LiCam

High-Fidelity Tri-Camera System for 3DGS



1/1.6-inch
Starlight-Grade Square Sensors

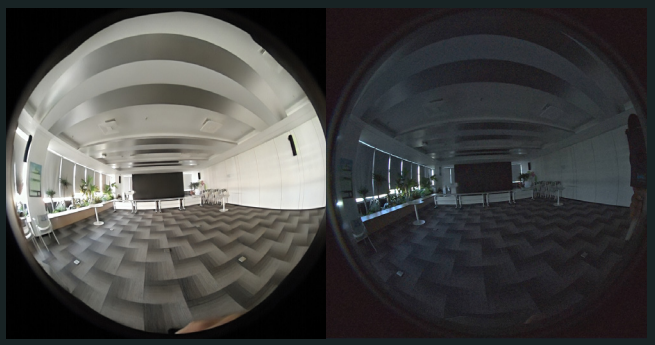
3×12MP
Tri-Camera Array

±2cm
Survey-Grade RGB Point Clouds

Four Core Advantages

From high-fidelity capture to measurable deliverables—building a complete real-world spatial data capability

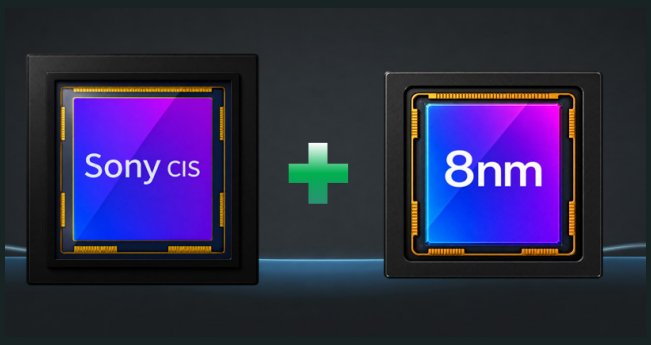
01 Clear in Low Light, True in Every Detail



Starlight-grade sensors capture fine textures even in dimly lit scenes.

Three 1/1.6-inch Sony STARVIS 2 starlight-grade square sensors with 2 μm pixels preserve more texture and color in low-light and high-contrast environments, providing high-quality imagery for 3DGS reconstruction.

02 Triple-Camera Sync, Consistent Color



An independent image-processing core keeps color and detail in perfect harmony.

A dedicated imaging processor manages all three sensors to ensure consistent color reproduction and precise time alignment. An 8 nm compute chip supports stable performance during extended capture sessions.

03 3D Reconstruction, Clear and Complete



From segmented captures to a complete scene—Gaussian reconstruction handles it with ease.

High-resolution tri-camera imagery and proprietary Gaussian reconstruction deliver clear textures and true-to-life color. Resume interrupted scans and automatically fuse multiple projects, enabling large scenes to be captured in segments and delivered as one complete 3DGS model.

02 What You See Is What You Get—Precise and Measurable



A survey-grade point cloud is not only true to life but also accurately measurable.

Integrated survey-grade LiDAR and high-precision SLAM establish real-world scale for 3DGS. With a point-cloud thickness of ±2 cm, deliverables are both photorealistic and measurable. Integrated GNSS supports georeferenced output for surveying, modeling, and engineering analysis.

A Complete 3DGS + SLAM + GNSS Processing Solution

Single Project



Multi-Project



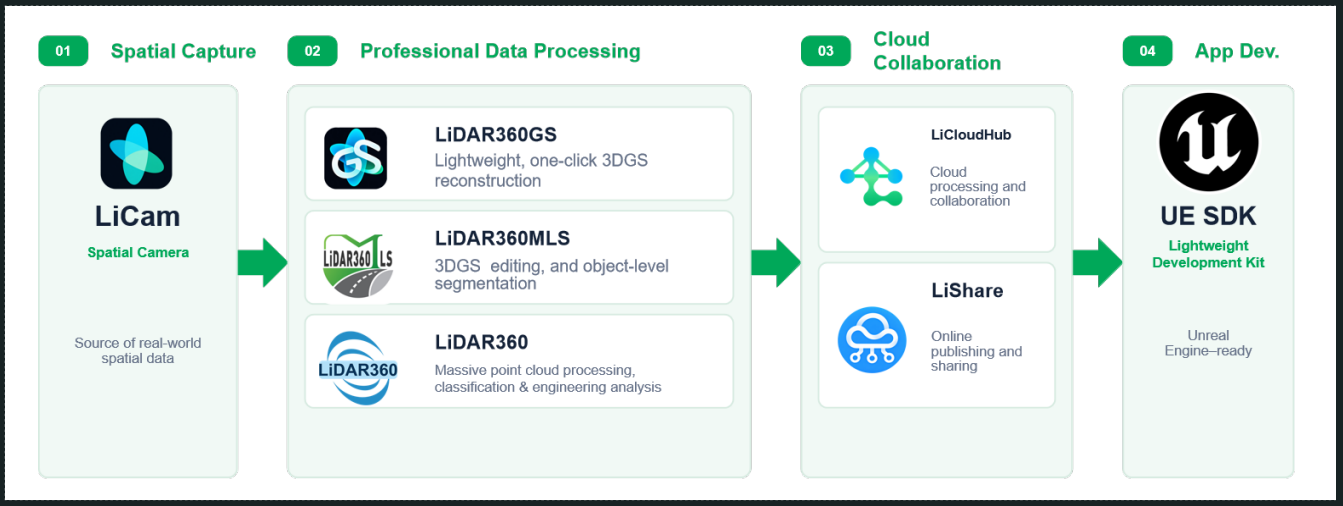
Air-Ground Fusion



Deliverables: 3DGS Models | RGB Point Clouds | Panoramic Images

Integrated Hardware and Software Ecosystem

LiCam hardware + LiDAR360 software + cloud publishing across the entire spatial data lifecycle



Three application areas and six scenarios that turn real-world spatial data into practical business value.

Cultural Tourism and Heritage Preservation



01 VR Tours for Museums and Scenic Areas

Challenge: Conventional photos and panoramas lack a true sense of space and cannot deliver a fully immersive experience.

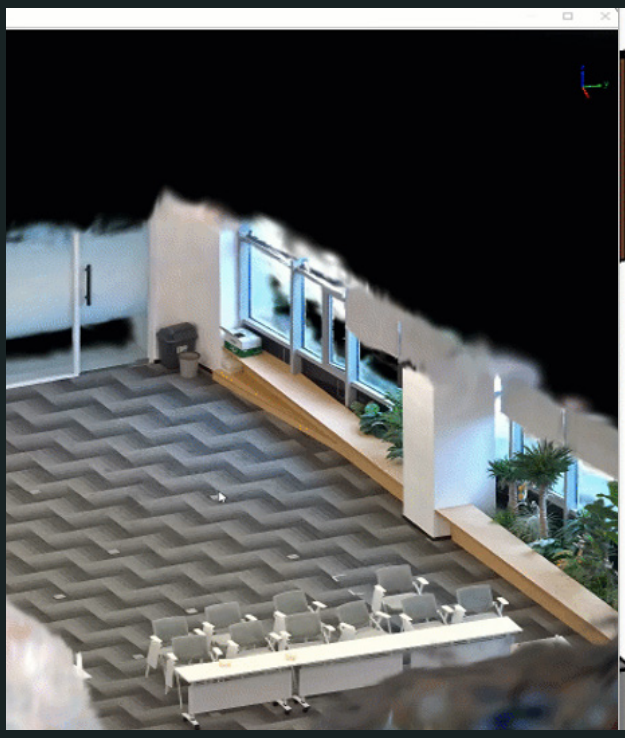
Value: High-fidelity 3DGS reconstructs real environments for immersive tours and remote visits.

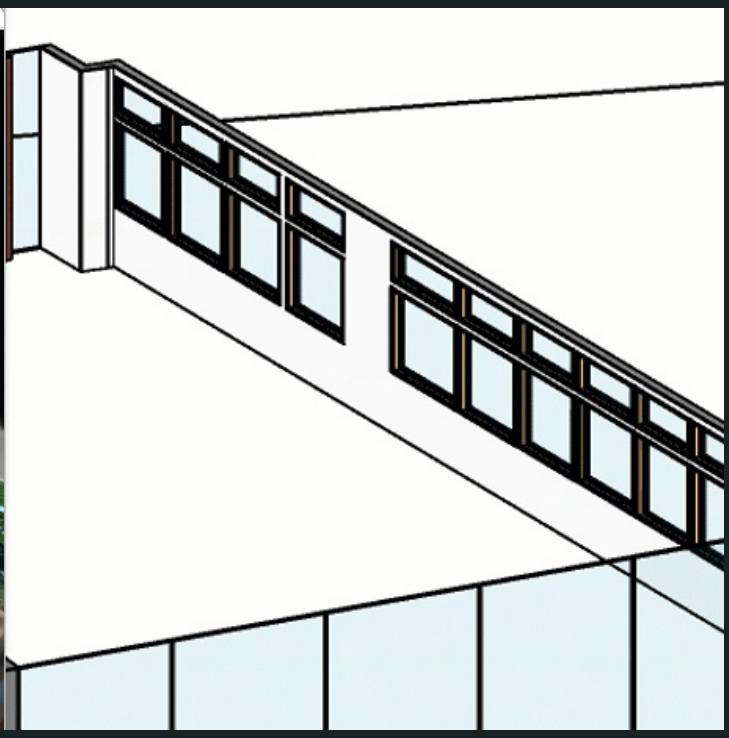
02 Digital Preservation of Historic Architecture

Challenge: Architectural details require high-resolution documentation, while conservation and research depend on complete spatial data.

Value: Preserve color, texture, and spatial structure to support digital archiving, conservation research, and restoration.

Cultural Tourism and Heritage Preservation





03 Scan-to-BIM and As-Built Verification

Challenge: As-built conditions are difficult to compare quickly with design models, and installation deviations are difficult to identify visually.

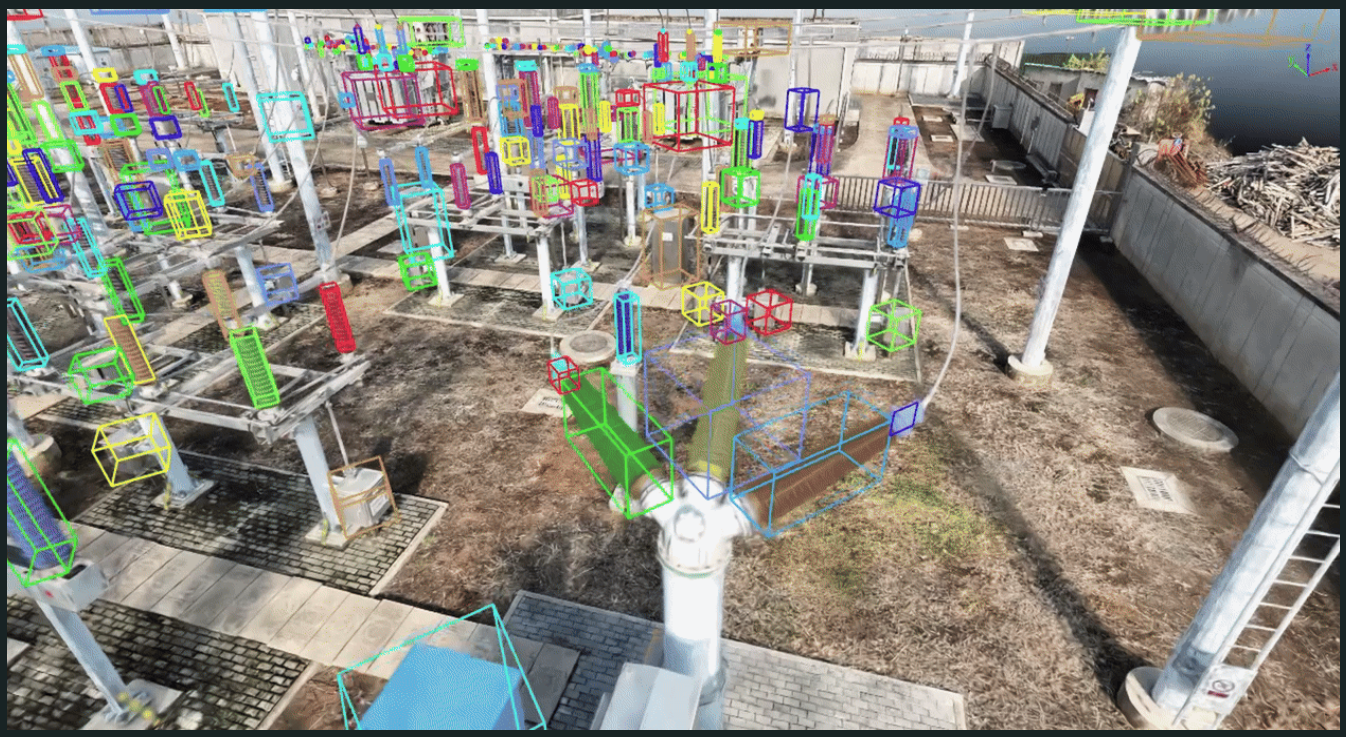
Value: Survey-grade point clouds support Revit-based scan-to-BIM workflows, while 3DGS provides photorealistic site context.

04 Immersive Real Estate Visualization

Challenge: Photos, videos, and panoramas cannot fully convey layouts, scale, and interior details.

Value: 3DGS reconstructs real properties for immersive walkthroughs and remote viewing.

Stations, Energy & Infrastructure



03 Real-World Scene Capture for World Models

Challenge: AWorld-model training requires high-quality real-world 3D data with accurate spatial relationships.

Value: A single capture produces 3DGS models, RGB point clouds, and panoramic images as multimodal scene data.

04 Substation High-Precision Modeling

Challenge: World-model training requires high-quality real-world 3D data with accurate spatial relationships.

Value: With integrated aerial-ground capture and multi-project Gaussian splatting, LiCam delivers true-color point clouds in which fine details, such as nameplate text, are rendered clearly.

Technical Specifications

Specifications

Mapping Method	LiDAR-SLAM + 3DGS	**Control Method**	App / On-Device Buttons
Point Cloud Thickness	±2 cm	**Sensor**	Sony STARVIS 2 (starlight-grade)
LiDAR Range	40 m	**Sensor Size**	1/1.6-inch square sensor (1:1 aspect ratio)
Point Rate	384,000 points/s	**Effective Resolution**	12 MP × 3 (left, right, and front)
LiDAR FOV	62° × 360°	**Pixel Size**	2 µm
GNSS	Integrated (georeferenced output)	**Capture Frame Rate**	5 fps, synchronized across all three sensors
Battery Capacity	3,300 mAh (removable)	**RGB Point Cloud**	LAS LiData
Battery Runtime	120 minutes	**Panoramic Images**	JPG
Storage Capacity	512 GB	**3D Gaussian Splatting**	lisplat ply



Map The World In 3D
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