

AERIALOOP



ALT6-ISR DRONE

Unlimited Command and Control Range
(Embedded LEO Satellite Antenna)

The ALT6-ISR is a next-generation VTOL platform specifically designed for ISR (Intelligence, Surveillance, and Reconnaissance) missions. It supports fully autonomous flights, vertical takeoff and landing, and predefined waypoint navigation, significantly reducing the cost per patrolled kilometer compared to traditional drone systems.

Its proprietary design includes an embedded LEO satellite antenna, enabling real-time video and data transmission with effectively unlimited range. This eliminates dependence on ground-based antennas and ensures persistent connectivity, even in the most remote areas—enabling true remote operations.

The platform includes unique safety features such as motor redundancy, no single points of failure, and an integrated ballistic parachute. It is compatible with custom sensor payloads up to 1.5 kg, making it a versatile tool for law enforcement, industrial surveillance, infrastructure monitoring, and border control.

On its base configuration it is equipped with a 40× optical zoom day camera, advanced night vision, and a 3 km laser rangefinder, the ALT6-ISR delivers continuous, high-resolution, real-time surveillance. With wind resistance up to 15 m/s in cruise flight, light rain capability, a maximum recommended range of 80 km, and up to 70 minutes of endurance, it provides sustained air coverage for critical and remote operations.

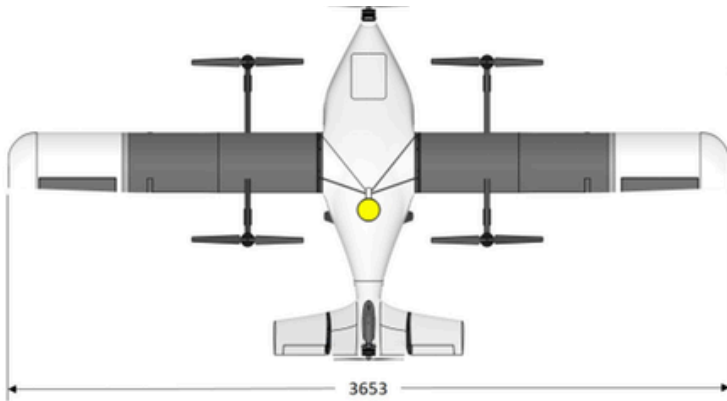


AERIALOOP

ALT6-ISR

Field-proven, results-driven

UNIQUE CAPABILITIES



Wingspan 3.65 m



Length 1.81 m

Embedded Satellite Antenna

Complete Starlink V3 Antenna in Fuselage, allows for unlimited data and telemetry range



Designed For Redundancy

2X Tilting motors (Front and Back) ensure horizontal flight redundancy, and 6X Vertical flight redundancy.

Ballistic Parachute System

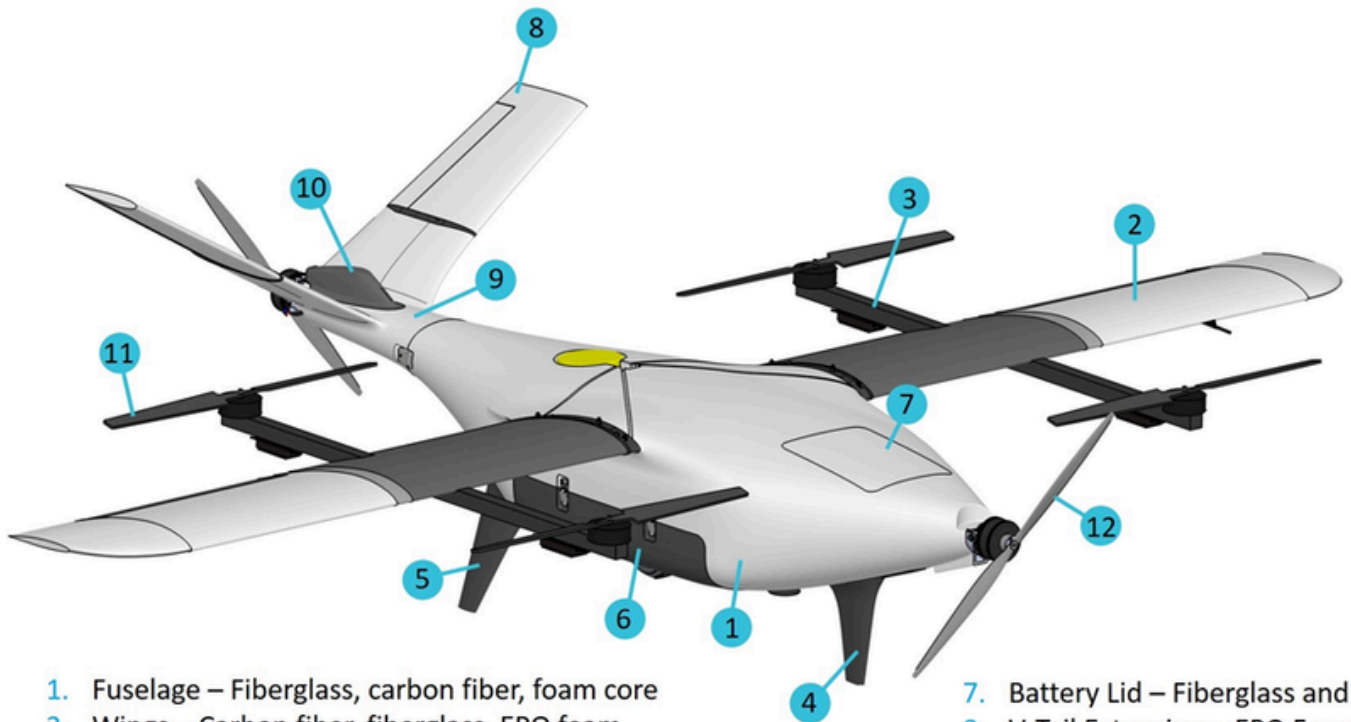



videosoft

Remote Command and Control

Our cloud infrastructure + LEO satellite + streaming services provide real time view and control of the camera and aircraft from anywhere in the planet with sub 200ms latency

DURABLE CONSTRUCTION



1. Fuselage – Fiberglass, carbon fiber, foam core
2. Wings – Carbon fiber, fiberglass, EPO foam
3. Multicopter arm - Aluminum
4. Front Leg – fiberglass and foam core
5. Main Landing Gear Leg – Fiberglass and foam core
6. Belly Pod – Carbon fiber and foam core

7. Battery Lid – Fiberglass and foam
8. V-Tail Extension – EPO Foam
9. V-Tail Cone – Carbon Fiber
10. Tail Hump – Carbon Fiber
11. Copter Propeller – Carbon Fiber
12. Front and Aft Propeller – Wood



Large payload bay size and volume for its category, which allows different types of sensors to be integrated into the aircraft

TECH SPECS

ALT6-ISR	
Configuration	ALT6-ISR LW
Drone Type	Fixed-Wing VTOL (Vertical Take-Off and Landing)
Battery Size	31.500mAh 12S
Type of Power	Fully electric
Maximum Range (km) (Ideal International Standard Atmosphere ISA, no Wind) (km).	80
Maximum Endurance (min) (Ideal International Standard Atmosphere ISA, no Wind)	72
Mission Planning Program and Control Software (GCS)	AirRails GCS. Intuitive mission planning with 3D terrain utilization capability. Flight monitoring, possible emergency commands: RTH, pause, Land here, Parachute, mission waypoints, etc.
Payload Volume	42cm x 42cm x 12cm (Height)
Cruise Flight Speed	(19m/s) 68 km/h
Max. takeoff Weight:	21 kg
Temperature Range:	-10°C to 40°C
Meteorological limitations:	Light and consistent rain

TECH SPECS

ALT6-ISR	
Configuration	ALT6-ISR LW
Wind resistance during vertical takeoff and landing:	Level 4 (Between 5.6 m/s-8.2 m/s on Beaufort scale)
Wind resistance during cruise flight	15 m/s
Stall Speed	18 m/s
Vertical Takeoff/Land Speed	1.5 m/s
Max bank angle:	20 deg
Max Pitch Angle	+20 -20 deg
Max Load Factor	1.15
Fixed wing max climb/sink rate	5 m/s
Max. useful payload:	4kg (Starlink system uses 2.5kg of it)
Maximum takeoff altitude	4000 msnm
Minimal Takeoff Area	5x5 m

TECH SPECS

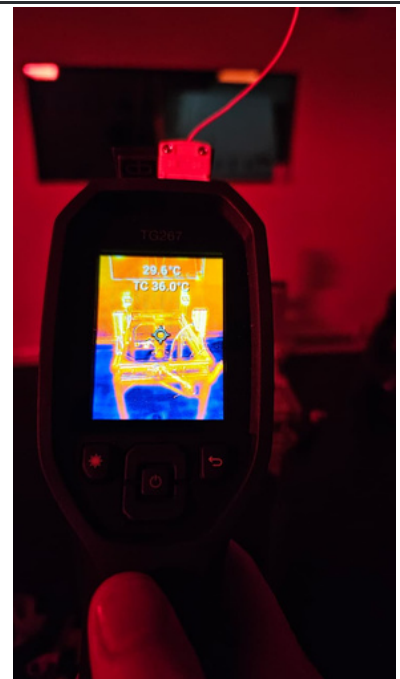
ALT6-ISR	
Video Camera Payload	1.5 kg, A40TR-Pro: 40X AI autonomous-identification and automatic Tracking Camera, IR Thermal Night Vision Camera, 3km Laser Rangefinder Target GPS Coordinate Resolving
Comms Satellite Link	Starlink V3 Satellite Antenna LEO satcom embedded in airframe. Unlimited live communication range in most countries in the world.
IP Rating.	IP45 (4: Protection against objects > 1mm (Limited Sand Ingress). 5: Protection against light Rain)
Safety Systems	Ballistic Parachute System
Type of Flights	Fully automatic, preset waypoints
Data and Telemetry Access	Worldwide
Live Streaming (VideoSoft)	Live feed and camera control, live stream sharing
Comms Kit Relay	Backup LOS data link for telemetry with proprietary cloud infrastructure



LAB TESTED

Our drones are tested in a controlled lab using industry best practices methods, following relevant sections of the MIL-STD-810H

Accelerated life cycle testing ensures reliability and maintenance intervals aligned with real-world operations.



ISR SENSOR

A40TR PRO | **40X** AI autonomous-Identification and automatic Tracking



Auto Identify & Tracking



2.13MP Effective Pixel



40x Optical zoom



640*512 12 μ mThermal



Onboard Video Encoding and Recording



3axis FOC Gimbal



3000M Laser range finder

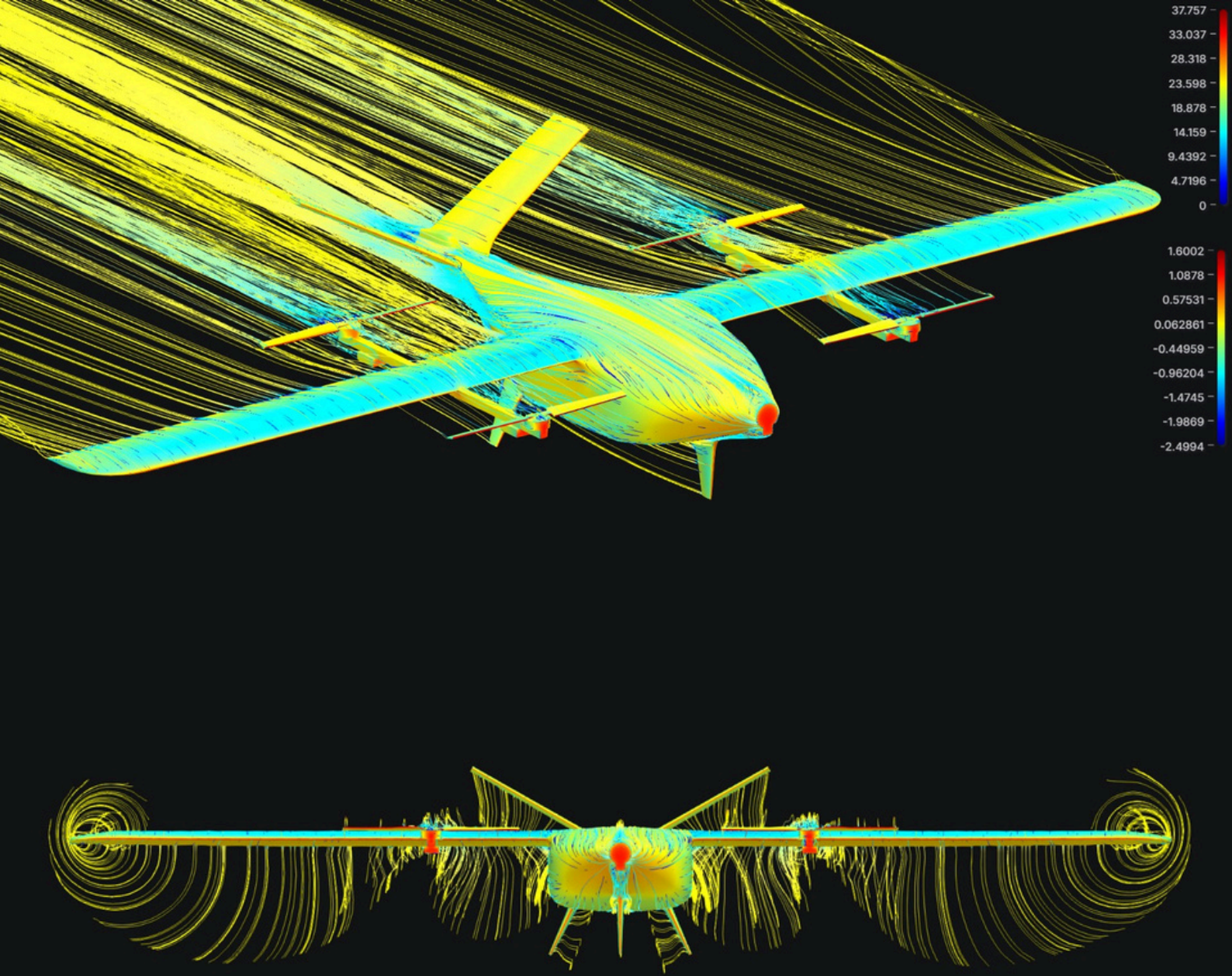


Viewport Quick-release connector



- **Visible Resolution HD 1920 x 1080, 40X Optical zoom + 32X Digital**
- **Thermal Resolution 640 x 512 , 8x digital zoom**
- **Laser Range Finder: for car \geq 3000m; for human \geq 2000m**
- **Autonomous-identification Target GPS Coordinate Resolving Camera Object Tracking**
- **Resistant to dust and water**





VERTICAL INTEGRATION

From aerodynamic design, accelerated life cycle testing in our lab, to more than 30,000 real flights and proprietary autopilot and copilot software. Nothing left to chance on your critical mission.