GOSLAM®

Lightweight To Go
Insight Into The Overall Situation

X1

Collision-Resistant Flying 3D Laser Scanning System



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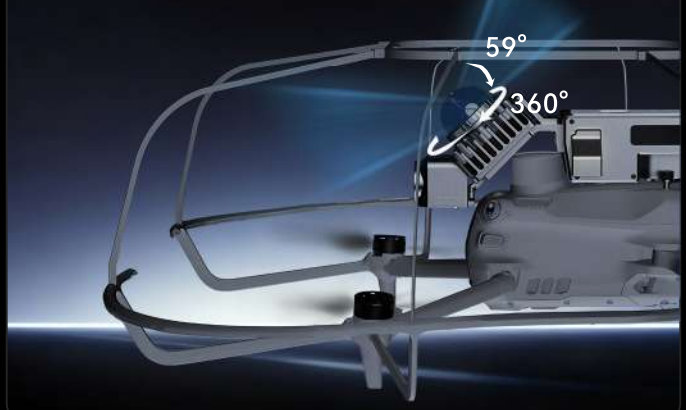
Lightweight And Boundary-Breaking, Defining The Future

The GoSLAM X1 scanner is customized for DJI Matrice 4T/4E drones.

It features a lightweight design and is compatible with DJI M4T/M4E flight system, balancing stable flight with reliable data acquisition. It is used for 3D scanning and modeling in enclosed space, aiding in exploration of limited space and unknown environment.



Scanning Angle



Scanning Speed

200,000
PTS/Sec

Laser Control Point



Camera-Laser Fusion



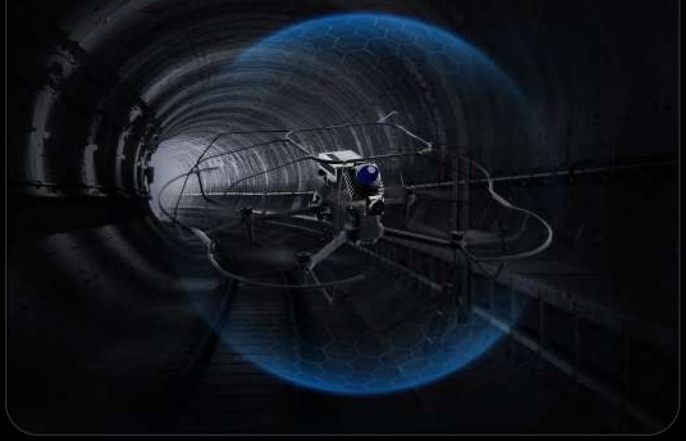
DJI M4T/M4E Plug To Use Design



5G Real-Time Data Return (5G Version)

Standard Configuration With Permanent 3D Gaussian Software

Anti-Collision Frame



Controllable Lighting



Point Cloud Data Can Be Viewed in Real Time on Remote Controller

Operators can intuitively grasp the dynamics of the working scene, view the flight scanning point cloud data in real time, and quickly adjust the flight path, greatly improving the safety and convenience of operation, and can complete real-time control without relying on additional equipment.



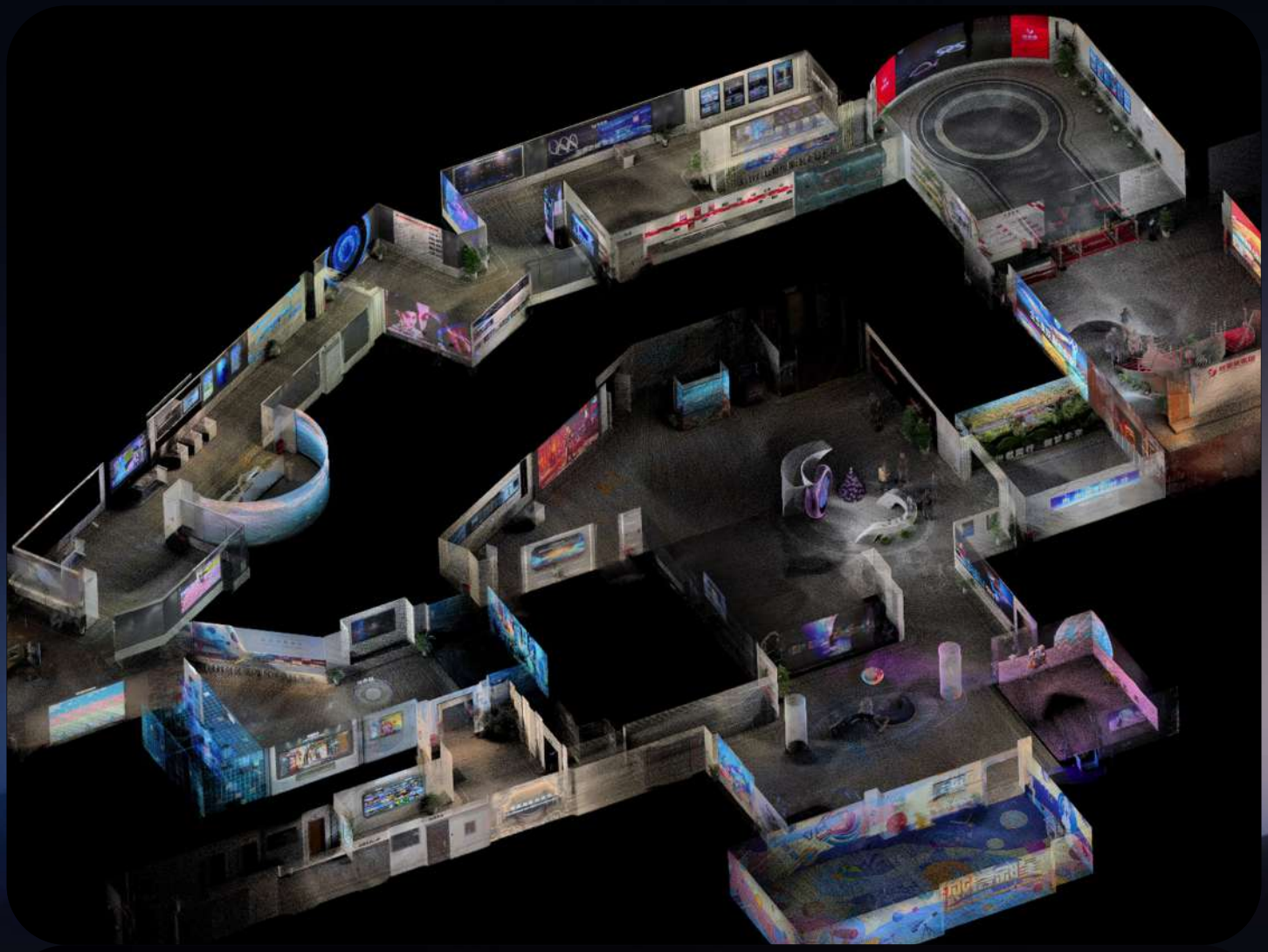
Compact Size, Easily Handles Small Space

With its compact design, it can easily navigate narrow alley and confined space. Combined with a high-precision laser and excellent SLAM algorithm, it can generate high-precision 3D data for users in areas inaccessible to personnel.



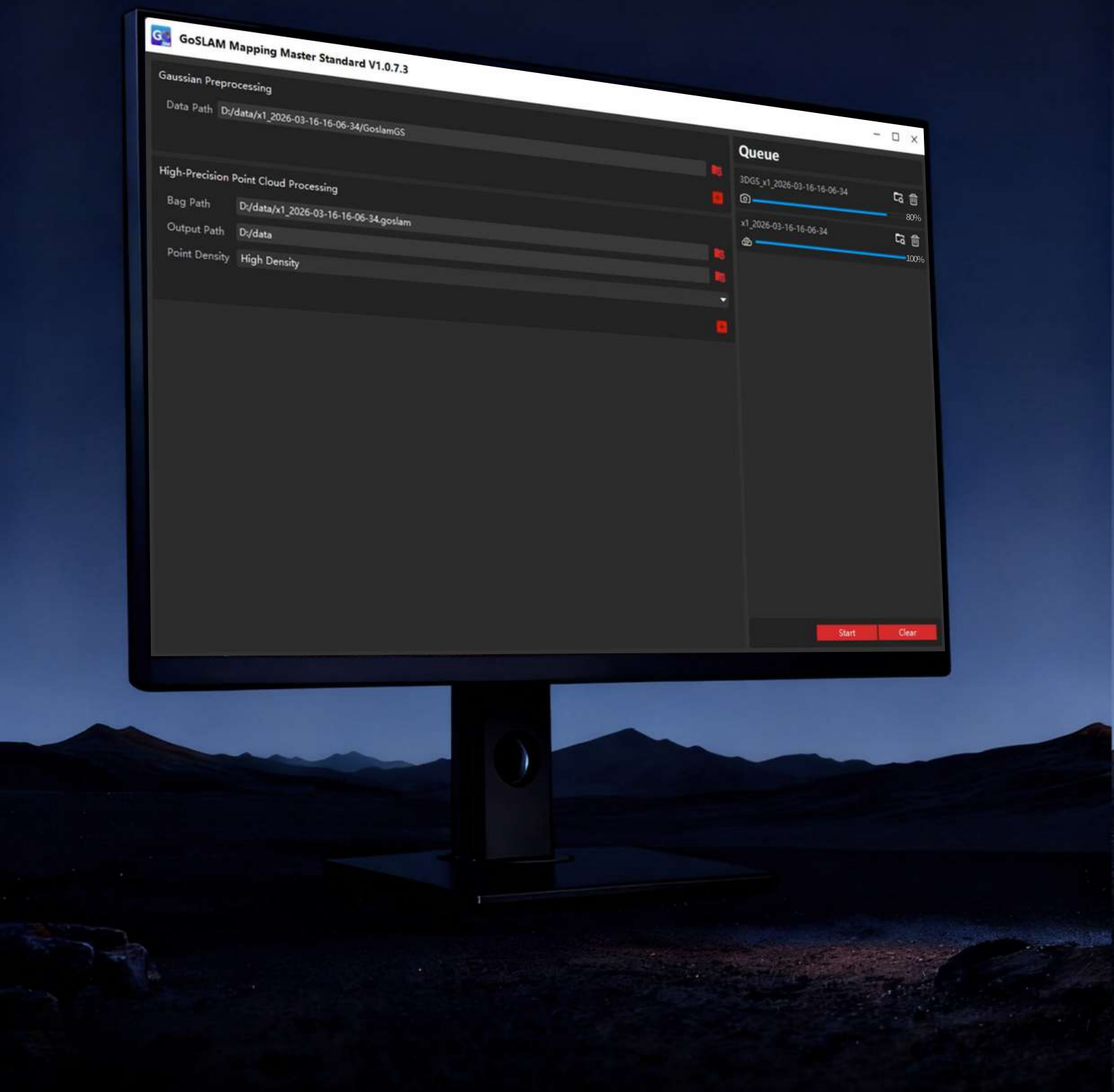
Real-Time Color Point Cloud

The device supports real-time synchronous output of color point cloud, with realistic color and uniform density, which can accurately present the structural features of the scene and be directly applied to rapid on-site identification and data analysis, providing reliable data support for real-time decision-making.



High-Precision Point Cloud Post-Processing

It supports high-precision post-processing of point cloud data, optimizes data quality through professional GoSLAM mapping algorithm, and generates more accurate and complete 3D point cloud to meet the needs of precision measurement applications.



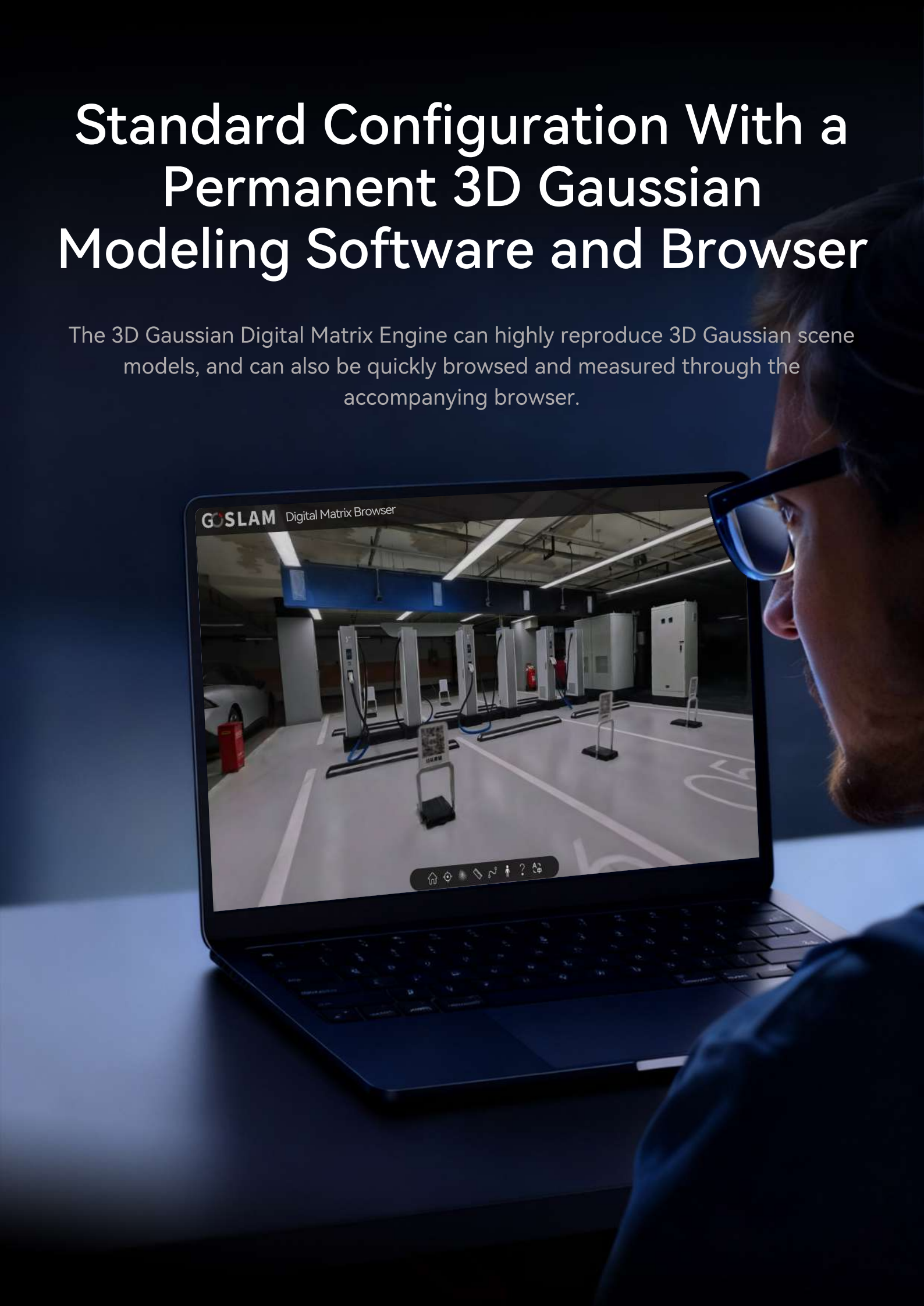
X1 5G Version, Linking Infinite Possibilities

The X1 5G version supports real-time online browsing and measurement of color point cloud from different locations, and provides instant field information for integrated command through the GoSLAM online cloud platform.



Standard Configuration With a Permanent 3D Gaussian Modeling Software and Browser

The 3D Gaussian Digital Matrix Engine can highly reproduce 3D Gaussian scene models, and can also be quickly browsed and measured through the accompanying browser.



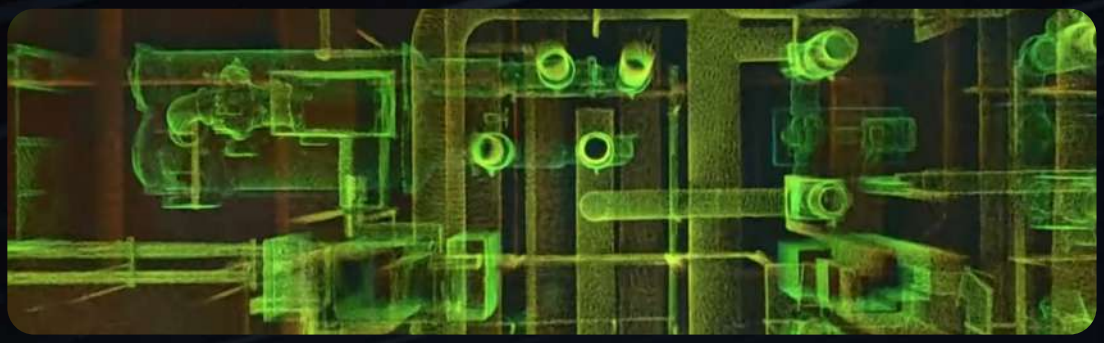
Break-Point Resume Scanning Technology

For large scene and complex environment where complete data collection is impossible in one scanning and manual stitching is not desired. GoSLAM X1 fully supports resume scanning from break-point. You can replace the battery or stop scanning at any time. Real-time scanning results and post-processing results can be automatically registered for unlimited scans without the need for secondary stitching.



Industry Applications

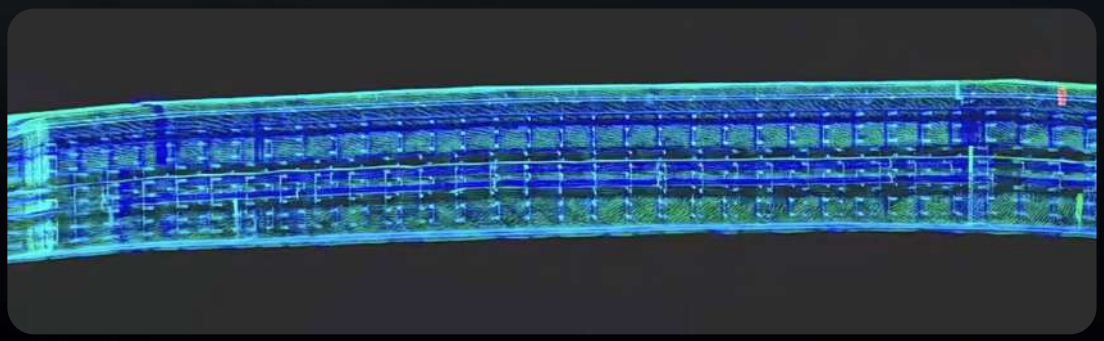
The GoSLAM X1 collision-resistant flying 3D laser scanning system is highly efficient and can be used for laser scanning and mapping in scenarios such as pipelines, utility tunnels, and underground wells. It can also assist in emergency rescue, explore unknown space, and obtain 3D data of areas that are difficult for personnel to access, reducing human intervention.



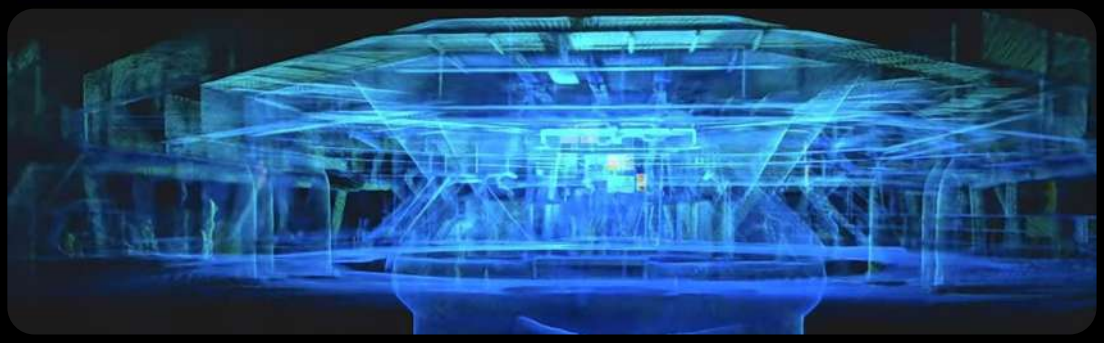
Pipeline



Goaf



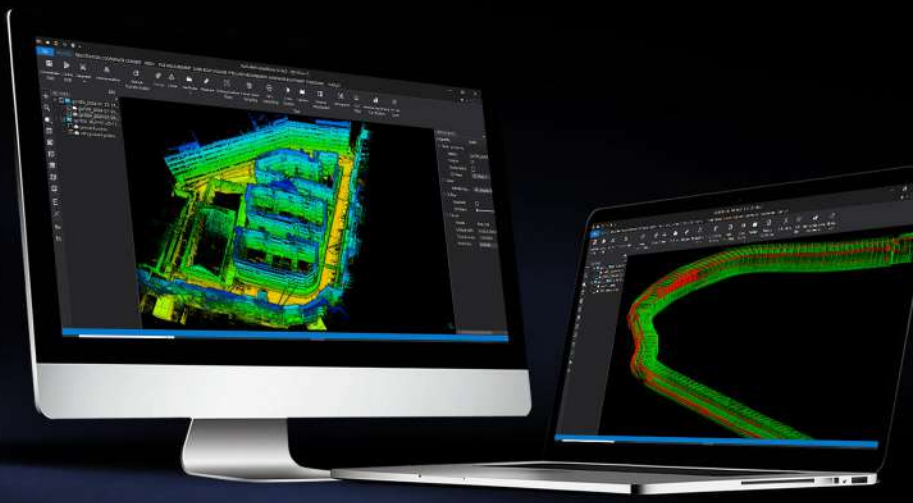
Utility Tunnel



Tank

Powerful Industry Data Processing Software

GoSLAM LidarWorks software has numerous industry application modules which can provide solution for various industries.



Mining Module

The mining module intelligently extracts the main body, central axis, and continuous cross-section of the mine tunnel, accurately filters out interference, supports over-excavation and under-excavation analysis as well as deformation analysis, and provides core data for volume calculation, construction analysis and safety monitoring.

Heap Measurement Module

Based on point cloud data, volume and surface area can be measured with one click, without the need for model encapsulation, and custom planar adjustment is supported.

Forestry Module

This module uses intelligent algorithm to perform high-precision single-tree segmentation and parameter extraction (tree height, diameter at breast height, crown width, volume) with one click, while retaining ground points and supporting large coordinate output, providing a precise data foundation for forestry survey.

Sand Boat Metering Module

By scanning point cloud data of sand boat in both empty and fully loaded states, the volume of sand and gravel transported can be accurately calculated, forming a complete data chain that provides a reliable basis for water resources law enforcement and transport capacity statistics.

Pipeline Measurement Module

This module uses scanned point cloud to draw a point and line table of gas pipelines. It can extract coordinates and burial depth with one click and archive them in project form. It supports Excel output, which facilitates data submission and secondary retrieval.

Digital Asset Module

The digital asset module can package point cloud data into an executable file, supporting quick preview and secure sharing, enabling efficient and convenient digital asset management and dissemination.

Product Parameters(Excluding Aircraft)

Product Name	X1	X1 5G
Compatible Models	DJI Matrice 4T/4E	DJI Matrice 4T/4E
Scanning Technology	SLAM	SLAM
Scan Radius	40 m @ 10% Reflectivity 70 m @ 80% Reflectivity	40 m @ 10% Reflectivity 70 m @ 80% Reflectivity
Scanning Frequency	200,000 Points/Sec	200,000 Points/Sec
Scanning Accuracy	Maximum 1cm	Maximum 1cm
Scanning FOV	360°×59°	360°×59°
Processing Method	Real-Time Color, Post-Processing	Real-Time Color, Post-Processing
Image Sensor	5MP, Global Shutter	5MP, Global Shutter
Lighting And Scanning Control	Aircraft Remote Controller	Aircraft Remote Controller
Real-Time Scanning Preview	Aircraft Remote Controller	Aircraft Remote Controller
Storage	128G (TF Card)	128G (TF Card)
5G Data Return	—	Yes
Break-Point Resume Scanning Technology	Support	Support
Operating Temperature	-20℃-50℃	-20℃-50℃
Flight Time	Approx. 15 Minutes	Approx. 15 Minutes
Length X Width X Height (Including Anti-Collision Frame)	72x65x23cm	72x65x23cm

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