

Upgrade the drones you already fly.

Onboard Edge AI, a 5G link and DroneAI C2 for the drones and rovers you already operate: faster decisions, longer reach, one Common Operating Picture.

RF Link (2.4 GHz)
5G Link (SA / NSA)
Edge AI Detection (on-board)

5G Link
Encrypted video, telemetry and detections over public or private 5G.

DRONEAI^{5G} Cloud / On-Prem

Command & Control Centre (DroneAI C2)

DRONEAI^{5G} C2 - Common Operating Picture

Team 1 Recon Patrol
Team 2 Flank Monitoring
Team 3 Perimeter Watch

Soldier's AI Dashboard (Tablet)

DRONEAI^{5G} 5G 85%
LIVE
ALT 120 m
SPD 12 m/s
BAT 78%
RC RSSI -72 dBm
Map Detections Mission Settings

- Edge AI on board**
Detects, tracks and geo-tags persons, vehicles and other objects, even without a network link.
- Reach further 5G beyond line of sight**
Control and live video over public or private 5G; the RF link stays as back-up.
- Upgrade, don't replace**
Fits the drones and rovers you already operate. Nothing is removed.
- One picture - DroneAI C2**
Common Operating Picture, fleet view, video wall and replay, on cloud or your own servers.
- Adapt fast - DroneAI Studio**
Train new classes on your own footage and update the whole fleet.

FOR SECURITY FORCES · ARMY · BSF · CISF · CRITICAL INFRASTRUCTURE

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PRODUCT BROCHURE 2026

Upgrade the drones you already fly.

Onboard Edge AI, a 5G link, DroneAI C2 and your own AI training with DroneAI Studio, for the drones and rovers already in service.

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BENEFIT · DECISIONS IN SECONDS, NOT MINUTES

Close the OODA loop with the drones in service

Drones already observe. Recognising, deciding and acting still run at human speed. DroneAI adds onboard Edge AI, 5G and a Common Operating Picture (COP) to the drones you already operate.

OBSERVE

Today: operators watch feeds for hours and miss small targets.

With DroneAI: Edge AI detects persons, vehicles and drones, day and night.

ORIENT

Today: what the drone sees stays on the pilot's screen.

With DroneAI: every detection reaches the C2 map as a geo-tagged alert in seconds.

DECIDE

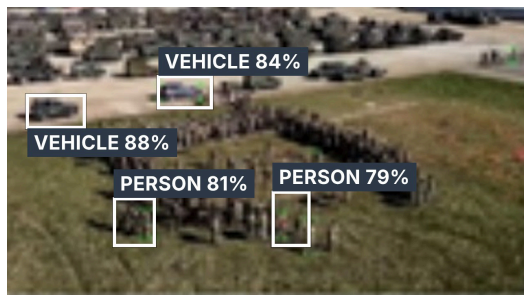
Today: DRI by eye; footage re-checked after landing.

With DroneAI: automated DRI, with targets ranked by priority.

ACT

Today: response cued late, by radio.

With DroneAI: task the nearest drone from the detection; grid shared with the response team.



Automated DRI, sent as data

Detection, recognition and identification run on the drone, on EO and thermal video. Each result reaches the control room as a record (class, confidence, time, location) that can be mapped, searched and reported.

Where it can be used

Critical infrastructure · CISF

Perimeter intrusion alerts at airports, ports, refineries and power plants, with location on the control-room COP.

Border and creeks · BSF

People at the fence and boats in creeks and riverine borders, detected at night; animals filtered out.

Unit perimeter · Army

Counter-infiltration along tree lines and approaches; every sortie saved and searchable.

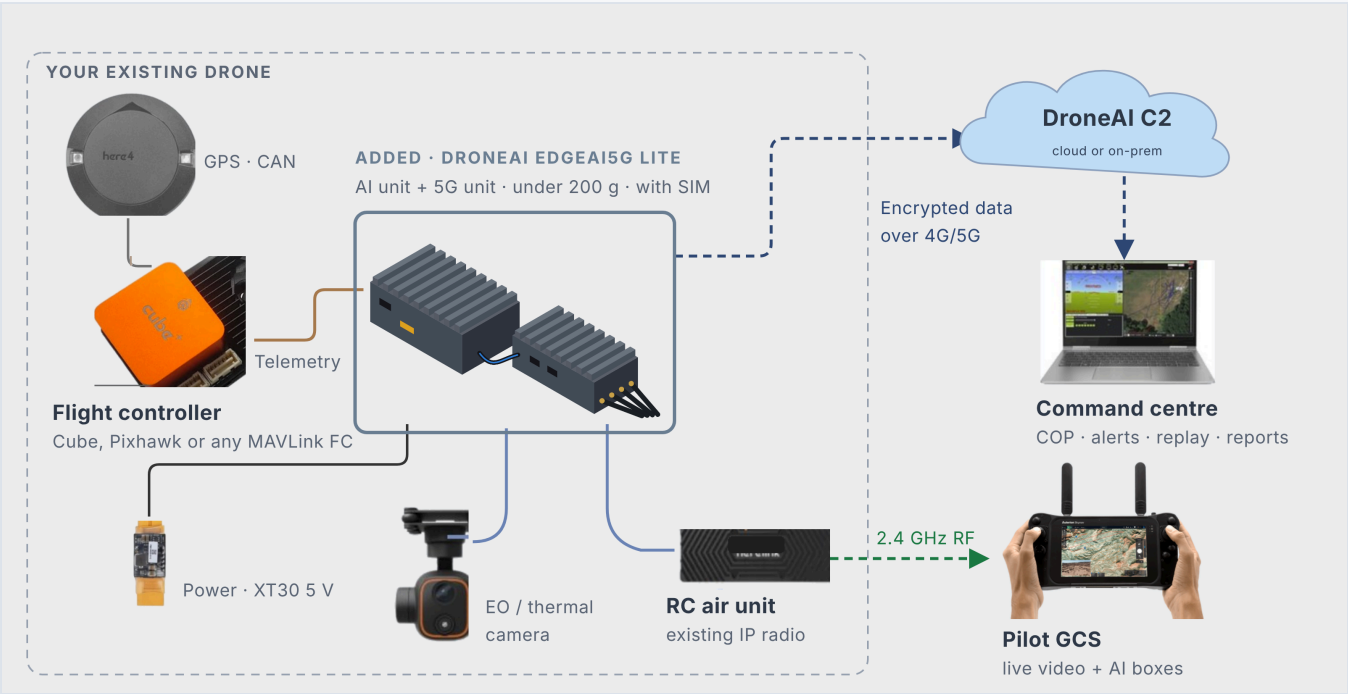
C2 redundancy

- 4G/5G runs alongside the existing RF link
- Edge AI keeps working on board if a link drops
- When video cannot pass, detections still go through as small data packets
- C2 on DroneAI cloud or on your own servers

BENEFIT · NOTHING REMOVED, NOTHING RETAINED

How it connects to your drone

One DroneAI module joins the flight controller, camera and RC radio you already have. The pilot keeps the RF link; encrypted 4G/5G adds a link to DroneAI C2. The same wiring applies to every upgrade kit.



On the drone Telemetry to the flight controller, Ethernet to the camera and RC air unit, 5 V power and a SIM. That is the whole install.	Over 4G/5G Encrypted video, telemetry and detections to DroneAI C2, on DroneAI cloud or your own servers.	Over the RC link The existing 2.4 GHz link still serves the pilot, now with AI detections on the camera feed.
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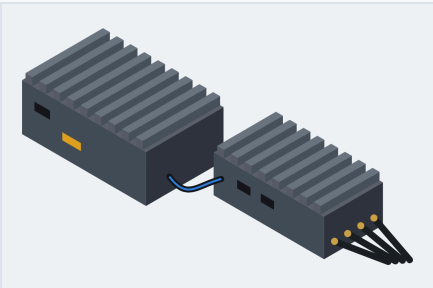
Which product sits where

IN THE DIAGRAM	DRONEAI PRODUCT
AI + 5G on the drone	EdgeAI5G Lite (small drones) · EdgeAI5G (larger drones, UGVs)
5G link only	Telem5G , for any MAVLink drone
Server, dashboard, mission control	DroneAI C2 , cloud or on-prem
Ground station and RC	Your existing pilot GCS and 2.4 GHz radio
Building a new drone?	CubeAI5G and Cube5G , page 12

BENEFIT · THE RIGHT KIT FOR EACH DRONE

Upgrade kits for existing drones

All three are wired as shown on page 3 and connect to DroneAI C2.



EdgeAI5G Lite

AI + 5G · LIGHTWEIGHT

- Industrial NPU; passive or small-fan cooling
- Under 200 g; under 10 W
- 20–30 FPS on 1080p, tiled for small targets
- Under 10% flight-time impact
- Field-tested up to 45 °C

Best for: small and FPV drones

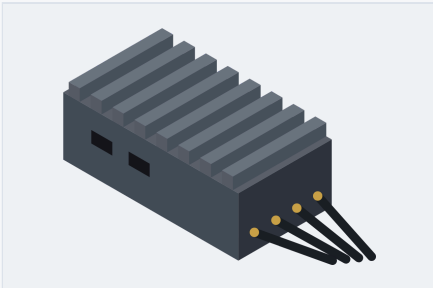


EdgeAI5G

AI + 5G · HIGH PERFORMANCE

- AI GPU for heavier models and tracking
- 20–30 FPS on 1080p video
- NVMe on-board storage
- Multi-LiDAR navigation on UGVs
- 12 V vehicle power on UGVs

Best for: larger drones and UGVs



Telem5G

5G LINK · NO AI

- Control and live video over 5G/4G
- Command round trip 100–300 ms
- Video glass-to-glass 200–500 ms
- Link back in under 5 s after a drop
- Telem5G Duo: two modems

Best for: BVLOS control of any MAVLink drone

Common to all three kits

- Non-Chinese, NDAA-compliant 5G modem
- 5G and 4G, with fallback to the existing RC link
- 5G n78 (3.3–3.8 GHz), separate from 2.4/5.8 GHz RC bands
- Encrypted tunnel; outbound connections only
- Data to DroneAI cloud or your own servers
- 50–100 sorties flown on 5G; 2–5 km range

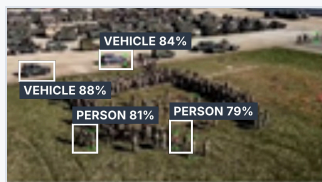
Which kit for which drone

YOUR REQUIREMENT	RECOMMENDED KIT
Small or FPV drone; AI and 5G	EdgeAI5G Lite
Larger drone or UGV; heavier AI and tracking	EdgeAI5G
Closed commercial drone	EdgeAI5G Lite or EdgeAI5G at the ground station
Long-range control and video only	Telem5G

BENEFIT · THE AI DOES THE WATCHING

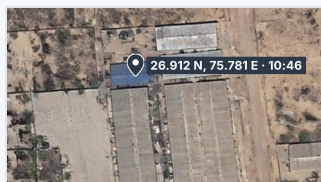
What the AI on your drone does

Eight AI jobs run on the drone itself. Everything is processed on board; only the results and the video go over the link.



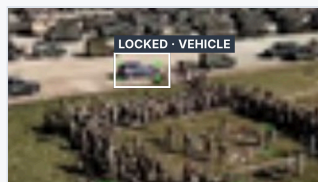
Person and object search

People, vehicles and armour, in day and thermal video



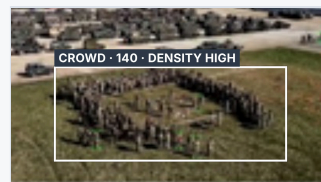
Geo-tag every target

Lat/long, time and confidence for each detection



Target lock and follow

One tap to lock; the drone keeps the target centred



Crowd density and count

Live headcount and density over an area



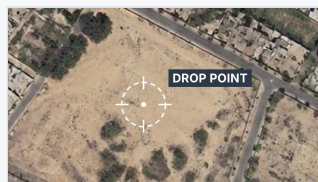
Traffic count

Vehicles detected and counted per minute



Fire and smoke

Spotted early, from the air



Precision drop

AI computes the release point for payload drops



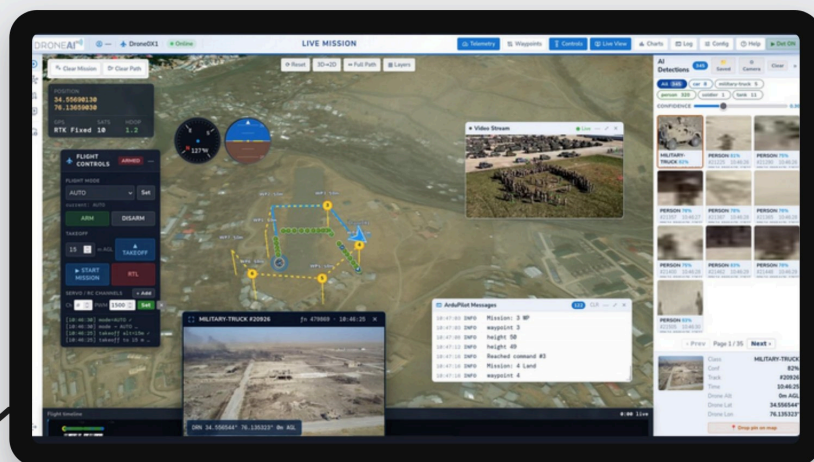
Your own classes

Bunkers, camps, new threats, via DroneAI Studio



RC controller
existing pilot radio

USB / Wi-Fi



Pilot dashboard on a tablet · live video, AI detections, map and flight controls

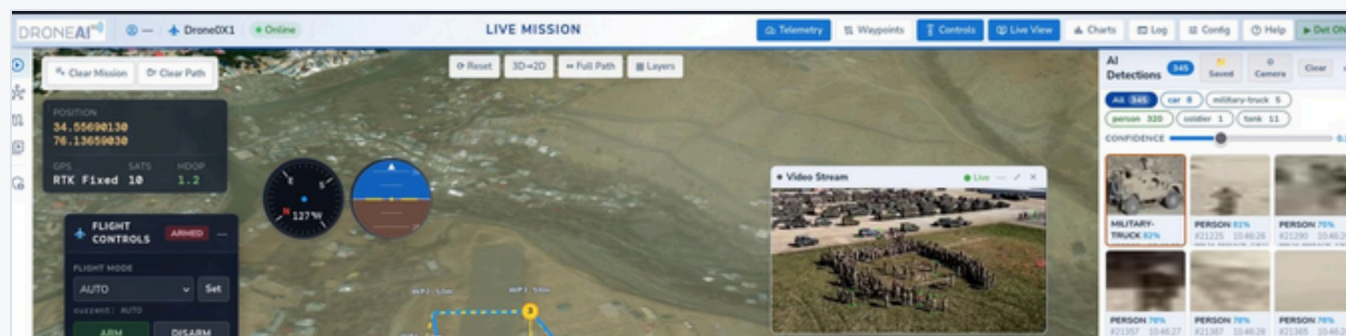
The pilot sees it too: the pilot dashboard runs on a tablet connected to the RC controller, with live video, AI detections, the map and flight controls. The commander sees the same on C2 over 5G.

BENEFIT · THE DRONE DOES THE LOOKING

From pixels to a geo-tagged alert, on board

Detection, recognition and identification run on the drone itself. Only the result has to travel: class, confidence, time and location, with video when the link allows.

1 Capture EO and thermal video from the camera already on the drone.	2 Detect Every frame, tiled so that small, distant targets are found.	3 Recognise Class and confidence for each target, tracked across frames.	4 Geo-tag Position from drone GPS, altitude and camera angle.	5 Alert To the pilot tablet and DroneAI C2 in seconds.
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Live mission screen: every detection listed with class, confidence, track ID and position.

Built for the field

Small targets Persons and vehicles only a few pixels wide, found by tiled inference.	Day and night Runs on EO and thermal (IR) cameras.	Works without a link Detection continues on board; results are sent when the link returns.
Low bandwidth When video cannot pass, detections still go through as small data packets.	Track and follow Each target keeps an ID, so the drone can lock on and follow.	Your own classes New classes are added with DroneAI Studio (page 9).

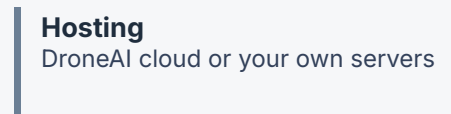
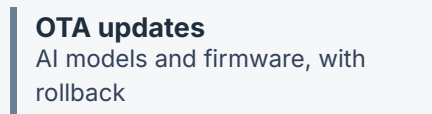
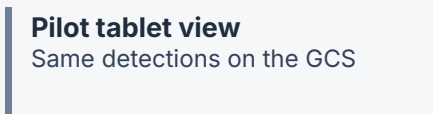
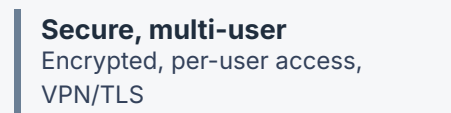
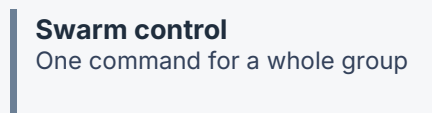
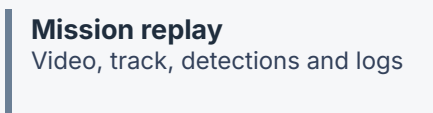
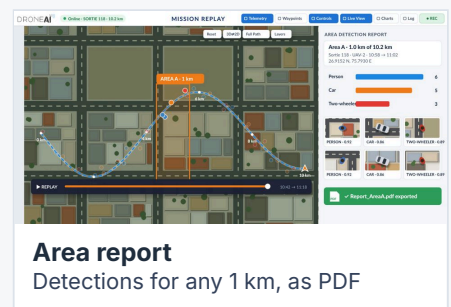
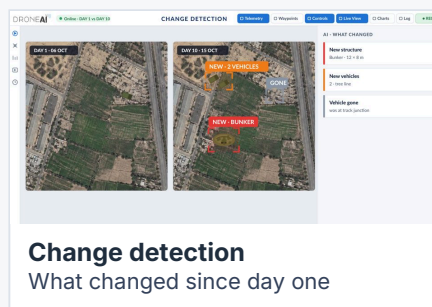
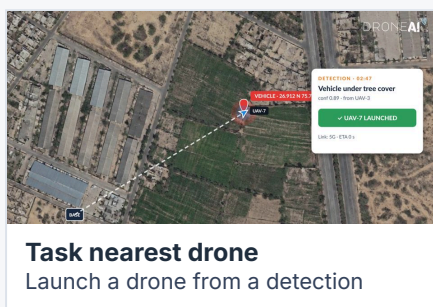
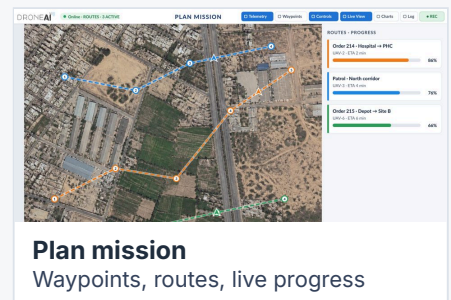
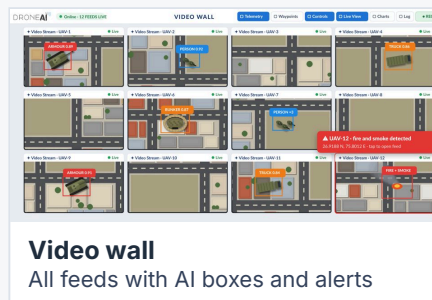
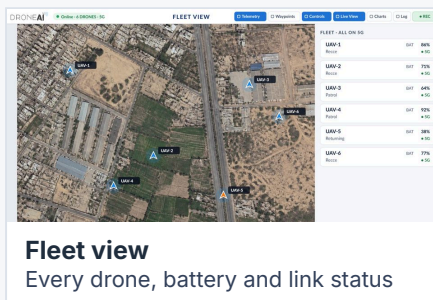
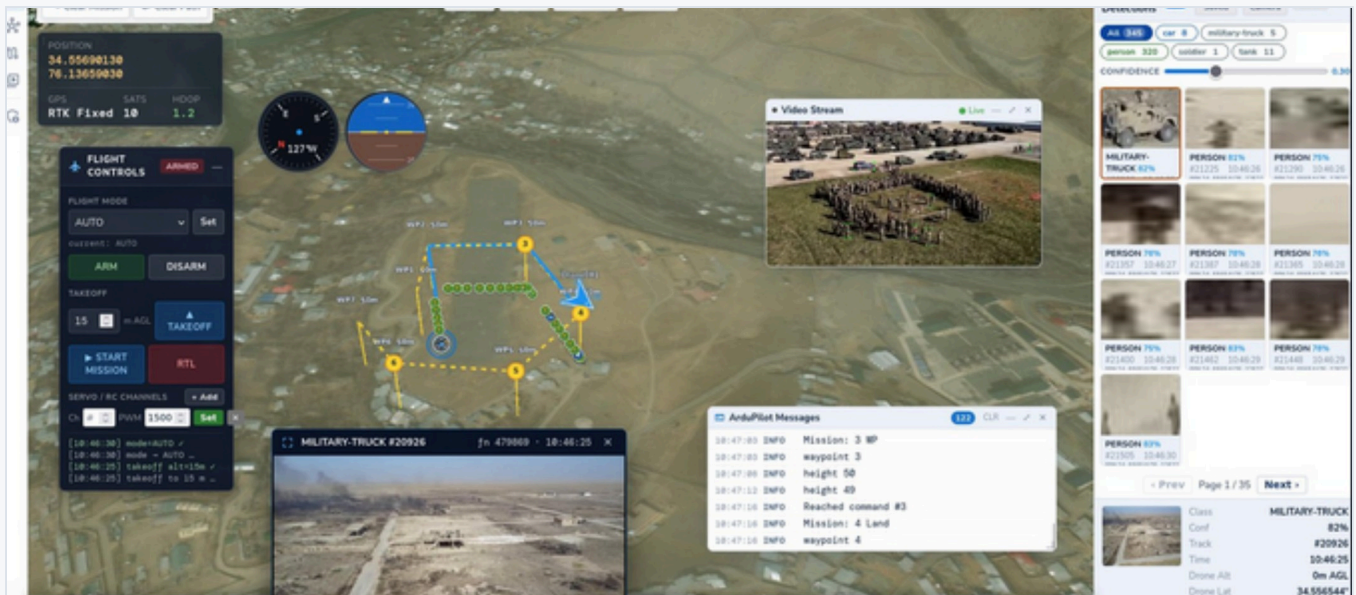
Typical classes

Person	Vehicle	Truck	Armoured vehicle	Two-wheeler	Boat	Drone	Fire
Smoke	Crowd						

BENEFIT · ONE COMMON OPERATING PICTURE

DroneAI C2

One COP for every drone and rover you fly, whatever the make. Fly, watch, find and act from one browser screen.



BENEFIT · FROM ALERT TO ACTION

From alert to action, on one screen

DroneAI C2 puts the pilot, the commander and headquarters on the same picture, so a detection becomes a decision in seconds.

1 Alert A geo-tagged detection arrives on the map.	2 Verify Live video and track, one click away.	3 Task Send the nearest drone to the spot.	4 Share Grid and video to the response team.	5 Review Replay the sortie; export the area report.
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DRONEAI^{5G}
Online · SORTIE 118 · 10.2 km

MISSION REPLAY

☐ Telemetry
☐ Waypoints
☐ Controls
☐ Live View
☐ Charts
☐ Log
 REC

FLIGHT SUMMARY

Distance	10.2 km
Duration	36 min
Max altitude	120 m
Battery used	62 %
5G link uptime	100 %
Video recorded	36 min

Mission replay: flight path, events and summary for every sortie.

Who sees what

Pilot Tablet on the RC: live video, AI boxes, map and flight controls.	Commander Every drone and alert of the unit, video wall and tasking.	Headquarters Picture across units, with replay and reports.
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Deployment and security

- Hosted on DroneAI cloud or on your own servers
- Encrypted video, telemetry and detections
- Per-user access and roles; VPN / TLS
- MAVLink drones (ArduPilot, PX4) and RTSP cameras
- Rovers and boats on the same map
- Full logs for after-action review

BENEFIT · NEW THREAT, NEW MODEL, IN DAYS

DroneAI Studio: your own AI, on your premises

Every sortie makes your models better. Footage, labels and training stay on your own GPU servers, and improved models go back to the fleet over the air.



Four stages

1 Base model

Labelled EO and IR data from missions and exercises, trained on a GPU cluster.

2 Edge deploy

Optimised for the onboard GPU: real-time, low power.

3 Every sortie

Detections, tracks and frames logged for review.

4 Improve

Re-annotate, retrain, verify; push to every drone, with rollback.

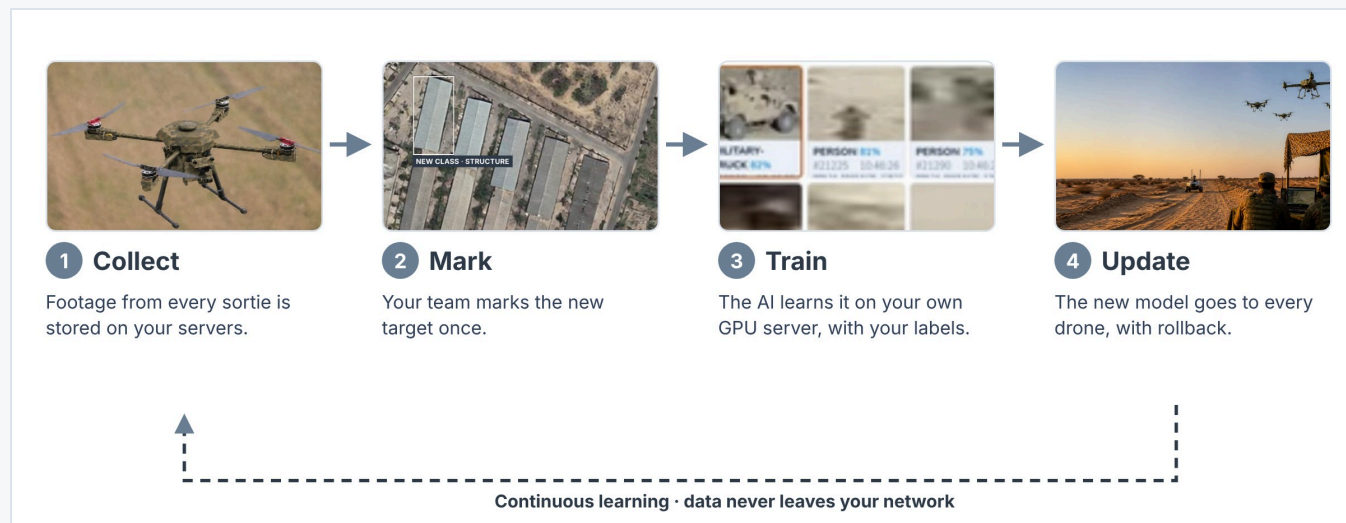
What we deliver

- On-prem GPU training server, set up in your network
- Training and retraining framework
- Custom models for your targets, field-validated
- Training for your team, annual support and updates

BENEFIT · EVERY SORTIE MAKES THE AI BETTER

A new threat today, a new model in days

Footage from every sortie is stored on your servers. Your team marks a new target once, the model is retrained on your GPU server, and the update goes to every drone.



What you can teach it

New vehicle types Vehicles that the standard model does not know.	Camouflaged structures Bunkers, camps and hides, from your own imagery.	Local boats and craft Boats typical of your creeks and coastline.
New drone types Small drones seen in your sector.	Small targets at range Persons and objects that appear only a few pixels wide.	Thermal signatures Night-time patterns from your own IR footage.

Your data stays with you

Footage, labels and models stay on your own network. Nothing is sent to DroneAI unless you choose to.

BENEFIT · ONE PLATFORM, AIR AND GROUND

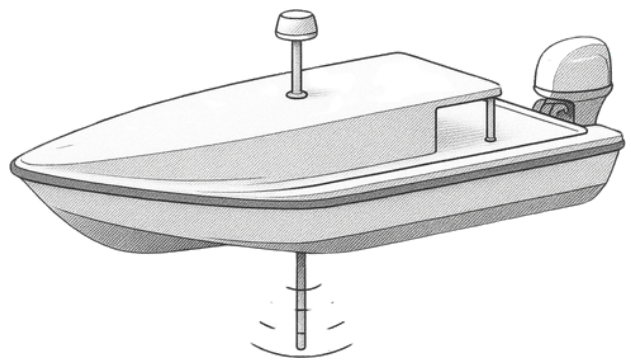
Rovers and boats

The same onboard AI and DroneAI C2 also run on ground robots (over 5G) and unmanned boats (over their own radio link).



Autonomous rover · UGV

- Live 3D map from LiDAR and depth cameras
- Click-to-goal navigation with collision avoidance
- Thermal camera with saved detections
- Change detection between scans
- EdgeAI5G: multi-LiDAR self-navigation, 12 V power
- Video, maps and thermal over 5G



Unmanned boats · USV

- ArduPilot on a Cube flight controller
- AI companion computer on board
- Controlled over its own radio link
- Watched from the same DroneAI C2

Also in service

DroneAI 5G telemetry and C2 run dumper trucks on a private 5G network.

BENEFIT · FASTER TO FIELD FOR MANUFACTURERS

Building a new drone, rover or boat

For manufacturers and integrators. These units include the flight controller, so they go into new platforms rather than upgrades.



FLIGHT CONTROL + EDGE AI + 5G

CubeAI5G

One unit with flight controller, AI processor and 5G modem.

- Cube autopilot running ArduPilot
- On-board AI processor and DroneAI EdgeAI OS
- 5G modem for public or private networks
- Secure boot and signed firmware updates
- Connects directly to DroneAI C2



CUBE FLIGHT CONTROLLER + 5G LINK

Cube5G

Telem5G combined with a Cube flight controller.

- Automatic switch to 5G when the 2.4 GHz Herelink link drops
- Remote Mission Planner over a secure SSH tunnel
- Live RTSP video over 5G, RGB and thermal
- Encrypted telemetry over DroneAI UTM and VPN
- Optional satellite backup when both links drop

In development · GPS-denied navigation

Visual and terrain matching keeps the drone on its route when GPS is jammed, spoofed or lost. For upgrade kits and new builds.

In development · single-board unit

Flight controller, GPU AI and 5G on one board, sized for small, FPV and interceptor drones.

DRONEAI^{5G}

AI for drones and rovers

EDGE AI · 5G · C2 · DRONEAI STUDIO

TALK TO US

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SCAN TO SAVE CONTACT

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