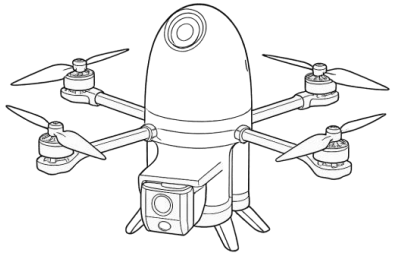

FRD1203

FIRST RESPONSE DRONE

Empowering frontline heroes, our drone is the fastest and provides eyes in the cloud to support critical decisions when every second is vital.

Contact us

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Industry Applications

The FRD1203 is a next-generation drone engineered for rapid response in critical operations. With blazing speeds up to 300 km/h, it delivers unmatched speed and situational awareness when every second matters.

Applicable Market Sector

Versatile Industry Applications for Tactical Drone Deployment

- Emergency Response
- Search & Rescue
- Law Enforcement & Border Patrol
- Disaster Relief
- Military Reconnaissance
- Ambulance Support
- Coastal Surveillance
- Utility Inspection
- Environmental Monitoring

First on site, giving eyes in the sky before boots hit the ground.

Mission Statement

Our mission is to build advanced drone systems that support first responders with:

- Real-time situational awareness
- Rapid deployment
- Resilient, high-speed performance

Features:

⚡ Ultra-Rapid Deployment

Launch-ready in under 60 seconds
Compact design for Base Station with charger
Automated pre-flight checks for fast mission start

🛰️ Real-Time Situational Awareness

Live HD video feed to command centers and mobile units
Thermal imaging (optional) for smoke, fire, and victim detection
Continuous GPS location tracking shared with first responder teams

🧭 Dynamic Mission Control

Real-time in-flight route updates with dynamic waypoints
Manual override + assisted flight modes for rapid decision-making
Auto-return-to-home for loss-of-signal or mission completion

🕒 Extended Operational Window

Up to 45 minutes of flight time per charge
High-speed traversal up to 300 km/h for rapid area coverage
Hover-stable surveillance mode for focused monitoring

🧠 Smart Response Integration

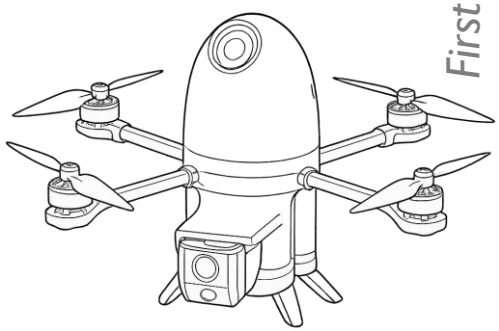
Real-time coordination with firefighting, EMS, and police units
Secure LTE-based communication for remote control and video uplink
Map overlays + telemetry logs for post-mission analysis

🌍 Situational Adaptability

Urban & rural mission support (wildfires, structural fires, search & rescue)
Deployable in low-visibility or hazardous conditions
Configurable geofencing & no-fly zones for safety compliance

📦 Modular Use Cases

Search & Rescue Missions
Fire Perimeter Mapping
Hazardous Zone Surveillance
Traffic Incident Response
Disaster Recovery Support



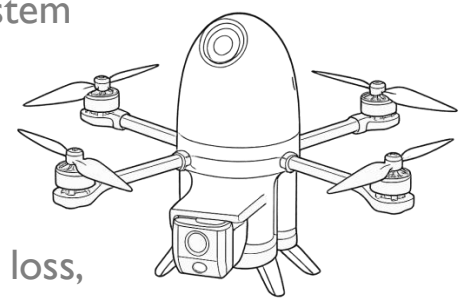
First on site, giving eyes in the sky before boots hit the ground.

ROI Statement

By deploying the FRD1203 drone system, cities can reduce emergency response times, optimize resource allocation, and lower operational costs. This leads to lives saved, greater protection of property and enhanced public safety

Impact-Driven (Cardiac/Fire Response)

"Every minute gained in emergency response can improve survival rates by up to 24 percent. The FRD1203 system helps responders recover that vital time.“



Municipal Efficiency Focus

"Deploying the FRD1203 can reduce emergency response times by several minutes, helping minimize loss, improve outcomes, and make better use of public safety budgets.“

Cost-to-Society Framing

"Every minute of delayed response increases the risk to both lives and resources. The FRD1203 accelerates decision-making and helps reduce overall emergency response costs.“

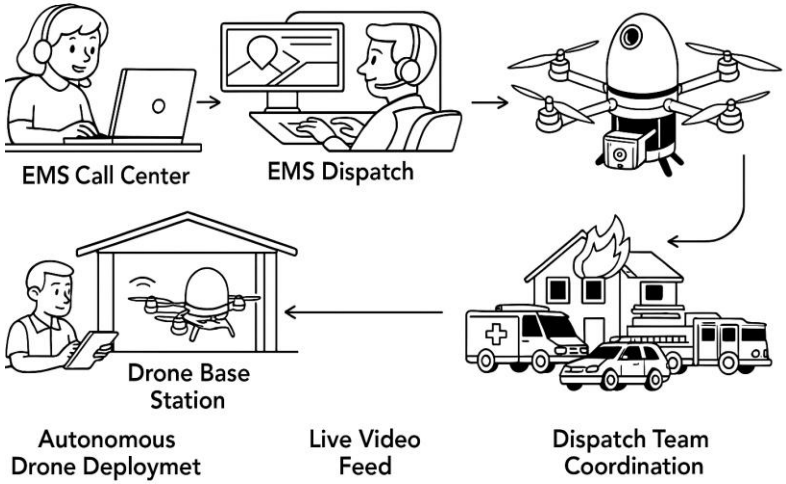
Economic Justification

"A single drone flight, costing less than $10, can prevent damages and injuries valued in the tens of thousands. The FRD1203 quickly proves its value by saving lives and reducing liability.“

Public Safety Framing

“FRD1203 delivers instant eyes on the scene, buying crucial time to make life-saving decisions before first responders even arrive.”

Process Flow



EMS Call Center

An operator receives an emergency call using a headset and computer, initiating the emergency response process.

EMS Dispatch

The dispatcher evaluates the location and urgency of the incident, then sends a command to launch the drone.

Drone Base Station

The FRD1203 drone is housed in a secure base station and launches automatically upon receiving dispatcher instructions.

Autonomous Drone Deployment

The drone autonomously flies to the Point of Interest (POI), capturing and transmitting live video en route.

Live Video Feed

Real-time video is streamed back to EMS Dispatch, providing immediate situational awareness for decision-making.

Dispatch Team Coordination

EMS Dispatch uses the drone footage to coordinate rapid deployment of:

- Fire Services
- Ambulances
- Police Units

Project Milestone

The FRD1203 drone project is advancing rapidly toward its mission to transform emergency response. With mechanical design complete and hardware integration underway, the focus is now on AI development and real-world validation. Each milestone brings us closer to a fully autonomous aerial system that empowers EMS teams with faster, smarter, and safer situational awareness because every second matters.

Milestone	Description	Status	Target Completion
Mechanical Design	Drone chassis finalized, aerodynamic form, integrated battery, vibration dampening	✅ Completed	✅ Done (2025)
Hardware Integration	PCB (FC + ESC), DJI O4 camera integration, sensor wiring, power rail validation	✅ Completed	✅ Done (2025)
AI Backend Development	LTE live feed, object detection model, EMS dashboard integration	🔄 In Progress	Oct 2025
Testing & Validation	Functional tests, BVLOS prep, EMI/thermal trials	⏳ Planned	Nov–Dec 2025
Sample A Build	Internal prototype for mechanical and flight testing	⏳ Planned	Jan 2026
Sample B Field Trial	Fieldable prototype with integrated AI backend, LTE uplink	⏳ Planned	Mar 2026
Feature Lock & QA	Final freeze of firmware/software, compliance validation	⏳ Planned	May 2026
Pilot Deployments	Deployed to select EMS/Fire units for real-world scenarios and feedback collection	⏳ Planned	July 2026
Soft Feature Launch	Release of AI-powered dashboard, real-time alerts, telemetry logs	⏳ Planned	Sept 2026
Mass Production Ramp-Up	1,000-unit production begins (final BOM + QA)	⏳ Planned	Q4 2026
Full Market Launch	Press, municipal briefings, training sessions, and full fleet onboarding	⏳ Planned	Jan–Mar 2027
V2.0 Feature Expansion	Upgraded AI model (severity detection, predictive analysis), base station enhancements	⏳ Forecasted	Q2 2027
North America Scale-Up	Scaling to broader EMS/fire/police units across Canada + select U.S. municipalities	⏳ Forecasted	Q3–Q4 2027

CAPEX Estimation

A complete capital expenditure breakdown for the FRD1203 drone system, covering design, hardware, AI software, testing, certification, and full-scale production of 1,000 units in Canada—tailored for emergency response and municipal deployment.

Estimated **production cost per drone** (all-in): ~**$2,500 CAD**

📊 CAPEX Estimation (1,000 Units Production)

Category	Description	Estimated Cost (CAD)	% of Total
Mechanical & Structural Design	Frame, tooling, integrated battery housing, vibration dampening	$168,480	5.4%
Hardware Development (LTE)	Custom LTE module design, firmware, antenna layout, RF certification	$106,080	3.4%
Battery & Power System	21700 Li-ion pack, BMS, thermal testing, safety validation	$106,080	3.4%
AI Backend & Software Platform	Object detection model, live stream backend, EMS dashboard integration	$340,080	10.9%
Drone Base Station (10 units)	Auto-charging platform, communication uplink, weatherproof enclosures	$124,800	4%
Testing & Certification	Field testing, Transport Canada UAV certification, BVLOS compliance	$190,320	6.1%
Pilot Production (3 units)	Low-volume prototype builds for functional and field testing	$168,480	5.4%
Full Production (1,000 units)	Off-the-shelf FC, ESC, DJI camera, batteries, LTE module, QA & assembly	$1,076,400	34.5%
Training & Support	EMS dispatcher training, operator manuals, onboarding materials	$84,240	2.7%
Marketing & Public Outreach	Demo kits, videos, municipal briefings, exhibition material	$84,240	2.7%
Contingency	Supplier variability, BOM margin, logistics risk	$680,160	21.5%

Total Estimated CAPEX : $3,129,360 CAD

OPEX Analysis

This operational expenditure summary outlines the estimated annual costs to support a 1,000-unit FRD1203 drone fleet. It includes recurring expenses such as LTE connectivity, battery replacement, routine maintenance, cloud-based software services, technical support, and compliance-related insurance and licensing.

Per-Unit OPEX(Annual)Per Drone:
$1,250CAD

📊 OPEX Cost Estimation

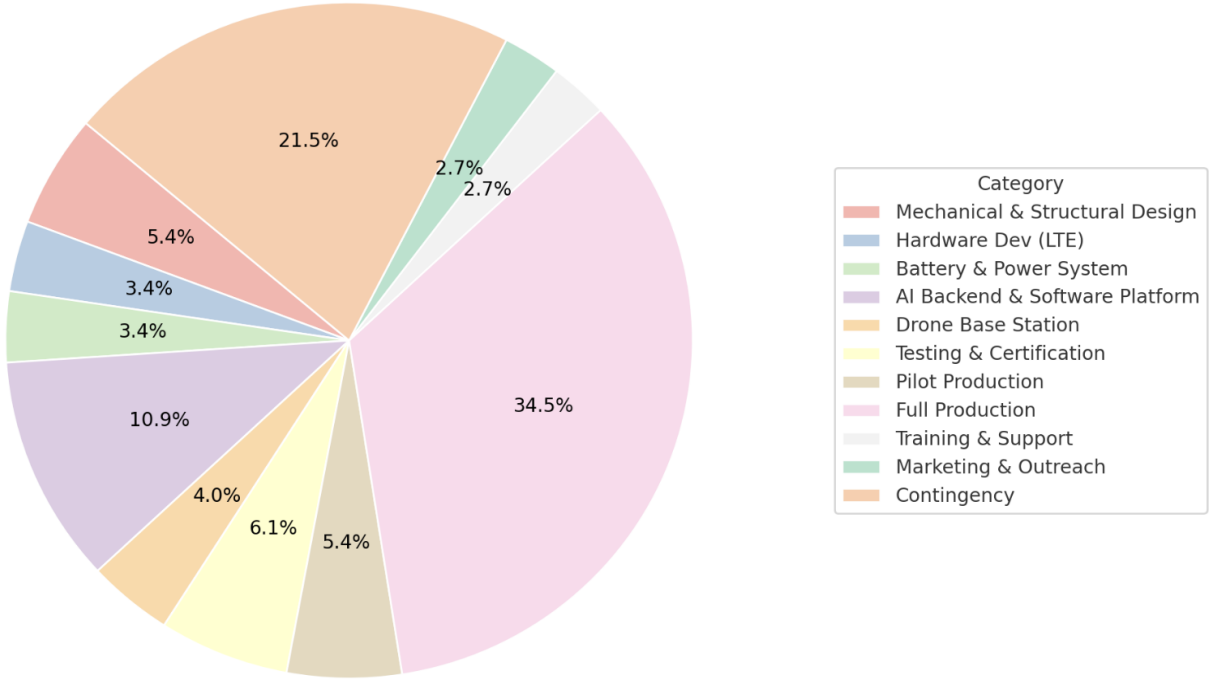
Category	Description	Annual Estimate (CAD)	% of Total
LTE Data Plans	$18.25/month/device × 12 months × 1,000 drones	$218,750	17.5%
Battery Replacement Fund	Accrual over 3 years (~33% of fleet per year)	$146,250	11.7%
Maintenance & Repair	Routine servicing, parts, propellers, minor repairs	$260,000	20.8%
Software & Cloud Backend	AI processing, dashboard, storage, OTA updates	$208,750	16.7%
Personnel & Support	Tech support, field service team, helpdesk, operator refreshers	$156,250	12.5%
Insurance & Licensing	UAV liability coverage, Transport Canada renewals	$260,000	20.8%

📄 **Total Estimated : $1,250,000 CAD**

Summary CAPEX Distribution

This chart illustrates the capital expenditure distribution for the FRD1203 Emergency Response Drone System, based on a Canadian market deployment with 1,000 production units.

Much of the investment (34.5%) is allocated to manufacturing, including both pilot and full-scale production. Design, AI development, and integration account for 17%, while testing, certification, training, and marketing support the system's readiness for real-world EMS deployment. A 21.5% contingency buffer is reserved to address market fluctuations, certification delays, or unforeseen supply chain costs.



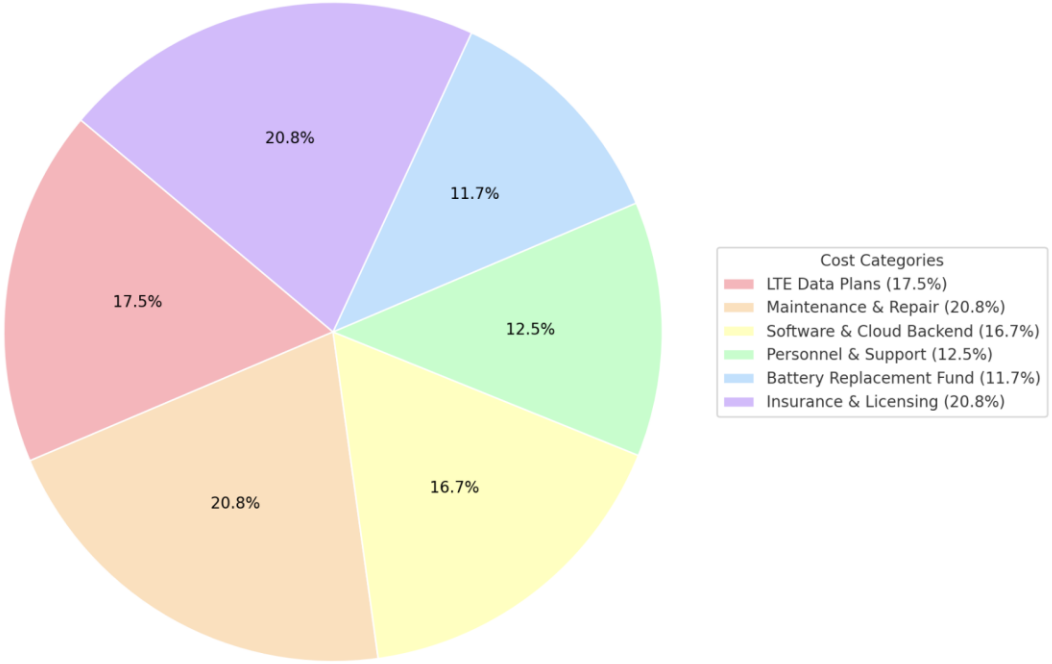
Total Estimated CAPEX : $3,120,000 CAD

System CAPEX distribution.

Production costs dominate the investment (over 34.5%)
Design & development, **testing**, and **contingency** make up the rest.
Operations (training & marketing) form a small but essential component

OPEX Summary

Operating a fleet of 1,000 FRD1203 drones across Canada is projected to cost approximately **$1.25 million CAD per year**, or **$1,250 per drone annually**. The largest expense is LTE connectivity for live video and telemetry, followed by maintenance, AI backend services, and personnel support. Battery replacements are accrued over a 3-year cycle, while insurance and regulatory compliance remain modest but essential. This cost structure supports continuous field readiness, system reliability, and scalable response operations for EMS teams.



Total Estimated OPEX $1,250,000 CAD

Annual operating expenses

LTE Data Plans (17.5%)
The largest ongoing cost, covering real-time video streaming and telemetry at $18.5/month per drone.

Maintenance & Repair (20.8%)
Includes routine servicing, propeller replacement, cleaning, calibration, and minor hardware swaps.

Software & Cloud Backend (16.7%)
Supports AI-based threat detection, EMS dispatch integration, data logging, and OTA firmware updates.

Personnel & Support (12.5%)
Covers technician support, training refreshers for EMS teams, and remote troubleshooting.

Battery Replacement Fund (11.7%)
Accrual for replacing 21700 Li-ion batteries **every 3 years** (≈ one-third of fleet per year).

Insurance & Licensing (20.8%)
Annual UAV liability insurance and Transport Canada compliance maintenance.

Ending Statement

The FRD1203 drone platform is built to support emergency response teams with speed, accuracy, and smart functionality. It combines reliable, off-the-shelf components with custom engineering to enable efficient operations at scale. Designed with production readiness and cost-effectiveness in mind, the FRD1203 is positioned to deliver immediate value in critical field applications.

Contact us

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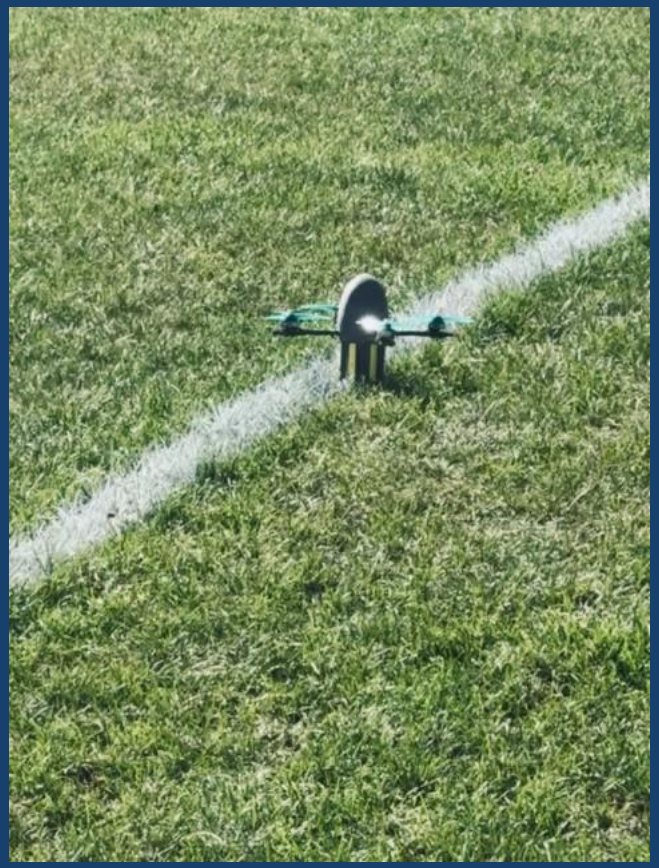
Teviottechnology.com

INVEST IN YOUR FUTURE

Thank You



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