



شركة ابتكارات حادة
Sharp Innovations
Innovating The Tech Experience

DRONE SOLUTION

OVERVIEW

The Drone Solutions offered by Sharp Innvotech combine unmanned aerial systems (UAS) with Geographic Information System (GIS) technology to provide high-resolution, high-accuracy aerial data. The platform is designed to replace traditional, manual surveying methods with faster, safer, and more cost-effective digital alternatives for monitoring land, infrastructure, and industrial assets.



CHALLENGES

- 1. Manual Surveying Limitations:** Traditional manual data collection is often slow, labor-intensive, and costly, making it difficult to keep up with time-sensitive projects.
- 2. Safety Risks:** Sending personnel into hazardous or hard-to-reach environments—such as bridges, towers, or industrial sites—poses significant operational and personal safety risks.
- 3. Lack of Precision:** Relying on satellite imagery or ground-level surveys can often result in insufficient resolution or accuracy for detailed, real-time decision-making in dynamic environments.
- 4. Operational Bottlenecks:** Managing large areas and complex terrains without advanced aerial intelligence can lead to delays and suboptimal planning, hindering project progress.



info@sharpinnvotech.com



www.sharpinnvotech.com

ANALYSIS

- 1.** Strategic Digital Transformation: Replaces legacy, manual survey methods with automated aerial intelligence, establishing a "single source of truth" for geospatial data.
- 2.** Enhanced Operational Safety: Eliminates the need for manual site access by using drones for inspections, significantly reducing risk in hazardous or complex environments.
- 3.** Rapid, High-Precision Insight: Converts raw flight imagery into accurate, GIS-ready 3D models and maps, enabling faster, data-backed decision-making for large-scale projects.
- 4.** Integrated Workflow Efficiency: Seamlessly blends aerial data with existing GIS platforms, lowering operational costs while increasing the quality and speed of project monitoring.

SOLUTIONS



- 1.** Automated Aerial Mapping: Replaces manual field surveys with professional drones to capture high-resolution imagery and spatial data in a fraction of the time.
- 2.** GIS-Ready Data Processing: Converts raw aerial captures into actionable, structured outputs—such as 3D terrain models and orthomosaic maps—that integrate seamlessly with existing Geographic Information System (GIS) platforms.
- 3.** Safe Remote Inspection: Utilizes aerial technology to perform detailed checks of hazardous or hard-to-access structures like bridges and towers, completely removing the need for manual site entry.
- 4.** Data-Driven Intelligence: Provides clear reports, visual dashboards, and spatial layers that enable project teams to monitor progress and make informed operational decisions based on accurate, real-time ground intelligence.

KEY FEATURES



Efficiency & Speed

Dramatically reduces the time required for surveys, capturing large-area data in hours rather than days or weeks.



Improved Safety

Eliminates the need for personnel to manually access hazardous or difficult-to-reach locations like bridges, towers, or industrial sites.



High Precision

Delivers high-resolution imagery and accurate spatial data that outperform standard satellite or manual ground-level surveying.



Cost Effectiveness

Lowens operational overhead by reducing manual field labor and the need for specialized heavy equipment.



Actionable Insights

Provides clear reports, visual dashboards, and spatial intelligence that enable faster and more informed operational decision-making.

END RESULT

- **Accelerated Project Timelines:** Dramatically reduces the time needed for surveying and mapping large, complex areas from weeks to hours.
- **Higher Data Precision:** Delivers high-resolution imagery and accurate 3D spatial data that significantly outperform traditional manual or satellite surveying methods.
- **Enhanced Site Safety:** Completely eliminates the need for manual personnel access to hazardous or difficult-to-reach locations like industrial sites, bridges, and towers.
- **Lower Operational Costs:** Minimizes expenditure on manual field labor and heavy equipment while maintaining high-quality, actionable results.
- **Data-Driven Decision Making:** Converts raw aerial data into structured reports, 3D models, and GIS-ready maps, providing clear insights for better planning and monitoring.



TECHNOLOGY



Angular



Nodejs



Postgres



Express



info@sharpinnvotech.com



www.sharpinnvotech.com