



LIDAR ITALIA

HARDWARE & SOFTWARE

LIDAR ITALIA

LIDAR ITALIA's force is the natural union between two complementary companies: JP Droni Srl, specialized in remote sensing, inspection and industrial monitoring services with drones, and GTER Srl, the Italian reference for topography, data analysis and GNSS positioning.

We have experience in several european countries, with small and big Customers.

In addition, we are prepared to face the current and emerging challenges.

ABOUT US:

- SERVICE:

We provide full mapping services, with certified drone operators for LIDAR and photogrammetric surveys. We operate both from above and from the ground, with backpack solutions. Our services include data analysis, processing and also CAD reporting.

- R&D:

LIDAR ITALIA is focused on R&D, in order to find innovative solutions for everyday problems. Our patent pending solutions can really make the inspection work easier. We use both the hundreds hour of flight experience and AI knowledge to provide tailor-made services for our Customers.

- VAR (Value-Added Reseller):

We are the official and exclusive reseller for Italy of Green Valley International (GVI) products: LIDAR sensors, both for drone and ground applications and software. We offer a complete support to our customers, from the best fit product selection, to learning and assistance.

SERVICE

LIDAR ITALIA provides different types of services:

- Previsional approach

Our service starts with periodic monitoring: we compare data over time to prevent critical issues.

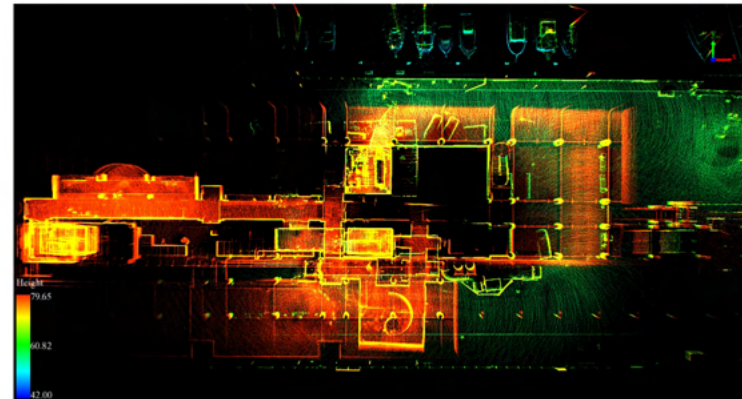
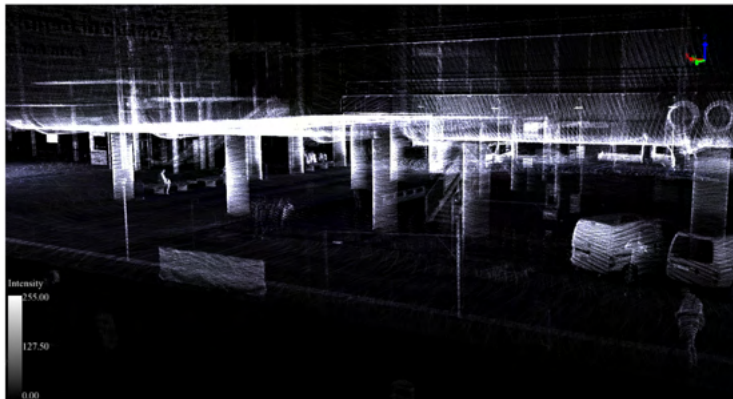
- Project approach

We offer turnkey solutions, from pre-relief design to data acquisition, processing and delivery of results.

- Consequence based approach

We can do both surveys and investigations, acquire and process data to avoid issues in the future.

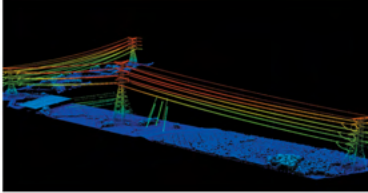
Our technology and our installations are effective for indoor and outdoor.



R&D - YOUR CUSTOM SOLUTION

LIDAR ITALIA develops custom monitoring and surveys for different needs

LIDAR SURVEY



LIDAR from UAV allows to make 3D complete survey in very huge areas with high morphological complexity. We can calculate DTM also in area with high vegetation coverage.

DISPLACEMENT MONITORING



Products and services, GNSS based, for monitoring of millimetric displacement in infrastructure, landslide, subsidence areas, dams. The system includes a web dashboard and an alarm manager.

AUTONOMOUS FLIGHT



With our patent pending solution for autonomous guide on linear infrastructure, our UAVs can provide high data quality with a less effort on the field.

MULTISENSOR



LIDAR ITALIA disposes of several type of sensors for monitoring and reliefs, LIDAR, RGB and Thermal high resolution, Multispectral and more customizable solution like gas or pressure sensors.

**YOUR
CUSTOM
SOLUTIONS**



LIDAR SURVEY

Services and support for 3D survey from LIDAR both aerial and terrestrial

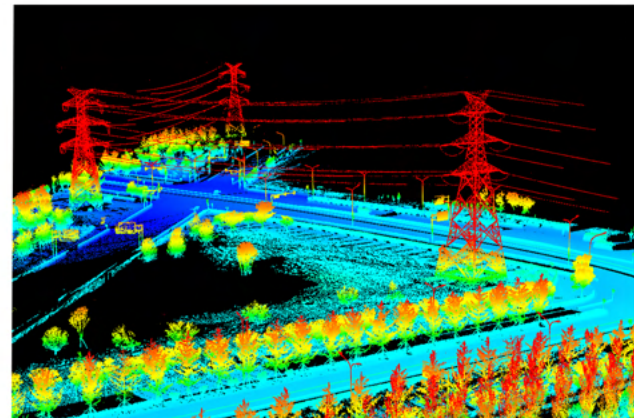
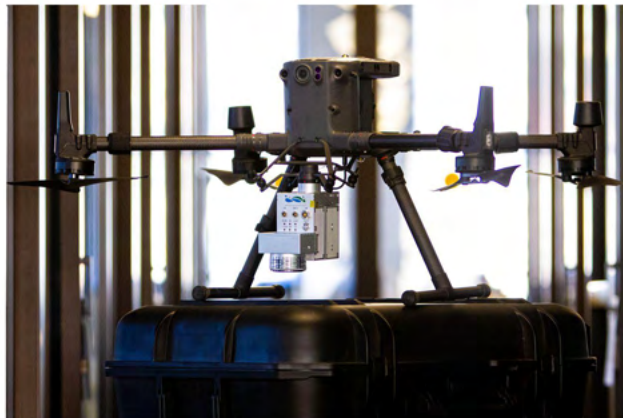
We provide full services for planning 3D survey, executing flights and processing data.

With a complete fleet of UAV and LIDAR sensors (both for flight and for ground use), we can operate in huge or small areas, in different environmental conditions and morphological features.

LIDAR from UAV is the right way for 3D modeling areas with vegetation, to classify ground, trees, building and infrastructures.

LIDAR ITALIA is the right partner for your 3D surveying needs: with an heterogeneous team which includes UAV pilot, expert in 3D processing, field survey, geodesy and geomatic.

We also provide training services and italian exclusive reselling of GVI LIDAR products to allow our clients to be autonomous in acquisition and management of their amount of data.



DISPLAYCEMENT MONITORING

DISPLAYCE: IoT solution for monitoring and Early-Warning of displacements

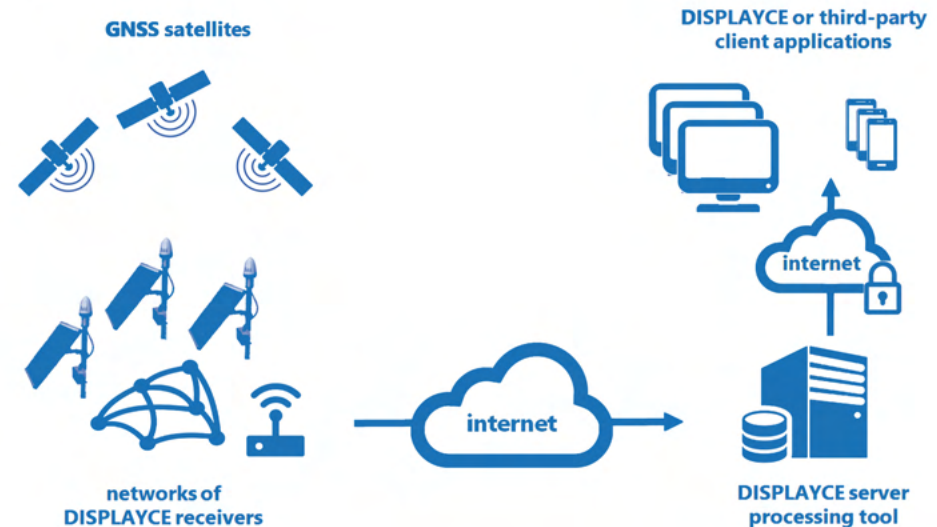
DISPLAYCE is a **solution** for the **automatic and continuous monitoring** and **early-warning** of surface deformation of ground, buildings and critical infrastructures.

DISPLAYCE sensors are **light, small and completely autonomous** from the point of view of data transmission and power supply.

DISPLAYCE is **complete**: it includes everything needed for monitoring: GNSS sensors, real time data transmission system, measurements acquisition and processing software, client application for displaying results, e-mail alert system.

DISPLAYCE is cost-effective if compared to instrumentation traditionally used for these applications

DISPLAYCE has been used mainly for monitoring of landslides, river erosion, bridges, dams, subsidence and natural gas storage sites.



AUTONOMOUS FLIGHT

Autonomous guide and defect detection: AI for auto flight missions and reporting

We have developed a **full integrated intelligent and autonomous system**, with sophisticated algorithms to guide our drones only over the needed infrastructure, in autonomous way.

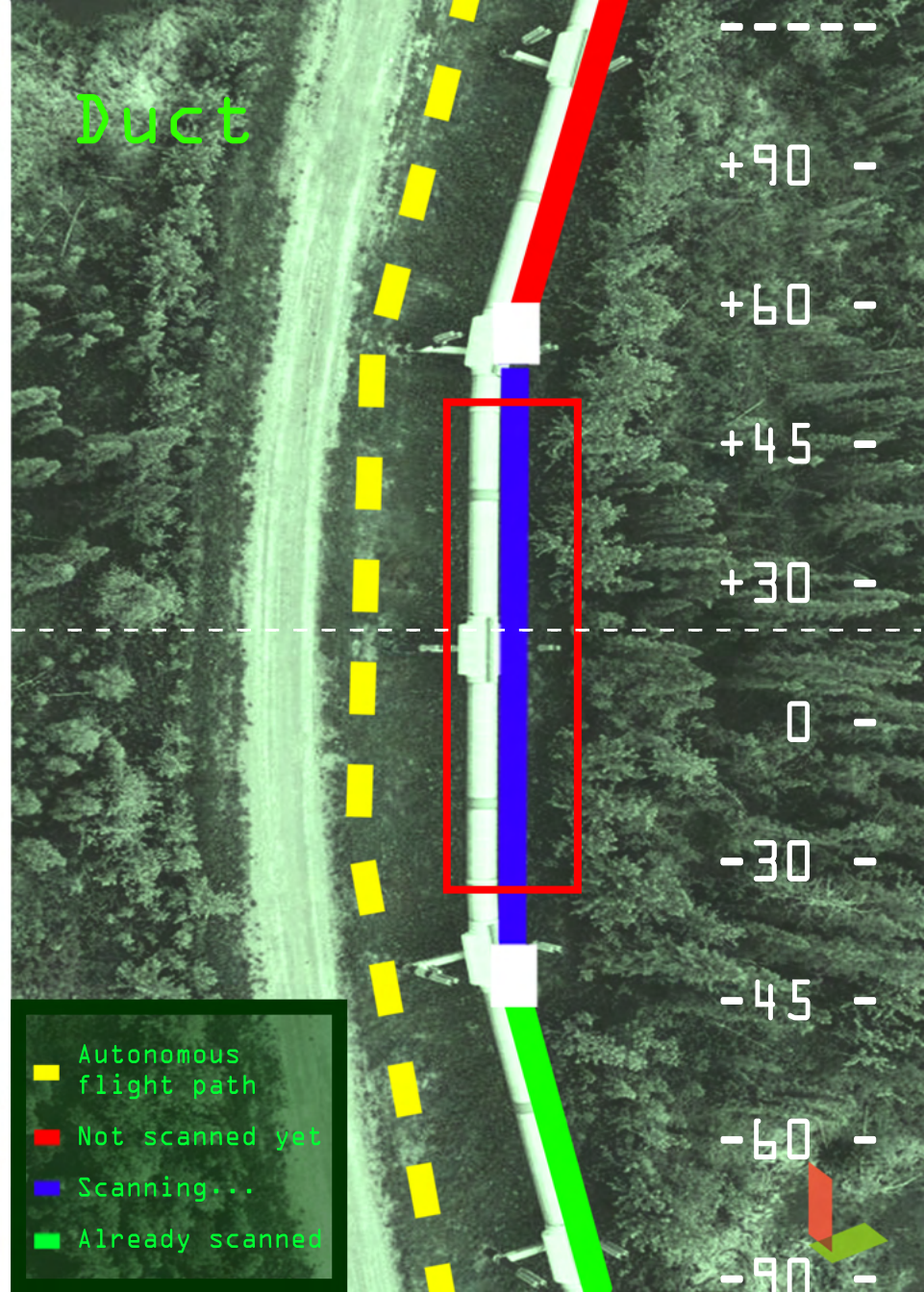
Our patent pending solution provide the possibility to auto identify target, start following it at constant height, real time images processing and apply auto detection for defets or problems.

Our system can be **easily customized** and our vision algorithm can learn and improve finding defects or any other points of interest.

We can use both Thermal or RGB imaging for guide and any sensors for defects and reporting.

Our focus points are those infrastructure with repetitive linear dimensions, like PV Fields, wind turbine, gas duct, power line, and more.

Our system optimizes flight paths and reduces survey time.



MULTISENSOR

MULTISENSOR SURVEY: Thermal imaging, multispectral and integration.

We know that sometimes do your best it's not enough. That's why we try to offer more: more opportunity, more infos, more quality.

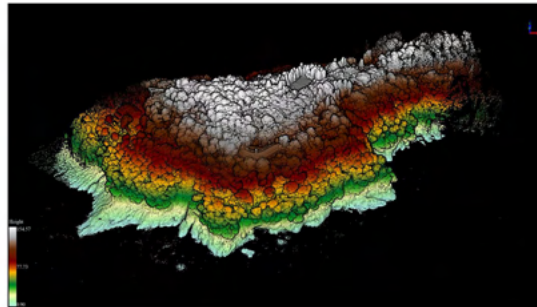
Our team has acquired in years a big know-how in multisensory images treatment, to get the right result for each environment.

We daily perform RGB, LIDAR, Thermal and Multispectral survey in several operation conditions, integrating dataset with GIS and raster calculator.

This helps our Customers to better understand all the potential given by a multisensor relief.

We fully understand how each sensor works, that's why we maintain them always calibrated with certification and we make continuos check during our reliefs.

Moreover, we can also integrate other types of sensors, like gas sensors, pressure an others with a custom made solution, developed to maximize the opportunity offered by a drone survey.



VALUE ADDED RESELLER

LiAir series

LiAir series is designed to be used on aerial platforms, with a range suitable for any type of relief.



LiAir V 70

With high flexibility and powered by Livox AVIA, LiAir V70 can provide high-accuracy point cloud for the users in various industries, e.g. surveying, forestry, powerline inspection.



LiAir 50

LiAir 50, powered by Velodyne's VLP-16 sensor, is Green-Valley's most cost-effective UAV LiDAR system. The LiAir 50 is an ideal entry-level system or environments with minimal vegetation coverage.



LiAir 220

The LiAir 220 is our sUAV-mounted system. The LiAir 220 integrates a 40-channel Pandar40 laser sensor with a 220 meter range making it a go-to solution for power line mapping.



LiAir 250

LiAir 250 can generate up to 5 data points per laser pulse from its Riegl miniVUX-1 sensor. That, plus its 250 meter range, make it a well-qualified choice for mapping the terrain beneath forest canopies.



VALUE ADDED RESELLER

LiBackpack series

For modeling internal structures and ground reliefs. LiBackpack series are the best in the field.



LiBackpack 50

LiBackpack 50 enables users to accurately acquire rich 3D point cloud data quickly and efficiently. Integrating LiDAR with SLAM (simultaneous localization & mapping) technology allows for seamless real time SLAM registration and scanning capabilities in both indoor/outdoor environments.



LiBackpack C 50

LiBackpack C50 integrates LiDAR and 360° imaging technologies to produce true color point clouds. It is a flexible mobile laser scanning solution for indoor and outdoor applications. Users can also opt for a LiDAR-only solution.



LiBackpack DG 50

LiBackpack DG50 is an upgraded version of GVI's dual-sensor laser scanning system, LiBackpack D50. With a GNSS module onboard, the LiBackpack DG50 provides 3D point cloud model with highly accurate positioning information. The new LiBackpack DG50 gives you absolute positioning function along with all the advantages of LiBackpack D50.



LiBackpack DGC 50

LiBackpack DGC50 LiDAR scanning system is the multi-sensor integrated version of the LiBackpack series, including a horizontal and vertical LiDAR sensor, a high-resolution panoramic camera and a precise GNSS module.

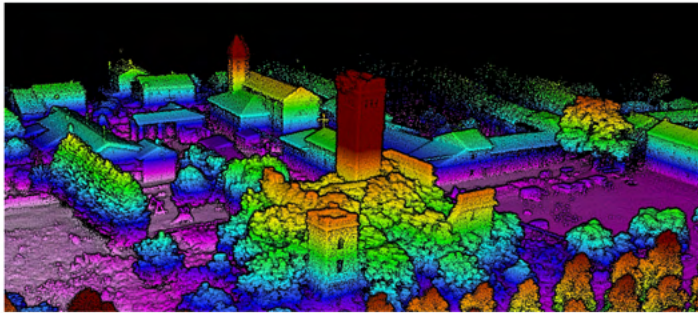


VALUE ADDED RESELLER

LiDAR software

LIDAR ITALIA provides a software package that allows you to manage the entire workflow of a given 3D: the acquisition, recording, data processing and product generation.

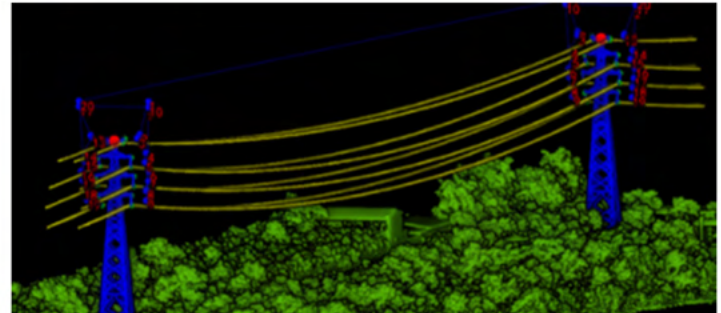
➤ Lidar 360



The LiDAR360 Framework lays the foundation for the entire software suite. **Functions** include data management, automatic strip alignment, and point cloud classification. It also allows users to upgrade to application-specific modules such as terrain, ALS/ TLS Forestry, and Geological Analysis. The latest version LIDAR360 5.0 perfectly supports all the attributes of LAS 1.4,

- Input data from point cloud, models, rasters, vectors and more
- Classification tools
- Automatic strip alignment
- Display by elevation, intensity, category, RGB, combination, ecc
- Display modes: Mixed display, treeID, EDL, Glass
- Display and measure flight path files
- Clip flight path

➤ LiPowerline



LiPowerline offers a complete and intuitive solution for power line inspection from LiDAR point clouds. It includes a powerful toolset for automatically classifying power lines, towers and vegetations, manually augmenting the classification results, and effectively detecting a range of user-defined danger points (e.g., vegetation overgrowth and tree fall). It's built-in reporting function allows users to quickly generate detailed project reports and export inspection results to KML file format.

3 main features of LiPowerline

- Individual Tree Segmentation
- Analyze Real-World Conditions
- Simulate Environmental Conditions



