Job description

Manufacturing Technician

Job Type: Full-Time
Location: On-site, Calgary, AB

About Us

AERIUM Analytics Inc. is a Remotely Piloted Aircraft System (RPAS) technology company based in Calgary, Alberta. We develop and deploy cutting-edge drone-based technologies led by our ground-breaking RoBird® flapping-wing drone and best-in-class real-time detection and reporting solutions. Our unique integrated model encompasses Smart Wildlife Management, and AI/ML-based geospatial intelligence and specialized safety solutions.

Job Description

AERIUM Analytics Inc. is currently seeking to fill the following role:

We are hiring a Manufacturing Technician to join our small, fast-moving hardware engineering team. In this hands-on role, you will assemble, repair, iterate, and refine the electromechanical systems of our bio-inspired ornithopter — a flapping-wing drone that mimics the peregrine falcon for wildlife deterrence tasks. Working shoulder-to-shoulder with pilots and R&D, you will be a key part of our rapid design-feedback cycles and continuous improvement culture.

What You'll Do

<u>Assembly and Integration</u>

- Build ornithopter airframes, gearboxes, wing and tail assemblies, and control linkages to spec.
- Install and wire servos/actuators, ESCs, flight controllers, GPS modules, radios, and related components.
- Fabricate and fit lightweight structures (carbon, composites, 3D-printed parts, foam cores), ensuring proper tolerances and balance (CG).

<u>Parts Sourcing & Inventory Management</u>

- Source parts from suppliers in a timely manner to fulfill required production volumes.
- Manage inventory of parts and drones.

<u>Wiring, Soldering, and Firmware</u>

- Crimp, route, and secure harnesses; perform clean, reliable solder joints; apply ESD-safe practices.

- Flash, configure, and validate flight-controller firmware (e.g., ArduPilot/PX4) and actuator endpoints.

Test, Calibrate, and Iterate

- Run bench tests for wing stroke symmetry, actuator load, resonance/vibration, and range-of-motion.
- Support ground and flight tests with pilots; log issues, collect telemetry, and execute quick-turn fixes.
- Participate in structured design-of-experiments to improve endurance, stability, noise signature, and field usability.
- Lead the workflow of the in-house maintenance portal.

Cross-Functional Collaboration

- Work daily with pilots and R&D to translate flight feedback into actionable build changes and part revisions.
- Assist with inspection schedules, wear tracking (hinges, bearings, tendons), and spare parts management.
- Pilot drones to support iterative feedback and testing.

Quality and Process

- Maintain build records, serials, and test logs; follow revision control and traceability.
- Propose and implement jigs, fixtures, and 5S practices to improve repeatability and cycle time.
- Contribute to DFM/DFR feedback for new revisions and supplier parts.

Knowledge, Skills & Abilities

- Valid driver's license and comfortable operating company trucks.
- 2+ years in electromechanical assembly, robotics, UAVs/RC aircraft, or aerospace prototyping.
- Strong mechanical aptitude with fine mechanisms: linkages, hinges, bearings, pull-pull cables/tendons, and servo setup.
- Experience with CAM/CNC machining.
- Proficiency with hand tools and precision instruments (torque drivers, calipers, multimeter); solid soldering and crimping skills.
- Ability to read assembly drawings, wiring diagrams, and BOMs; comfort with quick design updates.
- Proven track record working iteratively in small teams: build–test–learn cycles, rapid rework, constructive feedback.

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- Clear communicator and team player who collaborates closely with pilots, engineers, and maintenance staff.
- This position is subject to pre-employment drug and alcohol testing.

Bonus Skills

- Experience with bio-inspired or flapping-wing systems, mechanisms, or lightweight composite fabrication.
- Familiarity with ArduPilot/PX4, actuator tuning, and telemetry tools (e.g., MAVLink/GCS).
- Knowledge of LiPo safety, power budgeting, EMI/ESD practices, and vibration mitigation.
- Basic CAD or 3D printing skills for brackets, fixtures, and quick mods.
- Background in agriculture tech, field operations, or ruggedization of hardware.

Physical and Work Environment

- Frequent bench work with small parts; standing/sitting for extended periods; ability to lift up to 25–30 lbs.
- Shop and lab environment with outdoor field test support; standard PPE and ESD controls apply.
- Field trial support alongside pilots — early starts, variable sites, and quick pit-stop maintenance.

Success Indicators (First 90–180 Days)

- Consistently produces flight-ready builds that pass bench and field checks with minimal rework.
- Implements at least two process improvements (fixture, jig, or SOP) that cut assembly time or defects.
- Demonstrates fast iteration: integrates pilot/R&D feedback into the next build within the same sprint.
- Contributes to a robust maintenance checklist and parts-wear tracking for wings/actuators.

Compensation and Benefits

- Competitive salary for startup stage.

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- Health/dental/vision, paid time off, professional development.
- Field per diem and flexible scheduling during flight campaigns.

How to Apply

If interested, please send a short note describing a tricky mechanism you built, your resume/portfolio, and any relevant RC/UAV projects or videos. We thank all applicants for their interest; however, only those selected for further consideration will be contacted.

AERIUM Analytics is an equal opportunity employer and considers all qualified applicants equally without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran status, or disability status.

Other considerations: Pre-employment drug and alcohol testing may be required. Background check may be required.

Link: https://ca.indeed.com/job/manufacturing-technician-c3937cc23deeb758

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