



RMDS[®]

**AI-Powered Mine Detection.
All in One System.**

Smart autonomous connected aerial system

RMDS[®] Xplorer One is an autonomous UAV system able to identify surface-laid and buried explosive hazards with high accuracy while keeping personnel at a safe standoff. It provides near real-time mapping of threat locations using multispectral sensing and on-board processing. The detection of explosive threats is entrusted to the advanced artificial intelligence algorithm that works on the system's on-board computer

Ready to use tactical solution

RMDS accelerates clearance timelines and reduces risk to personnel by combining high-accuracy airborne detection with rapid area coverage without manual data interpretation. RMDS's design enables rapid deployment across diverse operational environments, supporting both route clearance and large-area demining missions.

Output is transmitted via encrypted radio system or 5g Mesh or Mavlink to the rugged portable Ground Station. Also available as a lightweight Black Unit payload, it can be mounted on any commercial drone in under two minutes, delivering full RMDS[®] capabilities in a portable format.

50 min
Max flight time

<5 min
Deployment time

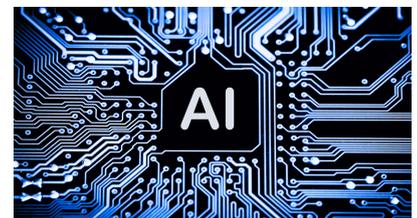
3 ha/hr
Operational coverage

15 Km
Best conditions
Flight Range



Multispectral detection

- High-resolution multispectral imaging
- Optimized for surface and shallow subsurface detection



Onboard Intelligence.

- Artificial Intelligence & Machine learning detection
- Ready to support C2I operations
- Jamming and Spoofing immune



Ready anywhere, anytime.

- Easy to Use Graphic User Interface
- No operator needed on the field
- Works in high-temperature, dust, or GNSS-denied zones



Technical Specs



Type	Quadrotor UAV
Dimensions	1150 x 1150 x 350 mm (open propellers)
Maximum Takeoff Mass (MTOM)	15 kg
Payload	Integrated: Multispectral Camera + Laser Range Finder (LRF) + High Performance On Board Computer (OBC)
Max Endurance	Up to 50 minutes
Max Speed	10 m/s
Operational Speed	3 m/s
Operative Flight Distance	3 km
Environmental Limits	Wind \leq 14 m/s, Temperature -20°C to +60°C
Ingress Protection	IP55 – Dust and rain resistant
Battery Type	LiPo / Li-Ion 12S – 30,000 mAh – 5C
Video Transmission	Onboard FPV camera
GNSS Navigation	GPS + GLONASS + BeiDou + Galileo (RTK optional)
Positioning Accuracy	0.2 m horizontal / 0.1 m vertical
Link Band & Range	2.4 GHz, up to 15 km (ideal conditions) + optional mission link
Anti-jamming Options	Compatible with MIMO / MESH radio systems