NOVAdrone EM61Lite
Drone Metal Detector - Integrated System

The EM61 is a **high-sensitivity, high-resolution, time-domain metal detector** suitable for the **detection of both ferrous and non-ferrous metals** with a drone to locate metallic objects in hard-to-reach or hazardous areas.

The system is optimized for use on the NOVAdrone P800 drone, with TTF (True Terrain Follow) to maintain a constant flight altitude and automatic mission planning. However, the system can also be configured on various types of platforms, including both drones and ground rovers or towed as a trailer by a person or a vehicle.

Applications:

UXO Detection
Accurately identifies unexploded ordnance targets without entering the dangerous area.

Environmental
Locates underground infrastructure (metal pipes and cables) and any metallic waste.

Archaeology
Surveys vast areas and allows potential archaeological sites to remain undisturbed.

The typical target response is a single, sharply defined peak, facilitating quick and accurate determination of the location. The achievable depth of detection will depend on various target characteristics, where surface characteristics and target orientation are of particular importance. For example, a single 200-liter drum can be detected at depths greater than three meters.

NOVATEST
Engineering Solutions

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Technical Features:

EM Source	Air-cored coil, 1 x 0.5 m in size
Current waveform	Unipolar rectangular current with a 25% duty cycle
EM Sensore	• Main: Air-cored coil, 1 x 0.5 m in size, coincident with the EM source • Focusing: Air-cored coil, 1 x 0.5 m in size, positioned 30 cm above the main coil
Dynamic range	18 bits
Data storage mode	Onboard PC on the drone
Data output	RS232 serial port, Bluetooth (optional)
Power source	12 V rechargeable battery
Operating temperature	-30°C a +60°C
Weights and dimensions	6.8 kg (including the battery); 100 x 50 x 5 cm (bottom), 100 x 50 x 2 cm (top)

Accessories:

The complete system comes with:
- High-performance quadcopter drone NOVAdrone P800
- SkyHUB onboard electronics
- True Terrain Follow (TTF) system mounted on an extended arm to read the flight altitude outside the sensor footprint
- Battery and connecting cables
- EM61 Lite Metal Detector
- Flight case
- Manual
- Training on system usage

* Different configurations available upon request