PLATFORM DATASHEET · HEXA · OCTO

Heavy-lift multirotor drones

STATUS · AVAILABLE

Biggen AEROSPACE
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Hexacopter and octocopter platforms built for sensor integration, flown on DRDE's air-quality sampling and disinfectant-spraying programme.



Large hexacopter with folding carbon arms on top of its transit case

MISSION ROLES

- Air-quality and CBRN sampling with client-supplied sensors
- Pre-approved waypoint missions with scheduled hover points
- Disinfectant and liquid spraying
- Real-time video and payload monitoring from the ground station

PAYLOAD OPTIONS

Air-pollution sensor payloads [AVAILABLE]
Four client-developed sensor types, 1–5 kg, volume under 6,615 cubic inches, mounted one at a time

Extended air-sampling pipe [AVAILABLE]
Intake longer than the rotor arms to sample clean air

Disinfectant spray [AVAILABLE]
5 kg payload, under 5 litres, nozzle attachment

EO/IR gimbal [IN TRIALS]
Stabilised camera for inspection and survey

SPECIFICATION

PERFORMANCE	
Airframe	Hexacopter or octocopter, hovering capable
Propulsion	Fully electric
Take-off and landing	Vertical
Payload capacity for sensor and components without compromising endurance	up to 5 kg
Endurance	≥ 20 min
Operating range visual line of sight	2 km horizontal · 200 m vertical
AUTONOMY AND CONTROL	
Mission planning	Autonomous GPS waypoint flight plan
In-flight re-planning	Flight path adjustable in real time from the ground station
Hover	User-defined hover points per schedule
Emergency recovery	Auto return-to-home on link loss, low battery or high wind
Fail-safes	Multiple fail-safe options
GROUND SEGMENT	
Ground control station	Laptop-class GCS with GIS mapping
Video	Real-time video feed of the field and payload screen
Telemetry	UAV tracked live via the ground station

ENVIRONMENT	
Operating temperature	10 – 50 °C
Wind resistance	up to 25 km/h
Terrain	All terrains

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