CANUCK AVIATION

Unmanned systems, payloads and flight electronics · a Red Patch Technologies Inc. company

CAPABILITY STATEMENT

18 November 2026

CanuckAviation designs, fabricates and sustains unmanned aircraft and the electronics inside them, in Ontario. We run our own PCB line, write our own firmware, and hand over the design files, build record, test log and documentation with every delivery. Canadian-owned, with no foreign parent and no vendor cloud in the loop.

CORE COMPETENCIES

Unmanned aircraft
Complete UAS: airframe, propulsion, power and payload integration on open autopilots. AG-100 agricultural UAV: first aircraft built, now quoting.

Flight electronics
Schematic, layout, fabrication and assembly on our own PCB line in Ontario. Board revisions in days.

Telemetry & RF
GNSS/VHF tracking hardware, antenna feed and matching-network layout, low-power radio for long field deployments.

Payloads & sensors
Optical ranging, GNSS/RTK and IMU integration, environmental and RF sensing, delivered with error budgets and calibration data.

Firmware & autopilot
ArduPilot configuration, tuning and scripting; SITL test campaigns; bare-metal and RTOS firmware (nRF52, ESP32 class).

Sustainment
We hold the design files: spares, repairs and revisions from the same line that built the unit. Obsolete boards redrawn and refabricated.

DIFFERENTIATORS

- Fabrication in-house — PCB imaging, etching, solder mask and reflow in Ontario; no overseas fab in the iteration loop.
- No vendor cloud — telemetry, imagery and logs stay with the operator; nothing phones home.
- Open autopilot — ArduPilot, published parameter files, documented wiring. Your technicians can maintain what we deliver.
- Direct to engineers — the people who design and build the hardware answer the phone. No sales layer.
- Specs we can defend — estimates are labelled as estimates; unmeasured figures are not published.

COMPANY DATA

Legal name	Red Patch Technologies Inc.
Operating brand	CanuckAviation
Ownership	Canadian-controlled private corporation
Location	Toronto, Ontario, Canada
NAICS	336411 Aircraft manufacturing · 541330 Engineering services
NCAGE	L12C1
Business number	734212871
Contact	chris@canuckaviation.ca
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CURRENT PROGRAMMES

CODE	TYPE	STATUS	NOTES
AG-100	Agricultural UAV	Now quoting	Coaxial octocopter; 100 L spray / 150 L spread, RTK, ArduPilot. Supplied as a complete field package.
CA-FC1	Flight controller	In development	In-house ArduPilot flight controller; design, fabrication and assembly in Ontario.
CA-FC2	Flight controller	In development	Baddeck: Pixhawk Autopilot Bus module, triple IMUs; ArduPilot / PX4.
CA-LS1	Fan-beam lidar	Prototype	360-degree triangulating scanner for indoor robotics; ~9,600 pts/s design target.
CA-WT1	Avian tracking tag	In development	GNSS logging plus VHF beacon for wildlife research; Canadian-built.

COMPLIANCE & READINESS — STATED PLAINLY

Canadian ownership	READY	CCPC, Ontario. No foreign parent or control.
Supplier registration	READY	NCAGE L12C1. Registered to bid on federal procurement.
Commercial liability insurance	READY	In force; certificate on request, limits to contract requirement.
Personnel security clearance	ON REQUEST	None held today; sponsorable through a contracting authority.
Controlled Goods Program	NOT YET	Not registered. Would register before award; no controlled data accepted before then.
Cyber certification (CPCSC)	NOT YET	Not certified; tracking the programme.

Industrial benefit. Work placed with CanuckAviation is Canadian engineering, Canadian fabrication and Canadian-held IP, performed by a Canadian SME — the ingredients primes need for Industrial and Technological Benefits and Value Proposition commitments. Confirmation of credit eligibility rests with your ITB authority.