

DREYE

The DREYE UAV offers unmatched operational flexibility with its dual-power architecture, allowing seamless transitions between solid-state batteries and a tethered supply for unlimited flight autonomy. Designed for precise environmental surveillance, it integrates high-resolution optics with advanced multi-gas detection sensors to monitor atmospheric pollutants in real-time. This continuous data is instantly processed into intuitive 3D visualizations, ensuring comprehensive awareness for long-duration static missions.

- Tether system with 100m cable
- Tether system comprises a 21 kg ground unit and 0.9 kg airborne unit



Microphone for noise pollution monitoring

Sniffer4D Mini2 air quality sensor

Epsilon 140 LC EO/IR gimbal

Flight characteristics

MTOW	14.8 kg
Mass without batteries	10.6 kg
Mass with batteries	14.8 kg
Flight autonomy with batteries	Up to 40 minutes
Flight autonomy with tethering system	Unlimited
Range	Up to 5 km Line of Sight (AES 128)
Frequency	2.4 Ghz
Rescue / emergency	2 x anti-drowning systems

Aircraft type and airframe

Motor-to-Motor diameter	Ø1200
Height	480 mm
UAV configuration	Multi-rotor
Number of motors	6
Propeller dimension	Ø22.2in
Other	Modular assembly

DREYE

40 min 5km 14,8 kg

- Unlimited flight autonomy with tethering system
- Flight controller features triple IMU redundancy

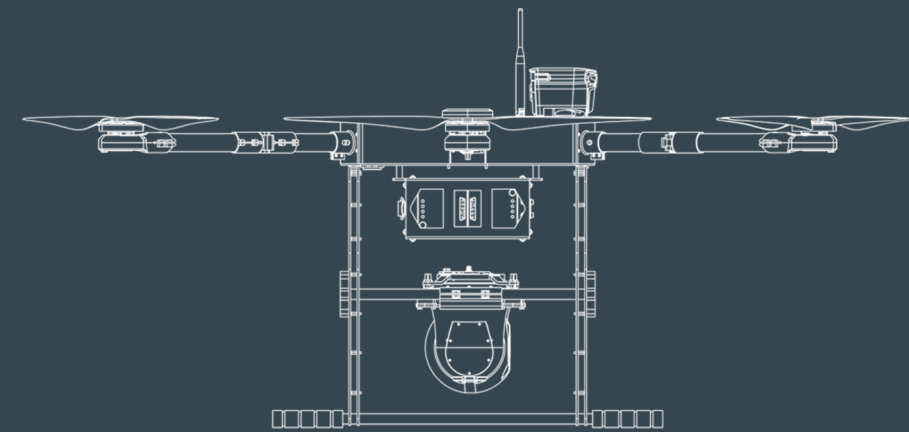
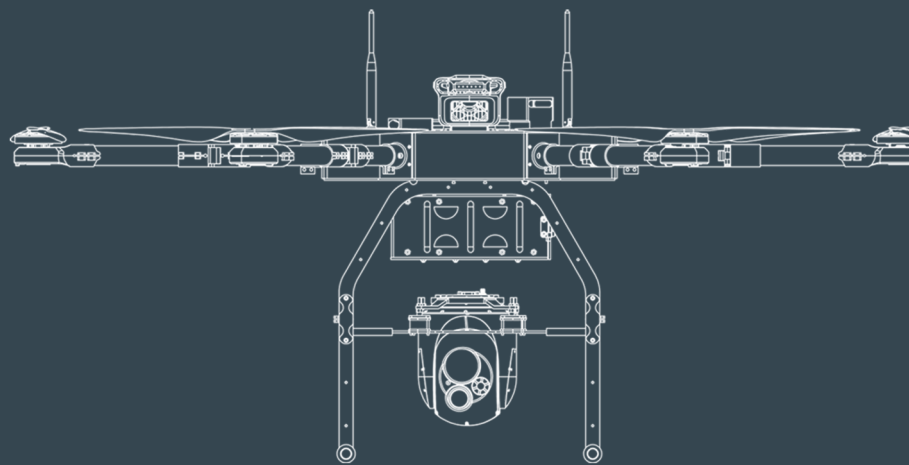
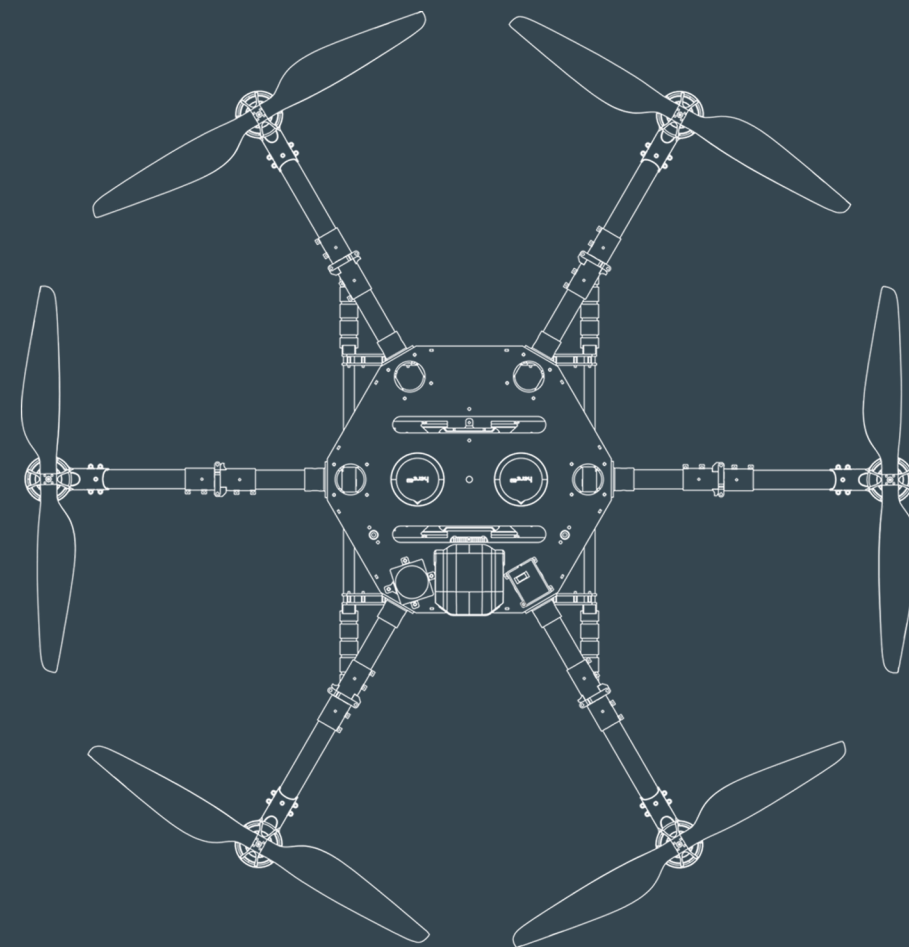
Payload

- Optical camera: Epsilon 140 LC**
- Thermal Sensor: 640×512 resolution (LWIR) with 4x digital zoom
 - Visible Camera: HD daylight camera with 45x optical zoom
 - Gimbal System: 2-axis mechanical / 3-axis electronic stabilization, 360° Pan and -67° to +35° Tilt.

Power Tethering System for UAV with 100 m Cable Length

- Protection Rating: Ip44
- Maximum Operating Altitude: 3000 m
- Storage Temperature Range: -20°C to +50°C
- Data Transfer Rate: Up to 100 Mb/s
- Operating Power: 3000W

- Air Quality Sensor (Sniffer4D Mini2)**
- Inhalable Particulate Matter (PM1.0 & PM2.5 & PM10) Sensing Module
 - High-resolution O₃ + NO₂ Sensing Module
 - Wide-range CO₂ Sensing Module
 - Wide-range SO₂ Sensing Module
 - Temperature & Humidity Module



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UNMANNED AIRCRAFT SYSTEMS

DREYE



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ROMANIAN RESEARCH &
DEVELOPMENT INSTITUTE FOR
GAS TURBINES

Command is maintained by the Mobilicom 8" Controller Pro, a rugged IP65-rated ground station featuring a high-brightness display and Intel processing for precise operation in any weather. The system utilizes the SkyHopper Pro datalink to ensure mission integrity, offering up to 5km of range with military-grade AES encryption and real-time protection against jamming and cyber-attacks. This robust combination guarantees interference-free video and data transmission even in hostile environments.