by Sweden

Lixel^{x1} Handheld SLAM Scanner

Lightweight and highly integrated, the Lixel^{x1} real scene 3D reconstruction scanner powered by SatLab's next-generation SLAM technology allows you to obtain the colored point cloud and generate accurate models directly.

The self-developed 3D real-time reconstruction algorithm of Lixel^{x1} supports real-time data preview, model building while capturing data, and export for direct use without post-process, driving the digital era with breakthrough technologies.

United Design and Minimal Operation

Lixel^{x1}'s integrated design of LiDAR, visible-light camera, motion camera, high-precision inertial navigation technology, and high performance computing eliminates the tedious operation steps and makes your scan easier and simple. And the complex structure is of excellent heat-sinking capability.

Real-time Solution Takes the Lead

The real-time data decoding allows exporting the available data immediately after scanning, which is time-saving and efficient. And in the mobile software, you can monitor the reconstruction effect in real time to ensure the data quality.



Long-term Continuous Operation Breakpoint Scanning

60 minutes of ultra-long continuous operation time and high capability in resuming the scanning from the break-point.

No need for segmented scanning in large scenes and greatly improves the efficiency of measurement and data analysis.



Real-time Color Rendering

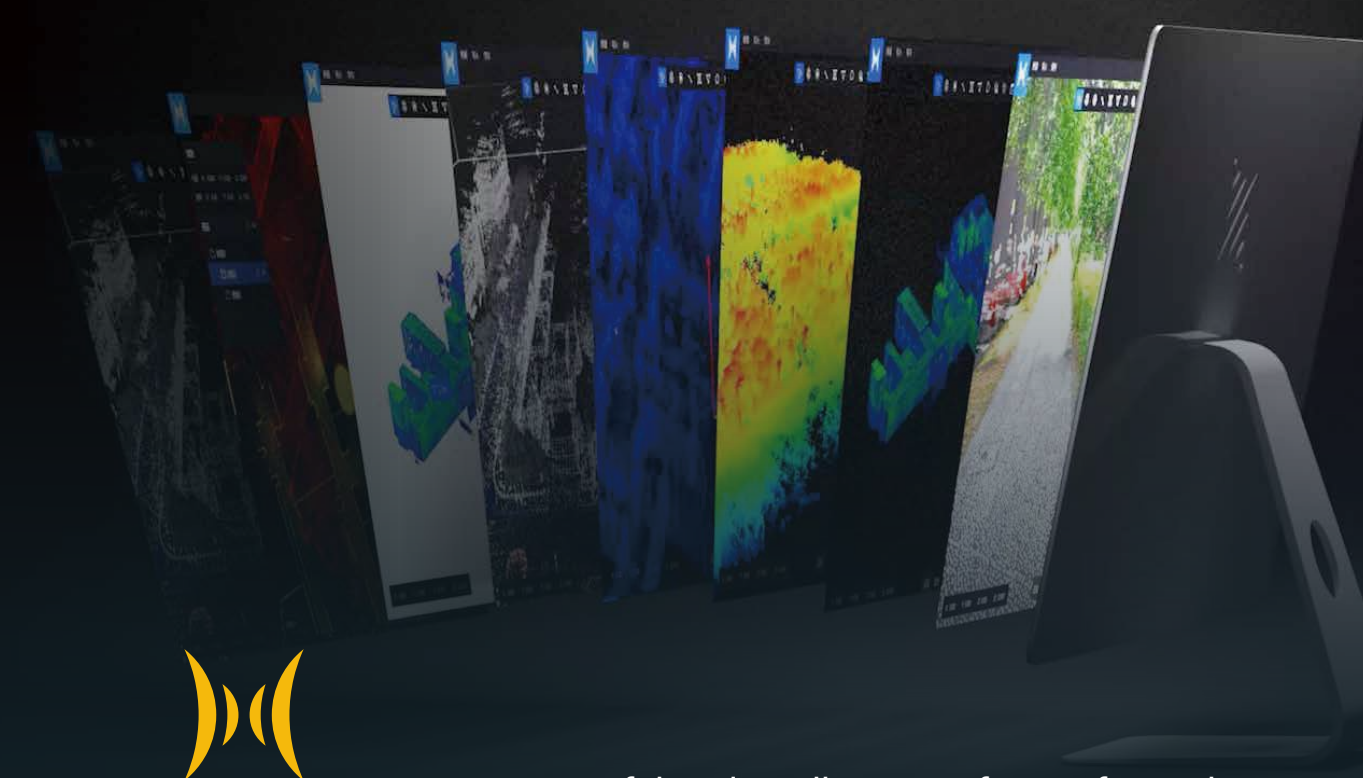
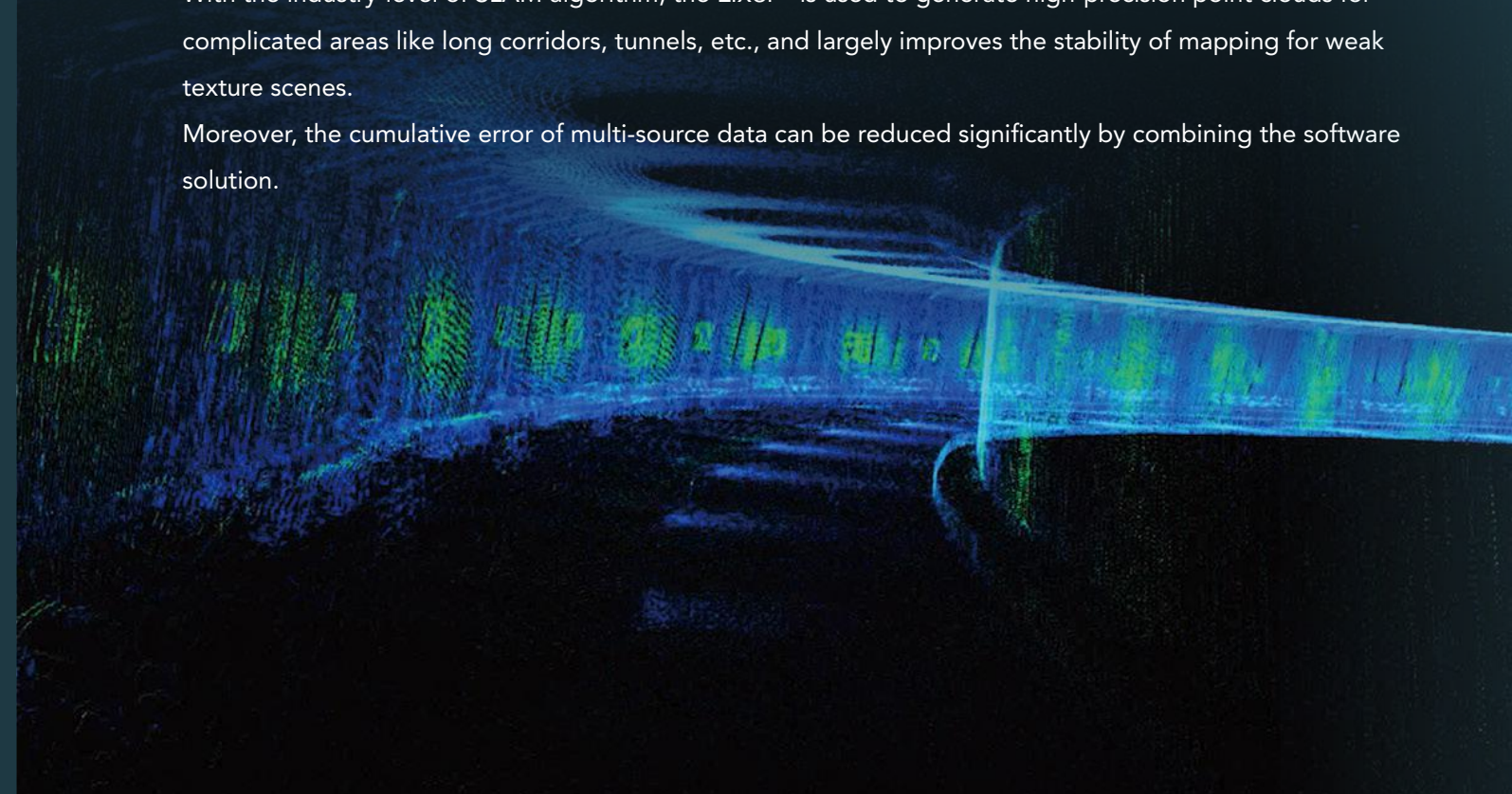
High-precision vision and laser fusion technology generate true color point clouds in real-time to twin the real world.



Robust and Reliable

With the industry-level of SLAM algorithm, the Lixel^{x1} is used to generate high-precision point clouds for complicated areas like long corridors, tunnels, etc., and largely improves the stability of mapping for weak texture scenes.

Moreover, the cumulative error of multi-source data can be reduced significantly by combining the software solution.



LixelStudio

A powerful and intelligent software for real-time 3D modeling, viewing, and post-processing.

● Everything is Monomer

Point cloud segmentation, semantic recognition, and editing of scenes and objects based on the deep learning of neural networks algorithm to perform sophisticated extraction of monomer.

