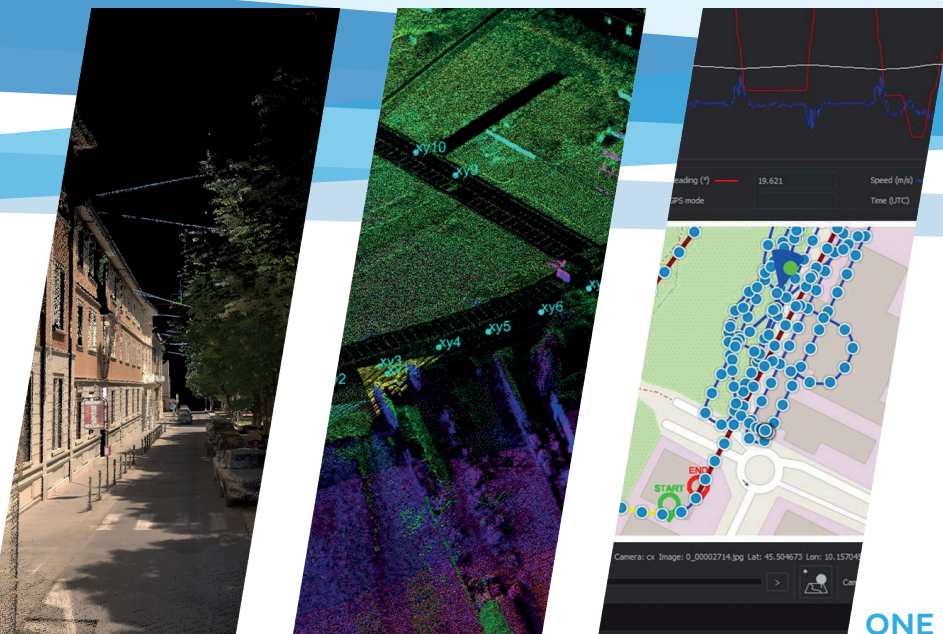


MOBILE MAPPING CATALOG 2026

[stonex.it](https://stonex.it)



**STONEX**  
**Movemap**

**ONE SOLUTION. ANY ENVIRONMENT.**

Movemap is an advanced mobile mapping system designed to deliver fast, efficient, and accurate reality capture across any surveying scenario. Compact, lightweight, and built for rapid deployment, it empowers true single-user operations with a seamless plug-and-play experience and tool-less setup—ready in seconds.

Powered by a **300-meter range LiDAR sensor**, a high-precision inertial navigation system, and a fully integrated 360° panoramic camera, Movemap combines performance, mobility, and operational simplicity within a single unified solution.

Its key strength lies in its **unmatched versatility**: seamlessly transitioning from a vehicle-mounted system to a wearable backpack for hard-to-reach areas, or to an aerial solution mounted on drone. One system, any environment—ensuring complete, efficient, and continuous data capture from the ground to the sky.



#### ALL-IN-ONE SOLUTION

A fully integrated system combining hardware, software, and processing workflow within a single seamless solution. From data acquisition to final deliverables, every component is designed to work in perfect harmony—eliminating complexity and reducing setup time.

No need for multiple devices or third-party integrations: everything is optimized to ensure efficiency, reliability, and consistent results across every project.



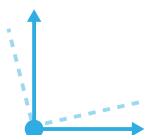
#### TOOL-LESS BY DESIGN

The system features a fully integrated architecture with no loose cables to manage, and no tools needed for assembly. Everything can be set up in seconds—arrive on site and start scanning immediately.



#### INTUITIVE CONTROL. COMPLETE CONFIDENCE

The user-friendly WebApp keeps all essential information clearly in view—everything you need is exactly where you expect it, ensuring an error-proof workflow in the field. Back in the office, the Cube-map software, with its multiple modules and advanced features, provides a complete solution tailored to your needs, giving you full quality control through clear and intuitive visual reports.



#### USER-CONTROLLED BORESIGHT CALIBRATION

Boresight calibration ensures maximum georeferencing accuracy of the point cloud by precisely estimating the angular offsets between the INS and each sensor. The system allows users to perform boresight calibration autonomously—no factory intervention required.



## DRIVE. FLY. WALK.

The system can be rapidly installed on a wide range of **vehicles**, adapting to different roof configurations through a fast, stable, and secure solution.

Thanks to its modular design, it can be quickly reconfigured with optional kits to suit any scenario. Mount it on a **backpack** to access narrow streets, pedestrian areas, or restricted traffic zones—ensuring continuous data capture where vehicles cannot operate.

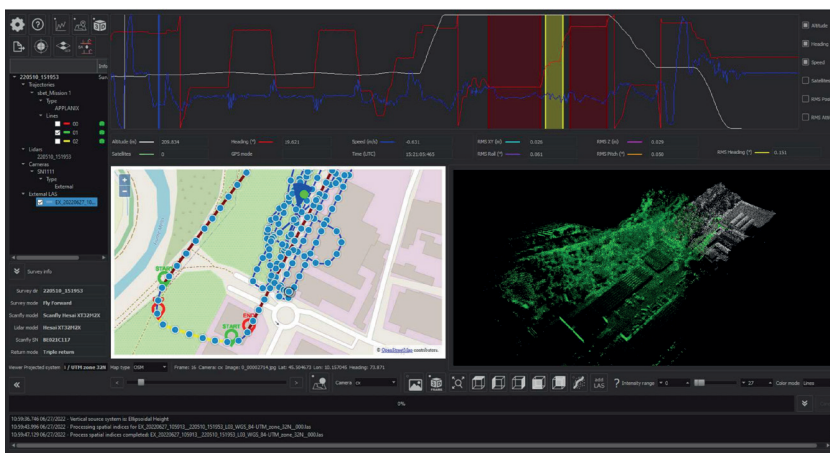
Alternatively, install the LiDAR unit on a DJI **drone** through a SkyPort adapter and by simply replacing the camera, extending your survey from ground to air. This flexibility allows you to achieve complete coverage from every perspective, with a single, unified system.





Process your Movemap data seamlessly with Cube-map, the dedicated office software featuring multiple modules designed to meet every workflow requirement.

The base version enables **full data processing**, including LiDAR and image **boresight calibration**, advanced **georeferencing** management, and precise trajectory handling. Integrated quality control tools provide intuitive visual diagrams, synchronized with map-based trajectory visualization for immediate validation of survey accuracy.

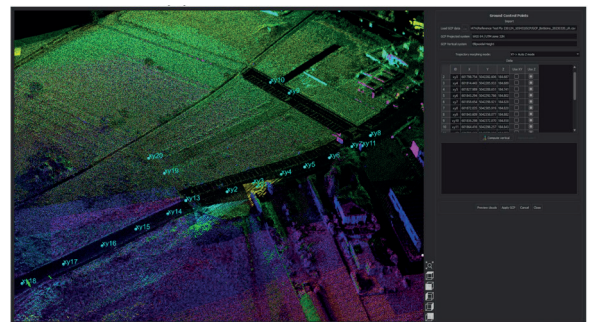


The result is a fully optimized, colored, and accurately oriented point cloud, along with high-quality panoramic image extraction (available in vehicle and backpack modes).

## CUBE-MAP REFINE

Enhance your 3D reconstruction quality with the dedicated REFINE module.

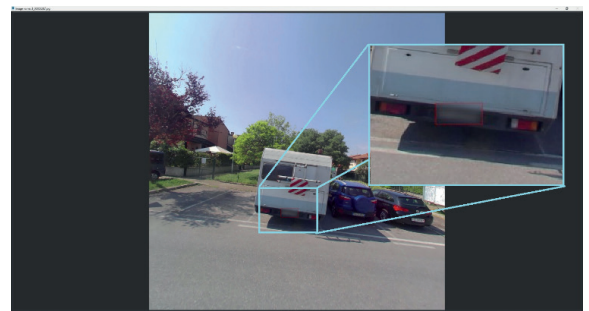
Define Ground Control Points (**GCPs**) to anchor your data to known coordinates and achieve maximum accuracy. Improve alignment using **strip adjustment** tools, or leverage advanced **SLAM algorithms** for reliable results even in environments with denied or degraded GNSS signals.



## CUBE-MAP PRIVACY

Ensure full compliance with privacy regulations by adding automated anonymization capabilities.

The PRIVACY module **detects and blurs** faces and license plates in panoramic imagery, allowing you to safely manage and share data in accordance with data protection requirements.



## CONFIGURATIONS

|          |                             |
|----------|-----------------------------|
| Vehicle  | Standard                    |
| UAV      | Extension,<br>DJI M300/M350 |
| Backpack | Extension                   |

## LIDAR

|                          |                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------|
| Sensor Model             | Hesai XT32M2X                                                                                     |
| Max Range                | 300 m                                                                                             |
| Min Range                | 0.5 m                                                                                             |
| Return number            | 3                                                                                                 |
| Scanning Point Frequency | 640.000 pts/s (single return)<br>1.280.000 pts/s (dual return)<br>1.920.000 pts/s (triple return) |
| Laser Class              | Class 1<br>eye-safe per IEC/EN 60825-1:2014                                                       |
| Channels                 | 32                                                                                                |
| Wavelength               | 905nm                                                                                             |

## CAMERA

|              | Car/backpack | UAV            |
|--------------|--------------|----------------|
| N° of pixels | 60.5 Mpx     | 24 Mpx         |
| FOV          | 360°         |                |
| Focal Length |              | 16 mm          |
| Sensor size  |              | 23,5 x 15,7 mm |

## GNSS

|                           |                                          |
|---------------------------|------------------------------------------|
| Satellites constellations | GPS/GLONASS/Galileo/BeiDou/<br>SBAS/QZSS |
| Channels                  | 336                                      |
| Operating mode            | PPK                                      |

## IMU

|                       |                                    |
|-----------------------|------------------------------------|
| Data rate             | 200Hz                              |
| Accuracy <sup>1</sup> | Roll/Pitch 0.025°<br>Heading 0.08° |

## SYSTEM

|                          |                                      |
|--------------------------|--------------------------------------|
| Precision <sup>1,2</sup> | 3cm                                  |
| Accuracy <sup>1,2</sup>  | 3cm                                  |
| Data storage             | 256GB – External USB 3.2 Flash Drive |
| Communication            | Wi-fi                                |
| Operating mode           | Capacitive touch button<br>WebApp    |
| Processing mode          | Cube-map                             |

## ELECTRICAL SPECIFICATION

|                                 | Car/backpack       | UAV     |
|---------------------------------|--------------------|---------|
| Power consumption               | 30W                |         |
| System supply voltage           | 12-24V             |         |
| Operating time (single battery) | 2h (hot swappable) |         |
| BU Battery                      | ✓                  |         |
| Battery input voltage           | 14,4V              |         |
| Battery capacity                | 6900mAh            |         |
| External power                  | Lemo               | Skyport |

## PHYSICAL SPECIFICATION

|                       |                                |
|-----------------------|--------------------------------|
| Weight                | 14.5 kg                        |
| Size                  | 714 mm x 594mm x 417mm         |
| Operating temperature | -10°C to +40°C (14°F to 104°F) |
| Waterproof/Dustproof  | IP55                           |

1. PPK performance in open-sky GNSS environment
2. RMS 1σ, measured at 50m distance.

## CUBE-MAP SYSTEM REQUIREMENTS

|                  | Minimum                                                                                         | Recommended                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Operating system | Windows 10 64bit                                                                                | Windows 11 64bit                                                                              |
| CPU              | Quad-core processor ≥ 3.0 GHz<br>Intel Core i5 (10th gen or newer) or<br>AMD Ryzen 5 equivalent | 8-core processor, ≥ 4.0 GHz turbo<br>Intel Core i7/i9 (13th gen or newer) or<br>AMD Ryzen 7/9 |
| Video Resolution | 1920x1080                                                                                       | 1920x1080                                                                                     |
| Storage          | SSD                                                                                             | NVMe SSD                                                                                      |
| RAM              | 16 GB DDR4                                                                                      | 64 GB DDR4/DDR5                                                                               |
| GPU              | NVIDIA GPU with CUDA capability<br>4 GB VRAM                                                    | NVIDIA RTX series with CUDA<br>capability<br>>8 GB VRAM                                       |

## EUROPE HQ

Stonex is an Italian company, based near Milan. With over 200 qualified distributors worldwide, it is one of the world's leading companies in measurement and survey.

Stonex products combine the most advanced technologies with a practical design to simplify your daily work. Everyone's needs are met thanks to a team that is able to handle any pre- and post-sales request.

## USA HQ

The Stonex Headquarters in North America is located in Concord, New Hampshire.

With the USA Headquarters as a base, Stonex has the opportunity to be closer to the needs of its American customers through greater territorial coverage and strengthening of global business.



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