

"Techno Presentation" ENTERPRISE DRONES AND GNSS RTK SYSTEMS FOR A NEW GENERATION OF WORK



Based in the UAE, we are a comprehensive Drone Solutions Provider and a top Drone Technology Company in the region, assisting enterprises and firms in integrating Drone Solutions into their operations and projects across the Middle East and Africa.

Our offerings encompass: • Enterprise Drones • Cameras, LiDAR, Sensors • Handheld Scanners • GNSS RTK Systems

- Software
- Training
- Technical Support

Our Company

Aerial Drone Solutions At A Glance

Enterprise Drones

Drones for surveying, mapping, inspections, filming, and various commercial applications.

Drone Payload Cameras

Payload cameras include sensors like LiDAR, RGB mapping camera, Starlight night vision , IMU solution for 3D data collection.

Specialized Payload Sensors

Payloads Cameras and Sensors for Oblique 3D Photogrammetry, Multi Gas Detection, Airdrop Release, Searchlights, Speakers,



Integrated Systems

Sensors like GPR, Magnetometers, and Echosounders for airborne geophysics, hydrography, and environmental monitoring.

Software

Different PC software for capturing, processing, analyzing, modeling, operations management, and team management.

Training & Certifications

Training and Certification on Plan, Collect and Process using Enterprise Drones for Hobbyist, Commercial, Advanced Industry level trainings.

GNSS.AE Ground / Handheld Solutions At A Glance

Handheld 3D SLAM Scanner

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LixelStudio

Flagship handheld 3D scanner providing Next-Gen 3D Content Technology Based on Multi-SLAM & 3DGS

urban surveying





Lixel L2

High End GNSS RTK Systems

High end GNSS RTK Systems with photogrammetry capability, efficient, user friendly, versatile, safer for

Applications/ Industries At A Glance

Geospatial & Construction Inspections & Integrity

- Roads & Infrastructure
- Buildings & Urban Area
- Transport Networks

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- Stock Pile & Volumetric
- Mines and Quarries
- Pipeline & Linear Assets
- Land and Natural Resources
- Civil Engineering
- Archaeology & Historical Sites

- Critical Infrastructure Assets
- Oil & Gas Assets
- Powerline & Transmission Lines
- Cell Networks
- Solar PV Plants
- Roads & Infrastructure
- Buildings & Urban Area
- Transport Networks
- Utilities & Energy Assets
- Maritime, Ports & Terminals







Specialized Applications

- Gas Detection
- Air Quality Monitoring
- Bathymetric Survey
- Corona / UV Inspections
- Metal Detection
- Magnetometer Surveys
- GPR/ Utility Surveys
- Surveillance/ Monitoring

Aerial Drone Solutions





Aerial Drone Solutions DJI Enterprise Drones

DJI Matrice M350 RTK Drone

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Engineered for precision and reliability. Equipped with Real-Time Kinematics (RTK) technology, it ensures centimeter-level accuracy in every mission. With its robust design and advanced flight capabilities, the M350 RTK empowers professionals in industries like surveying, mapping, and inspection to achieve unparalleled results.



DJI Matrice M30T RTK Drone

Cutting-edge solution for high-precision aerial tasks. Boasting Real-Time Kinematics (RTK) technology, it delivers unparalleled accuracy, vital for industries such as surveillance, monitoring and infrastructure inspection. With its versatile payload options and robust design, the M30T RTK is poised to elevate your professional drone operations to new heights.



DJI Mavic 3 Multispectral Drone

Revolutionizing precision agriculture and environmental monitoring. This innovative drone combines the compact design and advanced flight performance of the Mavic 3 series with a multispectral imaging system, enabling detailed crop analysis and environmental assessment like never before. With its integrated multispectral camera array, the Mavic 3 Multispectral provides valuable insights into crop health, soil composition, and vegetation mapping.



DJI Mavic 3 Enterprise/ Thermal

Combining the power and portability of the Mavic 3 platform with advanced thermal imaging capabilities, it offers unrivaled versatility for professionals in surveying, mapping, research and rescue, firefighting, and infrastructure inspection. With its dual payload options, users can seamlessly switch between visual and thermal cameras, ensuring comprehensive data collection in any environment.



Aerial Drone Solutions DJI Payload Cameras

DJI Zenmuse P1 Aerial Survey Camera



DJI Zenmuse H20N /H20T Camera



DJI Zenmuse L2 / L1 LiDAR Camera

This cutting-edge payload seamlessly integrates frame LiDAR technology with a self-developed high-accuracy IMU system and a 4/3 CMOS RGB mapping camera, delivering precise, efficient, and reliable geospatial data acquisition for DJI flight platforms. Whether used for terrain modeling, infrastructure inspection, or environmental monitoring, the Zenmuse L2 provides unmatched accuracy and detail from above. Experience the future of aerial data collection with the DJI Zenmuse L2 LiDAR Camera. setting new standards in precision and performance.



Aerial Drone Solutions Specialized Payloads

Next level of customization and innovation for DJI Enterprise solutions: Third-party payload cameras and sensors, fully compatible with DJI SDK.

With the ability to seamlessly integrate a wide array of cameras, sensors, and software from trusted third-party providers, DJI Enterprise drones become even more versatile and powerful tools for a variety of industries. From specialized sensors for agriculture and environmental monitoring to advanced imaging systems for infrastructure inspection and public safety applications, there's a solution to fit every need.

Unlock new possibilities and tailor your drone setup to your specific requirements, all while leveraging the reliability and performance of DJI platforms. Experience the future of aerial technology with third-party payloads and software compatible with DJI Enterprise solutions, revolutionizing the way you approach your most critical missions.

- Oblique Survey Cameras
- Multi Gas Detection Sensors
- Hyperspectral Cameras
- Multispectral Camera
- Loudspeakers
- Spotlights
- Laser night vision lights
- Drop Release hooks Winch
- Drone Payload Air Drop Release
- Drone parachutes
- Water sampling collector
- and much more....











Aerial Drone Solutions Integrated Systems

Integrated sensors play a pivotal role across various industries, providing crucial insights and solutions to complex challenges.

Integrated sensors offer invaluable capabilities in each of these industries, empowering professionals to conduct precise assessments, enhance safety, and optimize operations with unprecedented efficiency.

Subsurface Search

- Underground utilities search & localization: Utilizing Ground Penetrating Radar (GPR) and magnetometer.
- Cavities, voids, tunnels: Leveraging GPR technology.
- Archaeology: Employing GPR and magnetometer.
- UXŎ search: Utilizing magnetometer.

Mining

- Exploration geophysics: Leveraging magnetometers and GPR.
- Tramp metal detection: Utilizing magnetometers.
- TSF monitoring: Combining echo sounders and GPR for Tailings Storage Facility monitoring.

Hydrography

- Conducting bathymetry of waterways, lagoons, lakes, ponds, and harbors.
- Dredging monitoring.
- Assisting in construction planning.



GPR

Environmental Monitoring

- Methane leaks detection: Utilizing methane detectors.
- Abandoned wells detection: Using magnetometers.
- Sediments monitoring: Utilizing echo sounders.
- Snow/ice studies: Employing GPR.
- Water quality monitoring: Utilizing water samplers.
- Landslides prevention: Utilizing GPR.

Aerial Drone Solutions Software

DJI Terra

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The advanced mapping and modeling software designed to unlock the full potential of DJI drones. With DJI Terra, users can transform aerial data into actionable insights with ease. Its powerful suite of capabilities includes:

- Automated Flight Planning: Plan and execute complex flight missions with precision, ensuring optimal coverage and efficiency.
- Real-time Mapping: Generate high-resolution 2D maps and 3D models in real-time, allowing for instant analysis and decision-making.
- Orthomosaic Generation: Seamlessly stitch together aerial images to create accurate and detailed orthomosaics, ideal for surveying and mapping applications.
- Point Cloud Creation: Generate point clouds from aerial imagery, enabling precise measurement and volumetric analysis for construction, mining, and environmental monitoring.
- Volume Calculation: Accurately calculate volumes of stockpiles, terrain, and structures, streamlining inventory management and earthworks planning.
- Customizable Reporting: Generate customizable reports and annotations to communicate findings effectively and collaborate with stakeholders.

DJI Terra empowers professionals across industries such as construction, agriculture, mining, and infrastructure inspection to streamline workflows, improve efficiency, and make informed decisions based on reliable aerial data.

DJI Modify

DJI Modify, the groundbreaking 3D model editing software from DJI. With its streamlined interface and intuitive tools, DJI Modify simplifies model editing, ensuring efficient workflows for professionals in various industries.

- When paired with a DJI Enterprise drone and DJI Terra, it becomes part of a comprehensive solution for aerial surveying, modeling, and editing, tailored to meet the operational needs of surveying and mapping, firefighting, emergency response, and transportation.
- DJI Modify offers a seamless workflow with features such as streamlined interaction, smart model recognition, auto repair, batch repair, built-in texture editing tools, and cloud sharing capabilities. With DJI Terra integration, launching DJI Modify for model editing is just one click away, allowing for an end-to-end solution from modeling to editing.
- By enabling the DJI Modify switch in DJI Terra, files for model editing are automatically generated, including preidentified objects and pre-processing of the model, facilitating efficient model editing processes.
- Experience the efficiency and convenience of DJI Modify in your aerial surveying and modeling projects, and unlock the full potential of your DJI Enterprise drone and DJI Terra for unparalleled results.

Aerial Drone Solutions Software

Reality Capture RealityCapture

Revolutionizing the way we capture and interact with the world around us. Built on cutting-edge technology and powered by EPIC's expertise in digital entertainment, this software offers unparalleled capabilities in capturing, processing, and visualizing real-world environments with stunning realism.

- With EPIC's Reality Capture Software, users can seamlessly transform physical spaces into immersive digital experiences. Whether it's for architectural visualization, virtual production, urban planning, or gaming, the software empowers creators to bring their visions to life with unprecedented fidelity and detail.
- Featuring advanced tools for photogrammetry, LiDAR processing, and mesh reconstruction, EPIC's Reality Capture Software provides professionals with the tools they need to unlock new creative possibilities and push the boundaries of what's possible in virtual content creation.

Pix4D

Pix4D's suite of cutting-edge solutions: Pix4D Matic, Pix4D One of the industry-leading solution for Mapper, and Pix4D Survey. Designed to meet the diverse photogrammetry and 3D modeling. Trusted by needs of professionals in industries such as surveying, professionals in a wide range of fields including archaeology, architecture, geology, and agriculture, construction, agriculture, and public safety, these software applications offer unparalleled capabilities in aerial data Metashape empowers users to transform aerial imagery into detailed 3D models, maps, and point clouds with processing, analysis, and visualization. exceptional accuracy and precision.

- Pix4D Mapper is the industry-leading photogrammetry software, enabling users to transform drone-captured imagery into accurate 2D maps, 3D models, and point clouds with ease. With advanced processing algorithms and intuitive workflows, Mapper empowers professionals to extract valuable insights and make informed decisions.
- Pix4D Matic takes aerial data processing to the next level with its powerful automation features and scalability. Designed for large-scale projects and enterprise-level workflows, Matic streamlines data processing and analysis, allowing users to efficiently manage and process massive datasets for rapid decision-making.
- Pix4D Survey is a comprehensive solution tailored specifically for surveying and construction professionals. With specialized tools for ground control point management, volume calculations, and CAD export, Survey simplifies the surveying workflow and enhances productivity on the job site.

Metashape

- With Metashape, users can effortlessly process drone-captured photos into high-quality orthomosaics, digital surface models, and textured 3D models. Its advanced algorithms ensure optimal results, even from challenging datasets, while its intuitive interface streamlines the entire photogrammetric workflow from data processing to model export.
- Whether you're conducting site surveys, creating digital twins, or performing volumetric analysis, Metashape provides the tools you need to visualize, analyze, and share geospatial data effectively. Experience the power of Metashape and unlock new possibilities in aerial mapping, surveying, and beyond with Agisoft's premier photogrammetry software.

Aerial Drone Solutions Trainings & Certifications

Training and Certification on Plan, Collect and Process using Enterprise Drones.

Explore our comprehensive commercial drone training and certification services tailored to professionals across various industries. Our programs ensure compliance with regulations, mitigate risks, and unlock the full potential of drone technology across industries. Upon completion, attendees receive a Training Completion Certificate, validating their expertise and competence in drone operations.

Here's an overview of our training and certification offerings:

Hobbyist Drone Training

- Ideal for newcomers, this program covers drone operation basics, safety protocols, and regulatory compliance. Topics include flight controls, pre-flight checks, airspace regulations, and emergency procedures.
- Duration: 3 to 5 hours.

Commercial RPAS Training

- Essential for commercial drone operators in the UAE, this program prepares pilots for the GCAA and DCAA commercial drone operations.
- Successful completion leads to a Commercial RPAS Training Certificate, enabling operators to apply for a Commercial Flying Permit through their organizations.
- Duration: 2-3days (4hours each day).

Advanced On-the-Job Drone Training

- Designed for seasoned pilots, this program delves into advanced flight maneuvers, aerial surveying, mapping, filming techniques, and industry-specific applications.
- Training may cover advanced technologies like thermal imaging and LiDAR.
- Data Capture, Processing, Reconstruction and Modelling Trainings
- Duration: customized based on training needs.

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Industry-Specific Training

- Tailored to various sectors including construction, agriculture, and public safety, these programs provide specialized instruction on using drones for specific applications such as aerial mapping, crop monitoring, and search and rescue operations.
- Duration: customized based on training needs.

MA GNSS.AE

Ground / Handheld Survey Solutions

Ground Survey Solutions GNSS RTK Systems

Inno 8 GNSS (Photogrammetry)

- Dual-cam Flagship Masterpiece
- Visual positioning and AR stake-out on board
- Ready for online/off-line/post process and 3D modeling
- 1598/1698/1760 channels available, with upward antenna design
- Ultra-large HD touch screen 1.39-inch, color LCD
 3W internal UHF, Farlink 2.0 radio datalink technology
- 10000 mAh internal battery and 64 GB internal memory

Inno 7 GNSS

Multi-functional Large Screen Receiver

- 336/1598 channels available, with upward antenna design
- RTX XTRa technology to deliver cm-accurate positioning by SSR
- Ultra-large HD touch screen 1.54-inch, color LCD
 3W internal UHF, Farlink 2.0 radio datalink technology
- 2 nos. 3400 mAh hot-swappable battery and 64 GB internal memory

Ground Survey Solutions GNSS RTK Systems

Galaxy G9 GNSS

- A Smart Wireless Model
- 1598/1760 channels available
- 2W internal UHF, Farlink 2.0 radio datalink technology
- One button for all operations, power indication without switching on even
- Fixed solutions kept at centimeter level for minutes while corrections are missing

- 2 nos. 3400 mAh hot-swappable battery, working time up to 15 hours max.

Galaxy G5 GNSS

Designed for Powerful Base

- 1760 channels for full constellation tracking
- 3W internal UHF, Farlink 2.0 radio datalink technology
- Upward antenna but indented design, IP 68 rating
 Ultra-large HD touch screen 1.3-inch, color LCD
- 10000 mAh internal battery, internal memory extendable up to 64 GB

Ground Survey Solutions Data Collectors

H6 Rugged Data Collector

Rugged Data Collector – Android 11 OS, 64GB ROM, fast than ever

- 5-inch touch screen with full keypad

- Seamlessly integrated with Google framework

- A durable and reliable fieldwork tool

N80 Rugged Tablet

Industrial-level GNSS Tablet - Tailor-made to Geodesy, GIS and other related industries - GNSS board, sensitive antenna, 5G telecom module on board - Android 12 OS, 128 GB ROM, multi-touch screen, QC 3.0, GMS - IP67 rating, a portable high-precision tablet PC

Ground Survey Solutions Field & Office Software

SurvStar Field Software

RTK Fieldwork Software

GNSS.AE

- CAD drawing on site, one-stop fieldwork solution, CAD layout directly with

map drawings, no coordinate transformation needed
Meas & Map, to perform mapping while measuring points, easy one-shot
Photogrammetry on board, to measure inaccessible points out of reach via captured images or video streams. Image data could be further used for 3D modeling.

- AR stake-out available, by point/line/CAD. Target points could be easily reached with the visualized guide.

- GIS data acquisition, to work with high-precision tablet PC (eg. N80T)

Geomatics Office Software Tailor-made to survey industry, a power station for geomatics data
 Ready to edit, process, and analyze data from GNSS receivers, total stations, and levels - Supports CAD, cloud services, online maps, road design, GIS/image process, project analysis, earthwork calculation, data quality check, and debugging, etc.

SGO Geomatics Office

Handheld Scanning Solution **3D SLAM Scanner**

XGrids Lixel L2 Handheld 3D SLAM Scanner

Xgrids Lixel L2 Handheld 3D SLAM Scanner is integrated with modules such as LiDAR, 3 color cameras, high-precision inertial navigation, and high-performance computer, the Lixel L2 seamlessly combines data capture with real-time modeling, producing true-color point cloud models with cm-level accuracy in real-time.

- Hardware Longer range, denser, lighter
- Accuracy More precise, more stable, more consistent
- Point cloud Thinner, cleaner, more uniform
- Integration No external camera, excellent color point cloud

Outstanding Point Clouds, Visible to Naked Eyes:

Triple Perception, Fearless in Highly-repetitive Environments:

- Thin: Point cloud thickness within MultiSLAM algorithm upgraded. 1cm.
- Clean: Significant reduction in noise points.
- Uniform: Even and delicate point clouds, enabling more accurate measurements.
- Newly added RTK participation in real-time calculation, triple positioning perception
- (laser/vision/satellite), ensuring excellent performance in degraded environments.

Lixel Companion App:

- Lixel Companion App, offering easy control with one screen and one-click operation.
- Access full process operations such as RTK setting and breakpoint rescan.
- Real-time viewing of camera images, elevation information, and true-color point clouds to avoid missing or incorrect data collection.
- Complete display of collection status such as battery power, network, memory, and range.

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Thank You!

For all enquiries, please reach out to us at info@gnss.ae/ geospatial@gnss.ae or by clicking the below links.

