

FLYBOT-X

A High
Performance
Commercial Drone
FROM

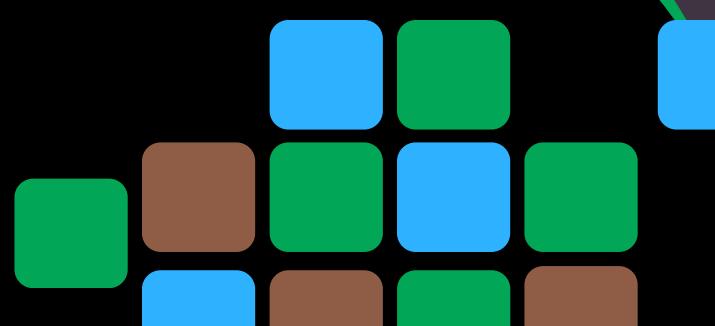


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FLYBOT-X

A High Performance Commercial Drone and UAV with the airframe Minimum takeoff weight 4 kg and Maximum takeoff weight of 7kg ,and is capable of executing rapid aerial surveys across vast and difficult terrain whilst maintaining high accuracy and even higher confidence. The FLYBOT-X comes equipped with a choice of payload sensors such as photogrammetry, ISR and multi-spectral or can be customized to suit your requirements or integrated with your existing payloads.



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APPLICATIONS OF FLYBOT-X



SURVEY AND MAPPING

The modularity of the FLYBOT-X gives the flexibility to do it all with one integrated solution. With both heavy lift capabilities and long endurance, FLYBOT-X is tailored for anything from a simple lightweight package to heavy multi-sensor setups.

LIDAR SURVEYS

Surveys for applications like electric utility lines, mining, topographic maps, vegetation management, and more.

PRECISION MAPPING

The Flybot-X enables the user to execute Precision-driven solutions that simplifies surveying and mapping processes with Dual GPS, mapping missions, capture high-resolution images, and create 2D and 3D maps.

SURVEYING & GIS

Surveying with FLYBOT-X offers enormous potential to GIS professionals. With a superior grade topographic survey quality with highly accurate measurements, but in a fraction of time. In addition to the reduced cost and man-hours.



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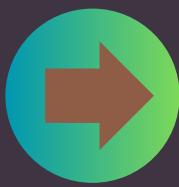
FLYBOT-X

FOR SECURITY AND DEFENCE USAGE

Unmanned aerial Vehicle (UAV) strategies are becoming increasingly critical to successful maritime and overland missions.



INTELLIGENCE, SURVEILLANCE & RECONNAISSANCE



FLYBOT-X is the perfect Unmanned Aircraft System (UAS) for Intelligence Surveillance & Reconnaissance (ISR) missions, giving coastal or land-based teams the tactical advantage needed to stay one step ahead of escalating threats. Equipped with an EO/IR, ISR and Thermal sensor combination, the FLYBOT-X offers to monitor infinitely more area compared to ground-based alternatives.

BORDER PROTECTION



Remote and difficult to access borders present authorities with challenging surveillance scenarios. 60+mins flight times and numerous payload combination options make the FLYBOT-X an invaluable asset for coastal and overland border monitoring operations.

LAW ENFORCEMENT



The FLYBOT-X can respond to the enforcement needs of a wide range of land border protection, coastal security, fisheries control, anti-piracy, oil and air pollution and anti smuggling policies. An unmatched small logistical footprint provides easy maintenance, transport, and preparation for takeoff in under fifteen minutes from remote sites near nonpermissive environments





FLYBOT-X

FOR CIVILIAN APPLICATIONS

FLYBOT-X, an UAV by TerraTech Aerospace can assist complex missions in civilian domains such as coast guard monitoring, disaster monitoring, search and rescue, and border control missions



CRITICAL INFRASTRUCTURE PROTECTION

Efficient and reliable aerial imaging capabilities enable the FLYBOT-X to be deployed to safely identify critical infrastructure defects and methane gas leaks. Compared to fixed-wing manned alternatives, inspections completed using UAS can be carried out time and cost-efficiently without the need for additional supporting infrastructure such as a runway.

ENVIRONMENTAL DISASTER MONITORING

FLYBOT-X can support the efforts to contain and monitor the effects of natural and man-made disasters with high accurate information. Land and sea-based emergency response services can benefit from the information provided by powerful EO/IR payload combinations capable of geo-locating victims.

SEARCH AND RESCUE

TerraTech Aerospace's UAV platforms are equipped to support higher severity level disaster recovery and rescue missions and in coordination of sea, land and air assets. Our multi-platform portfolio, with Remote Pilot Station (RPS) support from air, sea or land assets (or a combination) and can provide highly optimized co-ordination to customers in civilian and security agencies tasked with implementation of Search & Rescue (SAR) missions.

POLLUTION MONITORING

Controlling, containing and preventing pollution is key when protecting humans and wildlife across the world. Terra Tech Aerospace provides a range of command and control/surveillance options through its multi-role Vertical Take Off and Landing (VTOL) platforms to help prevent or mitigate natural or man-made disasters including oil and harmful chemical spillages



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SERVICES AND SUPPORT

We offer assistance in understanding the characteristics of the Unmanned Aerial Vehicle (UAV)

TARGETED SOLUTION

Our solutions package extends beyond the product and provides services of associated systems. These include ground control stations, communications links and data terminals together with managed services, enabling both military and civilian organisations to select the package that best meets their requirements.



FULL OPERATIONAL SERVICES

Our systems are designed to ensure a minimal logistical footprint, comprising a vehicle and ground control station. We offer professional support throughout Remotely Piloted Aircraft Systems (RPAS) project as per requirements. It could be writing the Concept of Operations or to train your personnel in RPAS Operations. We ensure that your missions are supported from day one.



FLEET MANAGEMENT

We ensure that your Remotely Piloted Aircraft Systems (RPAS) portfolio is fit for each mission. Please be assured that we are here to help, from maintenance scheduling to platform upgrades.



BACKEND SUPPORT

Experienced team at TerraTech Aerospace are domain experts in their respective fields. We have built a talented and a reliable team of operational, execution, maintenance and support function. Since we are invested in our human resource and have drawn talents from military and civilian sectors we are able to provide the best solutions to each of our customers.



TECHNICAL SPECIFICATIONS

AIRFRAME

FLYBOT-X airframe is the in house manufacture, made of lightweight carbon fiber and Aerospace grade 6061 aluminum alloy robust and compact design. The robust propulsion system provides dynamic, maneuverable flight even at max payload ratings.

GROUND CONTROL STATION

TTA Ground Control Station allows to intuitively pilot a FLYBOT-X UAV. Integrated shock-absorbent joysticks enable smooth flight control in all four drone-specific axes, user friendly mission planning and control, maximizing time in the air for integrated payloads and aerial survey and surveillance. This command and control package was designed with ergonomics, accessibility and portability in mind to supplement any terratech product.

NAVIGATION

Automatically execute pre-planned flights or adjust the mission in real time. Proprietary autopilot with DUAL GPS and redundant IMUs. PPK and RTK compatible, compass, and multiple failsafes

DUAL GPS FUNCTIONALITY

- Dual GPS enables PPK and GNSS to achieve centimeter-level accuracy, essential for surveying, mapping, and precision agriculture.
- Dual GPS reduces the impact of radio frequency interference (RFI) and multipath effects.
- By utilizing dual GPS for PPK and GNSS, drones can achieve exceptional positioning accuracy, reliability, and flexibility, making them ideal for demanding applications.



TECHNICAL SPECIFICATIONS

FOLDABLE PROPELLERS

Foldable propellers FLYBOT-X enables it to be stored in smaller spaces, making them easier to transport and manage.

DEPLOYMENT

FLYBOT-X is lightweight, compact, user friendly and can be deployed within 3 mins before takeoff.

LONG FLIGHT TIME AND SWAPPABLE PAYLOAD

With a flight time of up to 60mins will collect and cover a large area in a single flight. Has an option of swapping payload according to the requirements. Carries payload capability up to 2kg.

ACTIVE FORWARD LIDAR

Obstacle avoidance with forward facing with a range up to 40m used to detect and avoid objects oncoming.

POWER

4 x all electric VTOL motors , 21,000 mAh Lithium-Ion batteries.

BATTERY MODULE

- High energy density for extended flight times.
- Lightweight design for optimized UAV performance.
- High discharge rate for reliable power delivery.
- Long cycle life for reduced maintenance costs.
- Wide operating temperature range for harsh conditions



SENSORS

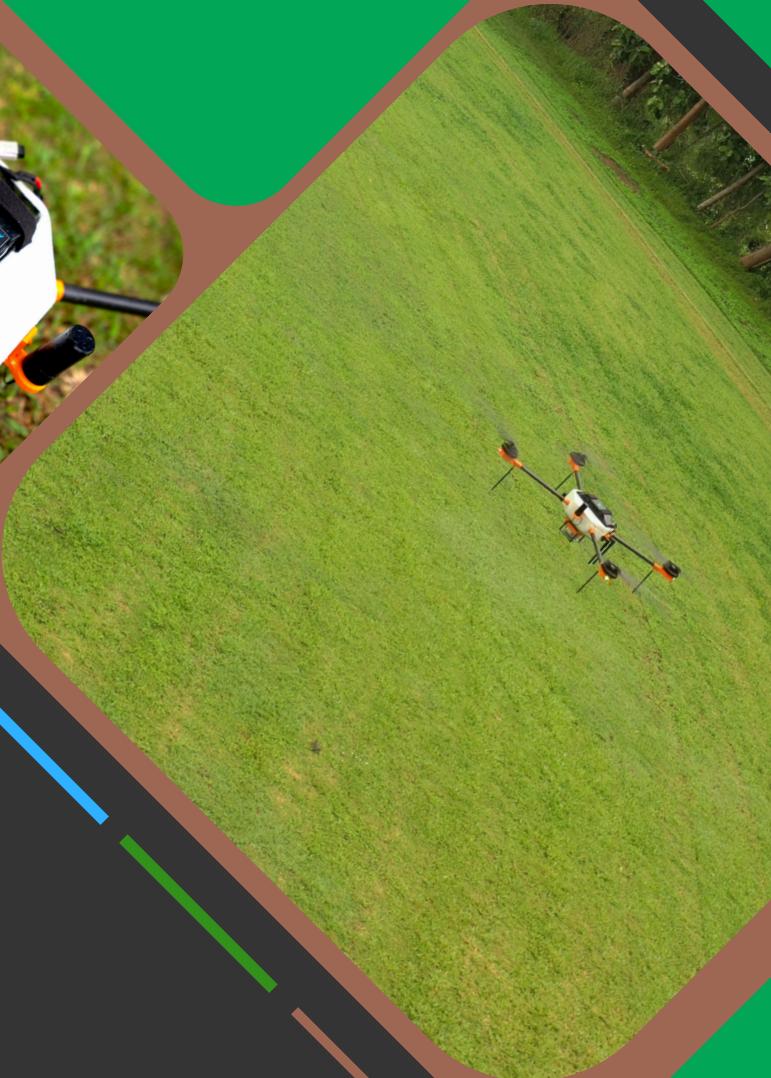
Alternatively, we can customize it to suit your requirements, integrating your preferred payloads. FLYBOT-X highly efficient airframe made from carbon fiber composites, combined with carefully engineered custom avionics hardware and software, ensure maximum return on investment for your business aerial sensing needs.

APPLICATION	PAYLOAD	DESCRIPTION
Photogrammetry	Sony Adti 24mp	High resolution camera for precision agriculture and linear asset monitoring.
Multispectral	Micasense	Still camera for precision agriculture, mining, conservation and vegetation monitoring.
Survey and mapping	YellowScan Mapper+	Still camera or LiDAR sensor for 3-D mapping, surveying, vegetation and linear asset inspection.
Thermal	FLIR	Gimbal camera with high bandwidth data link, visible and IR spectrum with object tracking AI and 360° live view.





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