



Codec Networks

Coding Threats. Decoding Solutions.

INDUSTRY BROCHURE · DRONES, ROBOTICS & AUTONOMOUS SYSTEMS

Secure Every Flight. Protect Every Fleet.

Firmware, communications, control platform and cloud security, with authorised navigation resilience testing, for drone makers and component suppliers, drone operators and service providers, robotics and warehouse automation firms and fleet management software providers.

Firmware Security

Link & RF Testing

Fleet Cloud & APIs

Navigation Resilience

Robotics & OT

24/7 SOC

THE CHALLENGE

When drones and robots are hacked, the incident moves in the real world.

India had 30,450 registered drones by February 2025 and installed a record 9,120 industrial robots in 2024. In December 2025 the government confirmed GPS spoofing near Delhi airport and interference reports from six more airports, while the US restricted new foreign-made drone models on security grounds.

What keeps leadership teams awake

- Tampered firmware and unsigned updates
- Hijacked command and telemetry links
- GNSS interference on delivery routes
- Fleet and cloud consoles open to takeover
- Aerial imagery and survey data exposed
- Robot controllers reachable by anyone



30,450

Drones registered on Digital Sky (Feb 2025)

9,120

Industrial robots installed in India in 2024 (IFR)

₹120 crore

PLI scheme for drones and drone components

6 hours

To report cyber incidents to CERT-In

The rulebook has changed

Instrument	What it means for you
Drone Rules 2021 and Digital Sky (2021–2024)	Drone registration and UINs, remote pilot certificates, airspace zones and permissions through DGCA's Digital Sky platform
Certification Scheme for UAS (2022)	Type certificates issued by DGCA on the recommendation of QCI-approved certification bodies
CERT-In Directions and audit guidelines (2022, 2025)	6-hour incident reporting, 180-day logs in India, risk-based independent audits including OT
DPDP Act and EU Cyber Resilience Act (2023–2027)	Safeguards for personal data in imagery and apps; secure design and vulnerability handling for EU sales

One partner from firmware to fleet cloud

Built around our primary proposition for the sector: **firmware, communications, control platform and cloud security, with authorised navigation resilience testing.**

Firmware & Device Security

- Flight and robot controller firmware review
- Secure boot and update signing checks
- Hardware debug port and interface tests
- Component and SDK provenance reviews

Links & Communications

- Command, telemetry and video link tests
- Pairing, Bluetooth and Wi-Fi reviews
- Encryption and authentication checks
- LTE and satellite link configuration

Control Platform & Cloud

- Ground control app and laptop testing
- Fleet cloud and console reviews
- Mission and partner API testing
- OTA pipeline and key management

Navigation Resilience

- Authorised testing in controlled settings
- Coordinated with customer and permissions
- Sensor cross-check and fail-safe review
- Interference reporting readiness

Robotics & OT Security

- Robot cell and AMR fleet assessments
- ROS and controller exposure reviews
- IEC 62443 zones and conduits
- Vendor remote access reviews

24/7 SOC & Response

- Fleet cloud and telemetry monitoring
- Remote access and admin alerts
- 6-hour CERT-In reporting support
- Drone and robot incident forensics

Who we serve: Drone manufacturers and component makers · survey, inspection, agriculture and delivery operators · robotics and warehouse automation firms · autonomous inspection and delivery businesses · drone traffic and fleet management software providers.

Packaged for how drone and robotics firms buy

Eleven Codec Networks bundles apply directly to drone makers, drone operators, robotics firms and fleet software providers:

B1

Cyber Assessment & VAPT Assurance

B2

Application, API & DevSecOps Security

B3

Cloud, Infrastructure & Zero Trust

B4

Regulatory Cyber Audit & Compliance

B5

GRC, ISO, SOC 2 & PCI DSS Maturity

B6

Data Privacy & DPDPA Program

B7

Managed SOC, MDR & Threat Monitoring

B8

Forensics, Incident Response & Malware RCA

B9

Third-Party & Supply-Chain Risk

B10

Cyber Simulation, Awareness & Tabletop

B11

Emerging Tech, AI & Web3 Security

Foundation

Drone start-ups, operators and RPTOs

- Drone and ground app test
- Fleet cloud quick review
- Imagery data protection check
- IR retainer

Assurance

Drone makers and fleet software firms

- Firmware and update security
- Fleet API and cloud VAPT
- CERT-In empanelled audit
- 24x7 managed SOC

Continuous Resilience

Large OEMs, robotics and delivery fleets

- Red team of fleet and links
- Authorised navigation testing
- IEC 62443 and ISO 27001
- Product security programme

Mapped to your obligations

Requirement	How we help	Bundle
Register drones and keep UIN and pilot records (Drone Rules 2021)	Record and platform integrity review	B4, B5
Type certificate on QCI-scheme recommendation (CSUAS 2022)	Firmware and product testing	B1, B2
Incidents to CERT-In in six hours; 180-day logs (CERT-In)	SOC, IR retainer, reporting support	B7, B8
Risk-based independent audits incl. OT (CERT-In guidelines 2025)	CERT-In empanelled audit	B4
Safeguards and breach intimation for personal data (DPDP Act)	DPDPA programme for imagery	B6
Secure design and vulnerability handling (EU CRA, for EU sales)	Product security programme	B2, B11
Trusted components where buyers require them (tender terms)	Supply chain assessment	B9

Why drone and robotics businesses choose Codec Networks

CERT-In empanelled

Independent audits that buyers, partners and CERT-In guidelines expect.

Device to cloud

Firmware, radio links, ground apps, fleet cloud and APIs in one scope.

Responsible testing

Navigation resilience tested only with authorisation and permissions.

Certified and accountable

ISO 9001:2015, ISO/IEC 27001:2022 and ISO/IEC 20000-1:2018 certified.

Full stack, one partner

Testing, audit, SOC and forensics connected from finding to closure.

Certified experts

CEH, OSCP, CISA, ISO 27001 LA/LI and CHFI professionals.

How we engage

Discover & scope

Controller firmware and update signing, radio links, ground control apps, fleet cloud and APIs, navigation fail-safes, robot cells, AMR fleets and vendor access, imagery and flight data, suppliers and the obligations that apply to you.

Assess & test

Threat-led testing and regulatory audits executed by certified specialists.

Report in business terms

Findings, risk ratings and a compliance gap matrix for the Board and regulators.

Remediate

Practical, prioritised fixes with technology and compliance teams.

Validate & prove

Retesting and an evidence tracker for auditors, regulators and partners.

Monitor & improve

Managed SOC, recurring testing and quarterly governance reviews.

What you receive: executive summary for the Board or its committee · technical findings with evidence and CVSS ratings · compliance gap matrix · prioritised remediation roadmap · retest reports · audit evidence tracker · SOC dashboards and MTTD/MTTR metrics.



START WITH A SCOPING SESSION

Let's make your next release, mission and fleet update a non-event.

Tell us your drones or robots, firmware, links, ground apps, fleet cloud, data and obligations. We will propose a practical testing, audit and monitoring plan.

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Codec Networks

Coding Threats. Decoding Solutions.

Secure Today. Innovate Tomorrow. Regulatory references reflect public instruments as of October 2026; applicability depends on each entity's licence, category and activities. Packages are proposed groupings of Codec Networks bundles, finalised through scoping. Services support risk reduction and assurance and do not guarantee prevention of all incidents or regulatory compliance. Sources: Ministry of Civil Aviation reply in the Rajya Sabha (March 2025), International Federation of Robotics World Robotics 2025, PIB and Ministry of Civil Aviation (2021), CERT-In Directions (2022). Confirm obligations against the official instruments.