



ANTs Aerial Systems Ltd.
ANTs Drone Hub



CONTENTS

ABOUT US

03

OUR STORY

04

MISSION & VISION

05

INDUSTRY

06

SERVICES

10

PRODUCTS

19

CLIENTS & GLOBAL PARTNERSHIPS

24

RECOGNITION AND GLOBAL IMPACT

26

TEAM

28

CULTURE & WORK ENVIRONMENT

29





ABOUT US

ANTS is a Bangladesh-based full-stack drone technology and aerial intelligence company delivering end-to-end solutions for enterprise, industrial, and government clients. We combine advanced UAV platforms with data analytics to turn aerial data into actionable insights. Our work spans mapping and surveying, infrastructure inspection, agricultural spraying, and thermal diagnostics. Beyond data capture, ANTS provides in-house processing, analysis, and reporting, ensuring clients receive decision-ready outputs not just imagery. We also support organizations with drone integration, deployment strategy, and technical consulting. With a focus on reliability, scalability, and local capacity building, ANTS is helping industries adopt safer, faster, and smarter aerial solutions across Bangladesh and beyond.





OUR STORY

ANTS began in 2018 when four engineering students started building drones and participating in local and international engineering design challenges with a shared vision of developing sustainable, affordable, in-house technologies in Bangladesh. What began as a robotics-focused team grew into a 14-member engineering group, later becoming a registered company with ambitions in commercial UAV deployment and applied drone systems.

The company gained national recognition by placing 6th among 3,147 startups in the IdeaTHON Contest 2020, organized jointly by Bangladeshi and South Korean partners. ANTS later secured the Bangabandhu Innovation Grant (BIG) 2021 worth BDT 1 million and moved from an MVP-stage startup into a multi-division company serving B2B, B2G, and selected B2C markets.





MISSION & VISION

Vision:

ANTS aims to build smarter, data-driven drone technology as a core tool across agriculture, energy, infrastructure, and public services. Through aerial intelligence and geospatial analytics, it seeks to replace manual processes with automated, real-time systems that improve decision-making, efficiency, and sustainable national development.



Mission:



ANTS integrates UAV technology with advanced analytics to turn complex field data into clear, actionable insights. The company focuses on delivering real-time intelligence that helps organizations make faster and better decisions while improving safety, efficiency, and sustainability across key sectors like agriculture, energy, infrastructure, telecom, and public services.





INDUSTRY

Agriculture



Defense





INDUSTRY

Real Estate



Solar





INDUSTRY

Structural Integrity



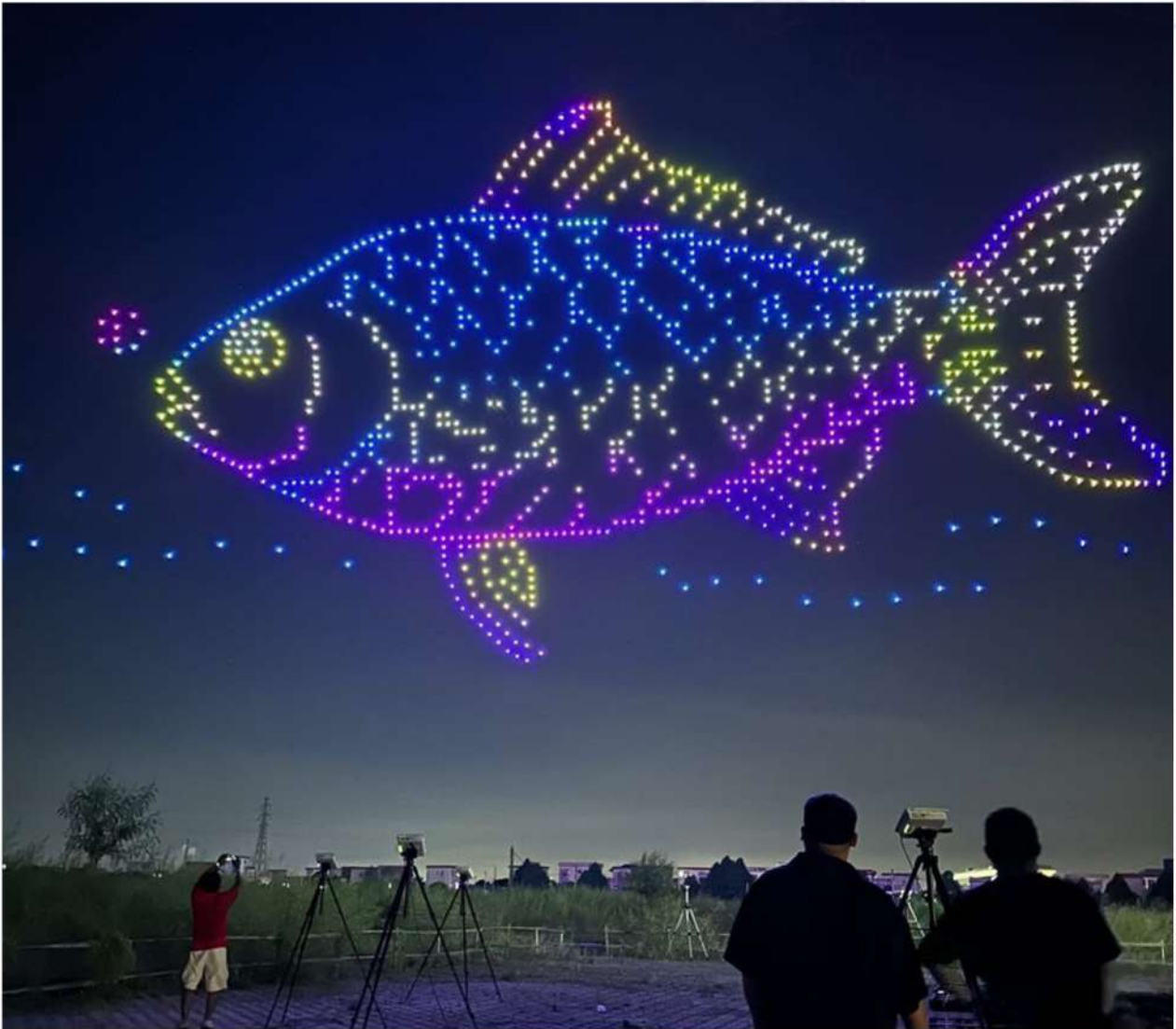
Telecom





INDUSTRY

Aerial Displays and Lightshow





SERVICES

Orthomosaic Mapping & 2D/3D Modelling

ANTS provides advanced aerial mapping and 3D modelling services that transform real-world environments into precise digital geospatial representations. These include Orthomosaic Maps, Digital Surface Models (DSM), Digital Elevation Models (DEM), Digital Terrain Models (DTM), point clouds, contour maps, and BIM-compatible 3D digital twins for land surveying, infrastructure planning, construction monitoring, and large-scale asset management.



High-resolution, geo-tagged drone imagery is processed through advanced photogrammetry and AI/ML-powered analytics software, stitching thousands of overlapping images to generate accurate maps and intelligent 3D models that reflect real-world dimensions. Machine Learning algorithms assist in automated feature extraction, terrain classification, anomaly detection, object recognition, and predictive spatial analysis, enabling faster interpretation of large-scale geospatial datasets. This empowers precise, data-driven decision-making across energy, agriculture, infrastructure, and telecommunications sectors, replacing manual methods with faster, safer, and more scalable digital solutions.

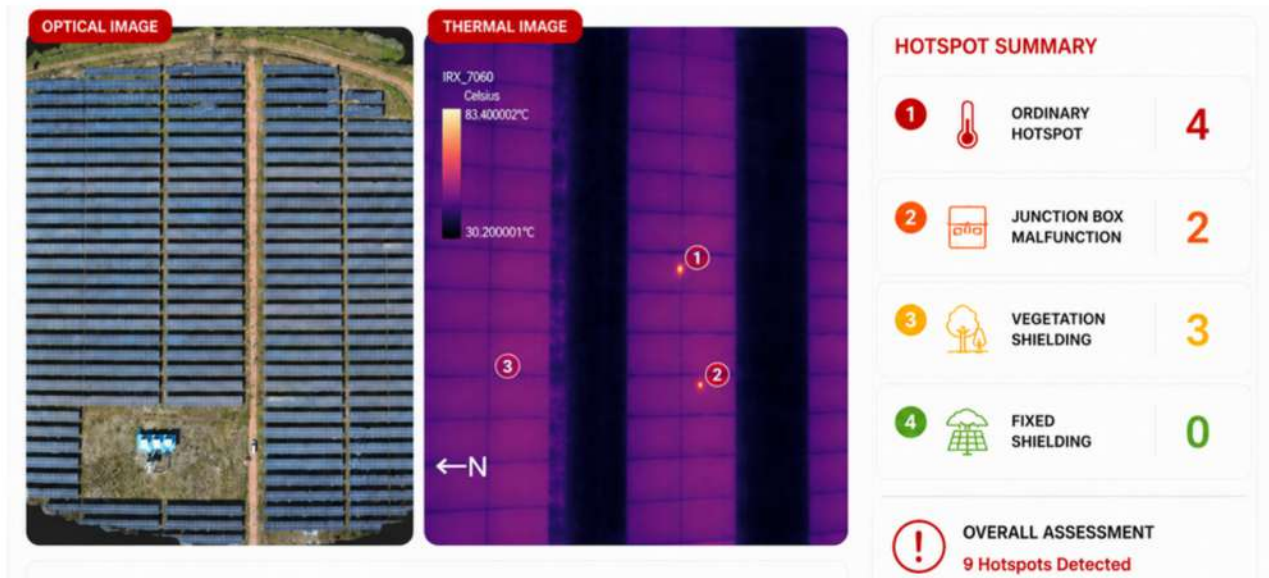




SERVICES

Thermal Imaging & Thermography

We provide advanced drone-based thermography that uses infrared imaging to detect temperature variations and identify hidden faults, inefficiencies, and safety risks in critical assets. High-resolution thermal data enables early detection of overheating components, electrical faults, and structural defects before system failure, transforming inspections into proactive asset management.



The structured workflow includes mission planning, calibrated thermal/optical data capture, photogrammetric processing into thermal maps and Orthomosaic, defect categorization, and cross-verified AI-powered reporting. This supports solar energy, power utilities, oil & gas, manufacturing, infrastructure, agriculture, and government sectors with faster inspections and predictive maintenance.



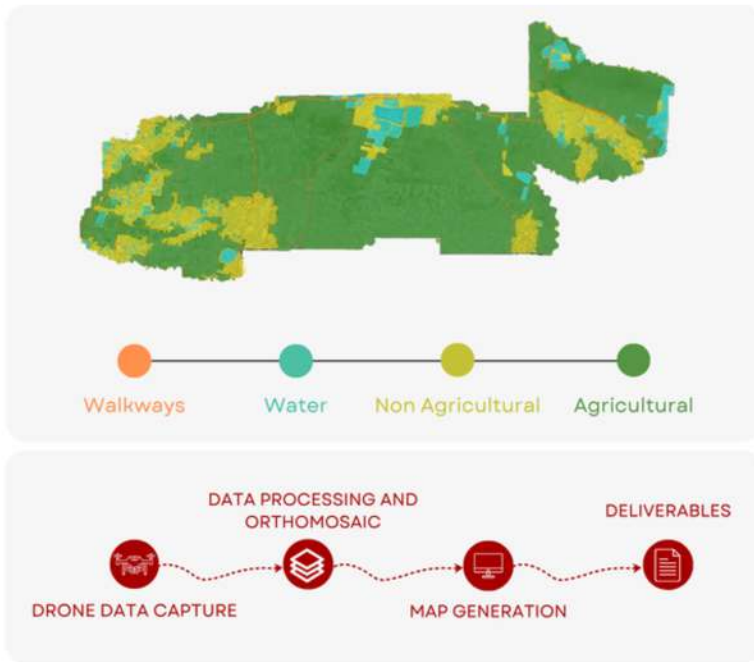


SERVICES

GIS-Based Geospatial Analytics

This service builds highly accurate digital maps by integrating drone-captured spatial data with GIS platforms, creating detailed geographic layers for land parcels, infrastructure networks, and environmental features with high positional accuracy.

Geo-tagged aerial data is processed through GIS software for alignment, analysis, and structured spatial outputs showing boundaries, asset locations, coverage zones, and temporal changes across large regions. Governments, utilities, and agricultural organizations use it for infrastructure planning, asset management, resource optimization, coverage gap identification, and policy decisions.





SERVICES

AI-Powered Reporting & Dashboards

This service converts aerial and geospatial data into decision-ready insights using machine learning and computer vision, turning raw drone imagery into detected objects, performance trends, anomaly patterns, and predictive indicators via interactive dashboards.

Drone data is processed through AI models for spatial/temporal pattern analysis, integrated into cloud platforms with real-time visualization, automated reporting, and API connectivity. Agriculture, telecom, defense, and infrastructure sectors benefit from faster forecasting, operational monitoring, situational awareness, and efficient large-scale management.

ANTS — Vehicle Detection Mirpur Road overpass · Alt 28m Video upload **Live feed** ● Live · 1080p · 30fps

LIVE FRAME # 2847 · Dji Matrice 4E

23 vehicles detected

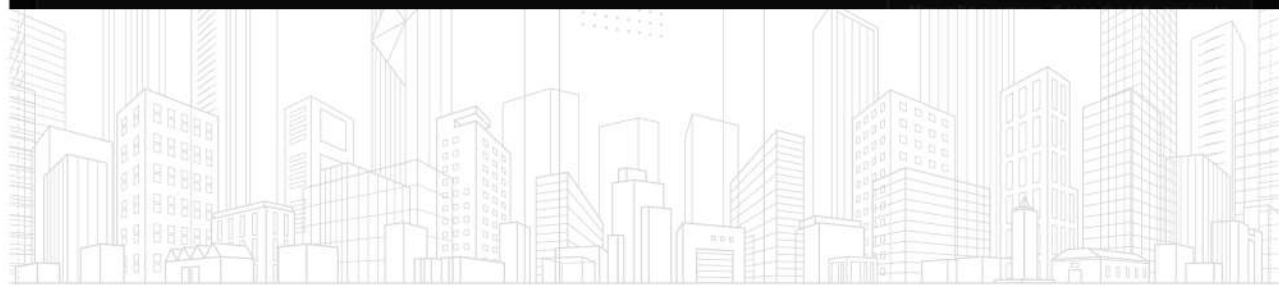
VEHICLE COUNTS	
Total	23
Cars	11
Motorcycles	4
Buses	3
Trucks	2
CNG	3

CONFIDENCE SCORES	
car	96%
bus	93%
bus	91%
motorcycle	88%
CNG	82%

DETECTION LOG

- bus - 91% - lane 3
- car - 88% - lane 2
- bus - 93% - lane 4
- moto - motorcycle - 85% - lane 3
- car - 96% - lane 1
- CNG - CNG - 82% - shoulder

⏪ LIVE Detecting ⏩ Auto - 2s





SERVICES

Crop Health Monitoring & Yield Forecasting

This service assesses agricultural conditions using drone-based remote sensing to evaluate crop health and predict yield outcomes, replacing field surveys with data-driven insights on vegetation stress, growth patterns, and productivity estimates.

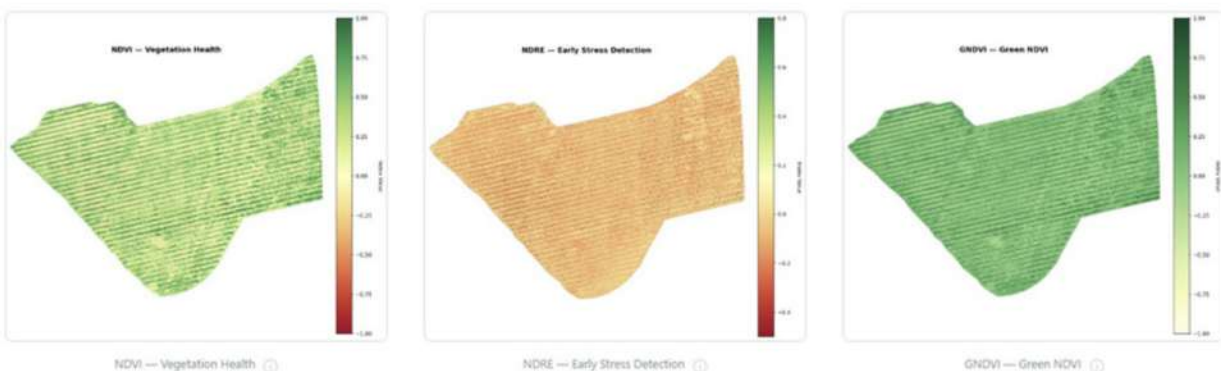
Multispectral/thermal imagery captured across growth stages is processed into vegetation indices, stress maps, and calibrated yield predictions refined by ground-truth validation. Farmers, agencies, and planners use it for real-time irrigation/fertilization decisions, food security planning, harvest estimation, and regional resource allocation.



Vigor Class Statistics

Class	NDVI Range	Area (pixels)	Percentage
BARE SOIL	< 0.15	48406426	33.8%
STRESSED	0.15 - 0.30	20524626	14.3%
MODERATE	0.30 - 0.50	29134616	20.4%
HEALTHY	0.50 - 0.70	27259500	19.1%
EXCELLENT	≥ 0.70	17709870	12.4%

Spectral Indices



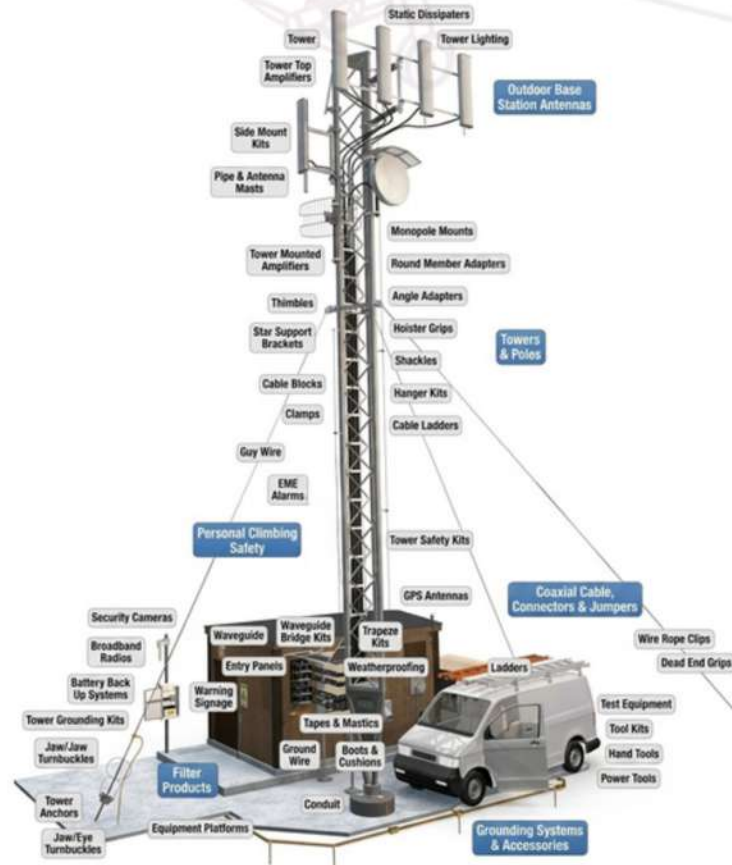


SERVICES

Telecom Tower & Infrastructure Inspection

This service creates accurate digital records of infrastructure by mapping towers, pipelines, and utility components, replacing manual documentation with structured GIS-based asset registries providing unified national/city-level views.

High-resolution aerial imagery with precise GPS data is processed into georeferenced maps and databases including structural details, access routes, and terrain context via centralized platforms. Utility providers, telecom operators, and governments improve asset visibility, maintenance planning, decision-making, and long-term infrastructure management.





SERVICES

Drone Commissioning & Training

ANTS delivers end-to-end UAV readiness beyond drone supply, with Drone Commissioning transforming enterprise-grade UAVs through hardware inspections, firmware setup, sensor calibration, safety checks, and validated test flights for reliable performance.

Drone Training builds skilled teams via classroom theory, simulator practice, and hands-on flights covering operations, mission planning, maneuvers, maintenance, and regulatory compliance. Agriculture, construction, surveying, security, environmental monitoring, infrastructure, energy, and government sectors gain reduced risks and seamless field deployment.





SERVICES

Customized Mission-Specific UAV Platforms

This service designs purpose-built UAV systems for specific operational needs, engineered to match unique mission requirements, environmental conditions, and performance expectations across industrial applications.

Custom airframe design, payload configuration, and system optimization are refined through iterative prototyping, engineering, and field validation for stability, efficiency, and real-world reliability. Defense, infrastructure inspection, environmental monitoring, disaster response, and research enable complex missions like tactical surveillance and emergency operations with superior precision.





SERVICES

Drone Light Shows

This service delivers large-scale aerial entertainment using coordinated drone fleets to create animated light formations in the night sky, transforming events into visual storytelling platforms with synchronized movement and brand-oriented designs.

A centralized swarm control platform manages positioning, flight paths, real-time synchronization, high-brightness LED payloads, and precision positioning for accurate formation control and safety. Events, entertainment, tourism, education, and government use it for festivals, corporate launches, national celebrations, immersive branding, and audience engagement.





PRODUCTS

ANTS Atlas

A centralized intelligence platform that transforms drone-captured data into structured, actionable insights, enabling governments, agricultural bodies, and infrastructure managers to plan, monitor, and make decisions with precision from a unified digital environment.



Core Capabilities:

- Orthomosaic map
- Yield forecasting
- Crop health monitoring
- Digital twin modeling

More features:

- Converts aerial imagery into GIS-ready datasets and analytics
- Enables large-scale land digitization and asset mapping
- Reduces dependency on manual surveys and human error

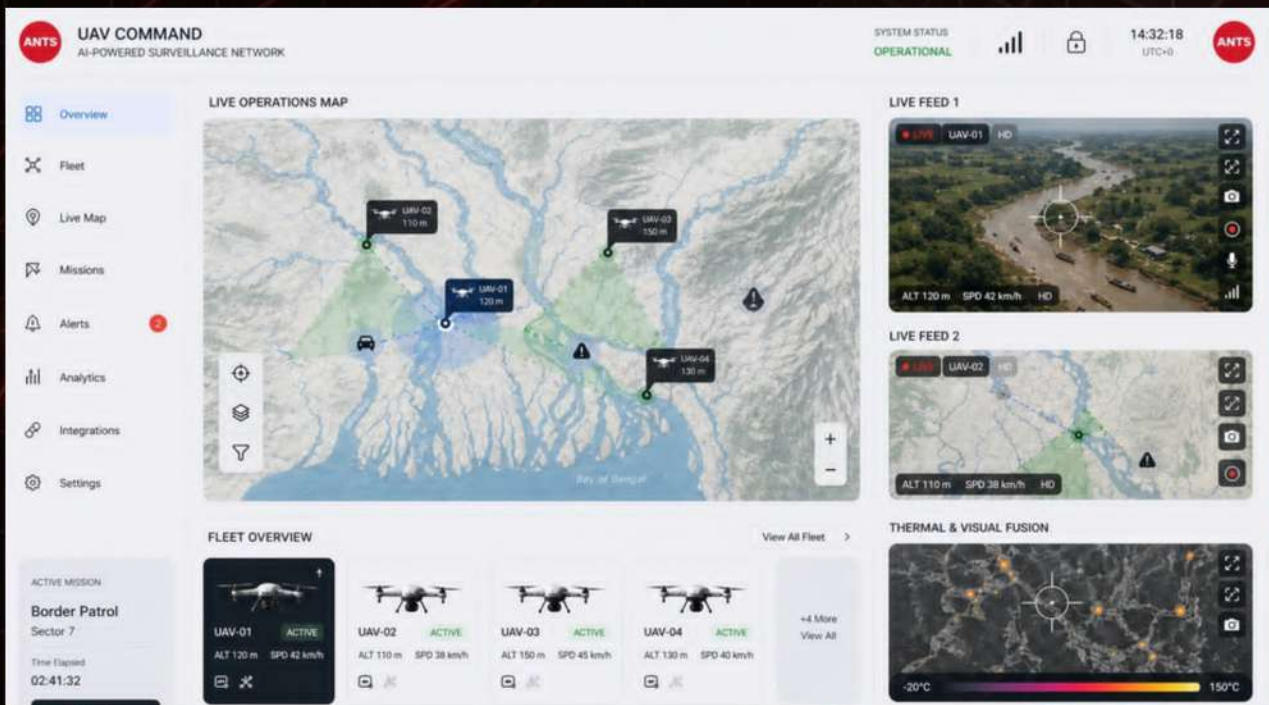




PRODUCTS

ANTS Sentinel

A multi-UAV aerial surveillance and response system that unifies an entire drone fleet into a single AI powered command network, delivering continuous, real-time situational awareness across wide operational areas for law enforcement, armed forces, and emergency response units.



Core Capabilities:

- Multi-UAV centralized command & control
- Live HD video transmission
- AI-assisted object detection & tracking
- Thermal and visual imaging fusion

More features:

- Encrypted, redundant communication protocols
- Bonding encoder support for seamless multi-network video aggregation, ensuring uninterrupted transmission across cellular, Wi-Fi, and satellite links simultaneously
- Body unit compatible with existing CCTV camera infrastructure, enabling direct integration with fixed surveillance networks for a unified monitoring ecosystem

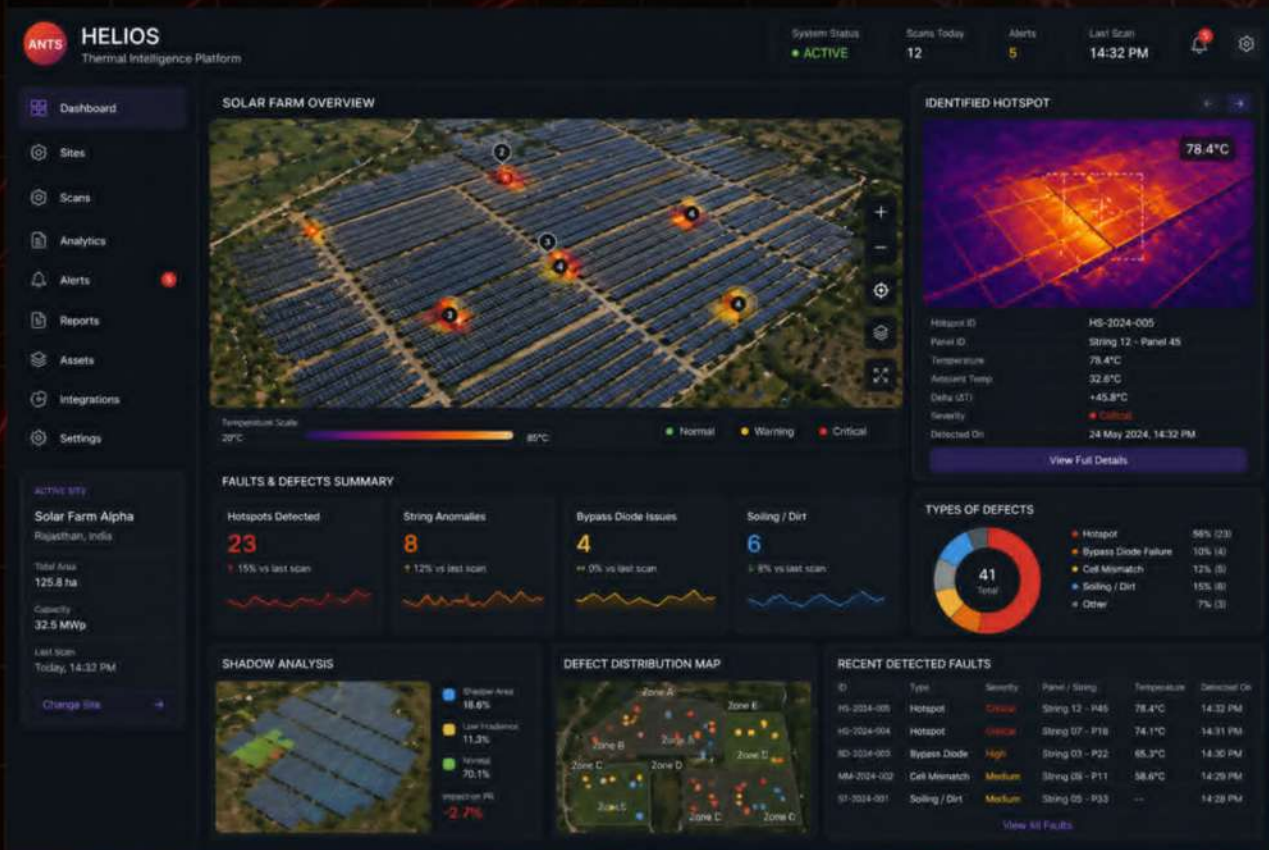




PRODUCTS

ANTS Helios

A drone-integrated thermal intelligence solution that captures and analyzes heat signatures to detect anomalies, optimize performance, and enable predictive maintenance across industrial, agricultural, and infrastructure environments.



Core Capabilities:

- High-resolution aerial thermal imaging
- Fault detection for electrical, mechanical, and structural systems
- Crop stress & irrigation efficiency mapping
- Solar panel hotspot & performance analysis

More features:

- Non-contact inspection of critical assets in hard-to-reach areas
- Rapid large-area scanning compared to manual methods
- Early anomaly detection reduces downtime and maintenance costs

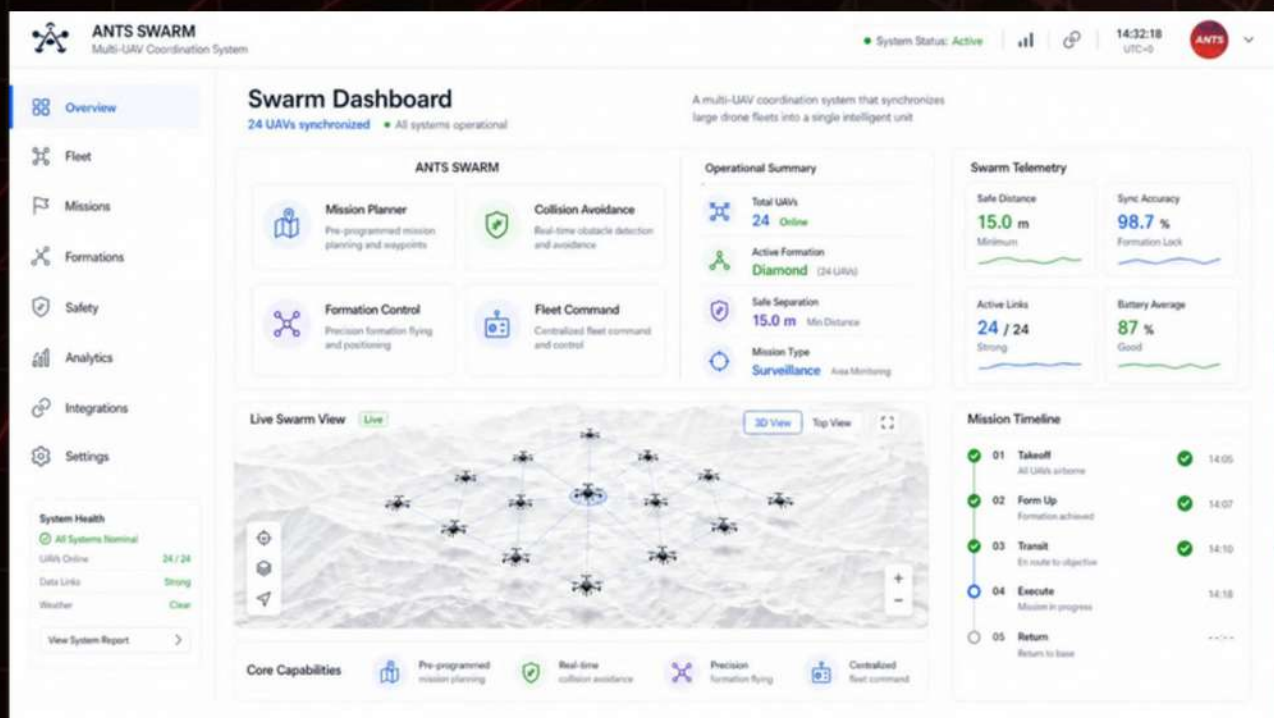




PRODUCTS

ANTS Swarm

A multi-UAV coordination system that synchronizes large drone fleets into a single intelligent unit, enabling precision formation flying, large-scale aerial operations, and coordinated mission execution from one command interface.



Core Capabilities:

- Pre-programmed multi-drone mission planning
- Real-time collision avoidance & safe separation
- Precision formation flying with synchronized timing
- Centralized fleet command & control

More features:

- Single interface control for entire drone fleet
- Autonomous formation intelligence with real-time adjustments
- Self-correction during positional deviations

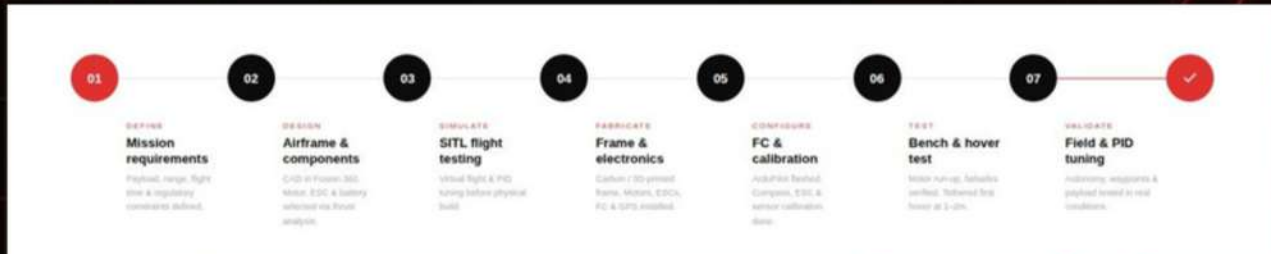




PRODUCTS

ANTS Genesis

A custom UAV development and engineering service that designs and builds mission-specific drone platforms and integrated hardware solutions for clients with specialized operational requirements.



Core Capabilities:

- Custom UAV airframe design & fabrication
- Payload integration & sensor customization
- Embedded systems & firmware development
- Flight controller tuning & performance optimization

More features:

- End-to-end development from concept to deployment
- Tailored solutions for defense, industrial, and research use
- Iterative testing ensures real-world performance reliability
- Designed for missions beyond off-the-shelf drone capabilities





CLIENTS & GLOBAL PARTNERSHIPS

Government and Private Clients



Ministry of Road Transport and Bridges



Ministry of Planning



Ministry of Disaster Management and Relief
Government of the People's Republic of Bangladesh



ICT Division



Land Ministry



কৃষি মন্ত্রণালয়



DHAKA WASA



PETROBANGLA
Bangladesh Oil, Gas and Mineral Corporation



grameenphone



JSUV
Jamuna Gas
Since 2000





CLIENTS & GLOBAL PARTNERSHIPS

Authorized Dealerships & Global Partnerships



DIGITAL EAGLE



GEOSCAN



Hocell





RECOGNITION AND GLOBAL IMPACT





TEAM



Tausiful Islam
CEO



Message from the CEO

In an era of rapid technological advancement, ANTS is committed to transforming industries through innovative drone solutions. From infrastructure inspection and agriculture to disaster response and mapping, we aim to deliver smarter, safer, and more efficient operations across Bangladesh and beyond.

With a passionate team and a vision focused on innovation, ANTS continues to push the boundaries of drone technology to create real-world impact for industries, organizations, and communities.



 **Salim Sadman Bishal**
COO



 **Samin Hasan**
CTO



 **Dewan Fahim Faisal**
Program Management Lead



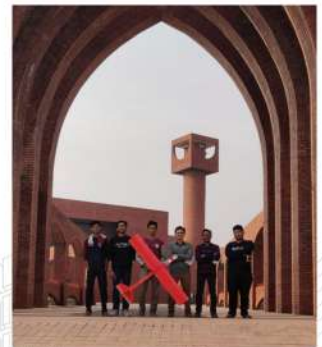
 **Shah Jawad Islam**
Technical Operations Lead





CULTURE & WORK ENVIRONMENT

ANTS maintains a dynamic, young and innovation-driven culture centered in our Dhaka headquarters, supporting nationwide client deployments through coordinated field teams and partner networks. We emphasize collaboration, continuous learning, and work-life balance to empower our team in delivering cutting-edge drone solutions for mapping, inspections, agriculture, and enterprise applications.



FLY BEYOND LIMITS



At ANTS, we don't just deliver services, we create lasting impact through innovation, trust, and excellence. Every project we undertake is driven by passion, precision, and a commitment to helping businesses grow in a changing world.

Partner with ANTS for cutting-edge drone solutions tailored to Bangladesh. From mapping and inspections to agriculture and aerial innovation, we deliver proven results nationwide.

Ready to start? Contact us for demos, custom solutions, or collaboration.



ANTS Aerial Systems Ltd.
ANTS Drone Hub



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