



ADVANCED AERIAL DRONE INSPECTION SYSTEM



CONTACT-BASED ASSET INSPECTION FOR ELEVATED AND HARD-TO-REACH AREAS

SYSTEM OVERVIEW

Aerial inspection drone equipped with robotic payload delivery system that enables high-precision deployment of inspection tools in environments that are otherwise hard to reach or hazardous to personnel. Designed for industrial applications, this system provides contact-based inspection methods such as ultrasonic thickness, phased array, electromagnetic testing, and visual inspection, without the need for scaffolding, rope access, or plant shutdowns.



APPLICATIONS

Advanced aerial drone system offering unparalleled performance for remote visual and NDT

- Tanks
- Pipetracks
- Flare Stacks
- Columns / Towers
- Structures
- Confined Spaces
- Marine Structures
- Any much more!

SYSTEM ADVANTAGES

- **Reduces Risk** — Keeps workers out of dangerous environments
- **Minimizes Downtime** — Most inspections completed with minimal disruption
- **Lowers Costs** — Removes the requirement for additional resources or equipment
- **Increases Accuracy** — Enables direct placement of sensors for reliable results
- **Improves Efficiency** — A small team can inspect large, complex assets in hours

INTEGRATED INSPECTION DATA PLATFORM

- Real-time visual and sensor-based data capture
- Automated reporting with imagery, video, and inspection data graphs
- Centralized, cloud-based storage for team-wide access
- AI-enhanced analysis for faster decision-making

LOWER YOUR RISK. MAXIMIZE RELIABILITY. ELEVATE YOUR INSPECTION.



CORE FEATURES

- 3D Mapping & Autonomous Navigation
 - » Uses LiDAR to map complex environments in real-time
 - » Supports repeatable inspections and precise flight control
- Robotic Payload Delivery Arm
 - » Secure magnetic attachment to pipes, tanks, walls, or ceilings
 - » Deploys inspection tools like magnetic crawlers directly onto the asset surface
- Flexible Power Options
 - » Tethered Power: Continuous flight for extended inspections
 - » Battery Power: Independent, untethered operation in confined or remote spaces
- Real-Time Data Relay
 - » Transmits live inspection data during operation
 - » Compatible with multiple contact and non-contact inspection methods



ROBOTIC ARMS (PAYLOAD)

FEATURE	DESCRIPTION	
Delta Arm	Scanning rotary arm, optimized for 2" x 2" UT measurements	
SPARM Arm	Rotary arm with integrated surface preparation and ultrasonic (UT) measurement capabilities	
LONG Arm	Highly maneuverable 3-pivot arm designed for stiffener (side frames) measurements (very hard to reach area)	
LITE Arm	Single point rotary arm measurement with the guided attachment (any curvature > 2.5")	
Advanced Mini-Crawler Flying Robot	Miniatures size (13x27x13 cm / 5.12"x10.63"x5.12") 1.8 kg / 2.21 lbs base weight Visual Camera (3 cameras on board) Laser pointer & LEDs NDT sensors (DFT, EMAT, UT, PAUT)	