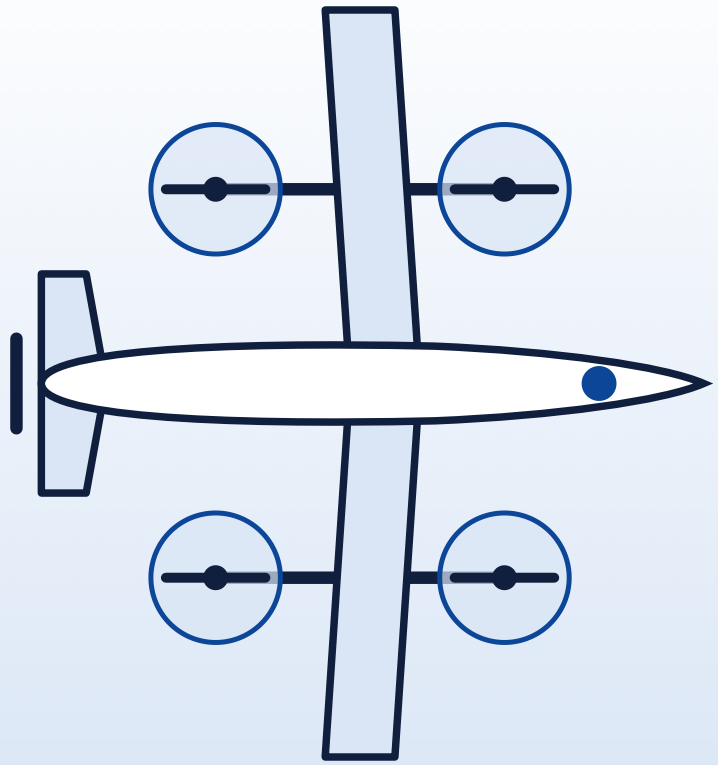
Agmay
TECHNOLOGIES



HYBRID FIXED-WING VTOL

AeroVTOL-X

Takes off from a clearing, then cruises on its 2.4-metre wing for up to two hours. Built for long corridor mapping, large-area survey and surveillance.

- Up to 120 min in the air
- Vertical take-off, no runway
- 2.5 kg payload

OVERVIEW

Take off like a drone. Fly like an aircraft.

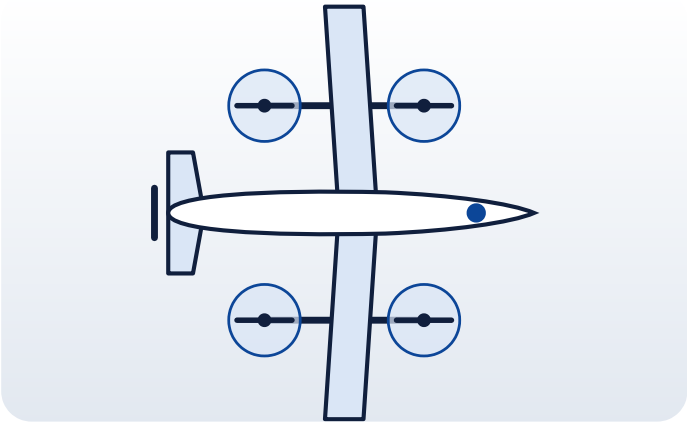
AeroVTOL-X takes off vertically, then cruises on a fixed wing for up to 120 minutes. One flight can cover a 40 km corridor or thousands of hectares with a mapping camera, oblique rig or LiDAR in the payload bay.

Multirotor drones are easy to launch but spend their battery holding themselves up. Fixed-wing aircraft fly far more efficiently but need a runway or a launcher. AeroVTOL-X does both: it lifts off and lands like a multirotor, and in cruise its wing carries the weight while a quiet pusher motor drives it forward.

90–120 min Flight endurance	**70–90** km/h Cruising speed	**40** km Corridor capacity per flight
5,000+ ha Area covered per sortie	**2.5** kg Payload, modular bay	**12** m/s Wind resistance

Highlights

- No runway: vertical take-off and landing from any clearing
- Up to 120 minutes in the air, covering 5,000+ hectares per sortie
- Brushless pusher motor for quiet, efficient cruise
- Modular bay for a 24 MP mapping camera, a five-lens oblique camera or LiDAR



What one flight can cover

Up to 40 km of corridor

Enough for a long stretch of highway, rail line or canal on one battery.

5,000+ hectares

Room for a large-area topographic survey on one battery.

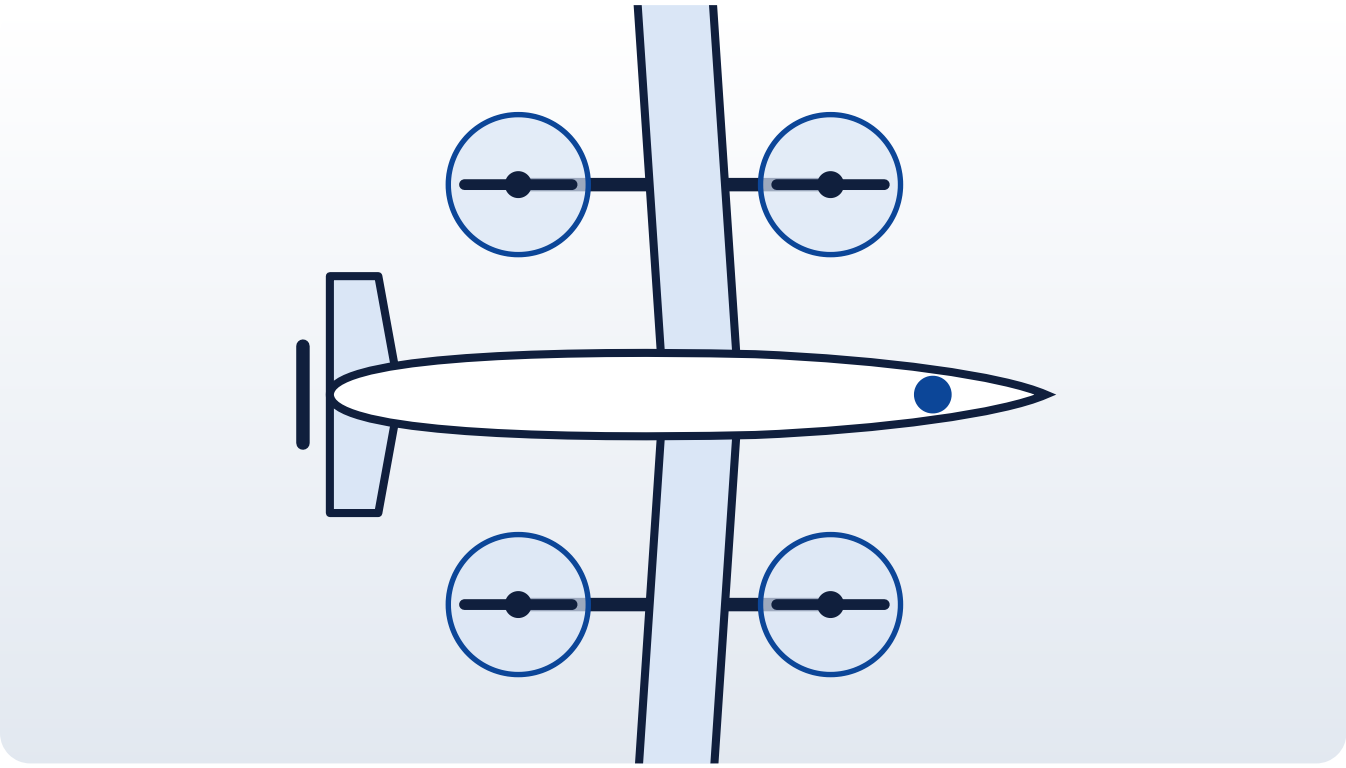
Up to 2 hours aloft

Long-endurance observation over a site, a route or an incident.

These figures describe the aircraft. Flights beyond visual line of sight need a specific DGCA authorisation; without one, long corridors and large areas are flown in sections within the pilot's sight.

DESIGN

Built for long, efficient sorties



Vertical take-off and landing

Lift rotors take it up from a clearing and set it down again, so no runway, launcher or recovery net is needed.

Pusher-motor cruise

Once at height, a brushless pusher motor drives it forward and the wing carries the weight, for quiet, efficient flight.

Composite airframe

A 2.4-metre wing of composite EPO with carbon spars keeps the aircraft light and stiff.

Industrial autopilot

PX4 / ArduPlane industrial autopilot with dual RTK positioning, for accurate, repeatable flight lines.

Modular payload bay

Carries up to 2.5 kg: a 24 MP mapping camera, a five-lens oblique camera or LiDAR.

Long-endurance battery

A 6S 22,000 mAh solid-state / Li-ion pack powers flights of 90–120 minutes.

SPECIFICATIONS

Technical specifications

Configuration	Hybrid fixed-wing VTOL with pusher motor
Take-off and landing	Vertical, from a clearing; no runway needed
Wingspan	2.4 metres (Composite EPO + Carbon Spars)
Maximum take-off weight	11.5 kg
Payload	Up to 2.5 kg, modular bay
Payload options	24 MP mapping camera, five-lens oblique camera or LiDAR
Flight endurance	90–120 minutes
Cruising speed	70–90 km/h
Top speed	115 km/h
Range	50+ km
Mapping coverage	Up to 40 km linear corridor per flight, or 5,000+ hectares per sortie
Wind resistance	Up to 12 m/s
Autopilot	PX4 / ArduPlane Industrial Dual RTK
Battery	6S 22,000 mAh solid-state / Li-ion
Ground control	MissionSmith AI GCS (by Kaelor Labs) or AeroGCS
Weight class	Small (more than 2 kg, up to 25 kg) under the Drone Rules, 2021

Specifications are for the standard configuration. Our engineers can change the payload, power system and software for your mission; please confirm the specification with us before you order.

PAYLOADS AND APPLICATIONS

One airframe, three kinds of data

24 MP mapping camera

Nadir imagery for orthomosaics, elevation models and contours.

Five-lens oblique camera

Five views at once, for detailed 3D models of corridors, towns and sites.

LiDAR

Laser returns that reach the ground through vegetation, for terrain models and point clouds.

Where it works best

- ✓ Highway, rail and canal corridor mapping
- ✓ Large-area topographic survey
- ✓ Long-endurance surveillance
- ✓ Mining and forestry mapping

Prefer a service?

Our certified crews fly the AeroVTOL-X on these services, so you can hire the work instead of buying the aircraft:

Drone mapping and photogrammetry
agmay.in/services/drone-mapping-photogrammetry/

Drone land survey
agmay.in/services/drone-land-survey/

Mining drone survey
agmay.in/services/mining-drone-survey/

Planning a mission

Room to climb out

Vertical take-off needs only a clearing, but the climb-out and transition to wing-borne flight need a clear path free of wires and trees.

Plan the whole corridor

Long corridors cross airspace zones and districts. Each zone is checked on Digital Sky, and the corridor is flown in sections that keep the aircraft within the pilot's sight unless DGCA has authorised flying beyond it.

Check wind along the route

It is rated for winds up to 12 m/s. Check the forecast along the whole corridor, not only at the launch site.

Ground control for accuracy

For survey-grade maps, combine its dual RTK with ground control points, and keep independent check points to verify the result.

HOW BUYING WORKS

From enquiry to first flight

1. **Tell us the job**
   Share the mission: range, payload, height and duty cycle. Our engineers in Hyderabad configure the aircraft around it.
2. **Plan and quotation**
   We come back with a plan and a quotation for the aircraft and its options: payload, power system and ground control software.
3. **Registration and pilots**
   The drone is registered on the DGCA Digital Sky platform for its Unique Identification Number (UIN), and your pilots need a Remote Pilot Certificate for its weight class.
4. **Training**
   We train your operators on the AeroVTOL-X and its software, and our academy runs the DGCA Remote Pilot Certificate course.
5. **Support**
   Spares, repairs and annual maintenance from our Hyderabad workshop.

Rules in India

With a maximum take-off weight of 11.5 kg, AeroVTOL-X is a small drone under the Drone Rules, 2021. It is registered on Digital Sky and flown by a pilot with a DGCA Remote Pilot Certificate that matches the aircraft's category and class. Our academy is authorised for small-class rotorcraft, so ask us about the training route for a fixed-wing VTOL.

Talk to us

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Aircraft drawings are illustrative. Specifications are for the standard configuration and may change. DGCA-authorised Remote Pilot Training Organisation No. 23/2025. © 2026 Agmay Technologies Private Limited.