

ORO RESCUE TRACKER

- Offline operation
- Satellite-based tracking
- Wearable integration



Brief Background of the Product

What is the product all about?

Oro Rescue Tracker is an innovative satellite-based emergency response application designed to overcome delayed rescue operations in low-connectivity and rural environments. Developed by Rajosnier Technologies Inc., the product integrates four core technologies: satellite-based GIS tracking, offline functionality, motion-sensor algorithms for accident detection, and wearable integration (smartphones/smartwatches with ECG, heart-rate monitoring, and GPS).

The system enables users to register in advance, providing critical personal and medical information that can be accessed by emergency responders. In emergency situations, users can activate an SOS button, or the system can automatically detect accidents through motion sensors or health monitoring. The application then transmits the user's precise location and vital health data at one-minute intervals to the nearest emergency unit, even in areas with weak or no cellular signals.

The use and significance of the product

Oro Rescue Tracker addresses a critical gap in emergency response capabilities, particularly in rural and remote areas where traditional communication methods often fail. The significance of the product lies in its potential to dramatically reduce response times during disasters and everyday accidents, potentially saving lives in situations where every minute counts.

For emergency response organizations, the product provides reliable tracking in weak signal areas, automated accident detection, and vital health information before arrival at the scene. This enables better preparation and more effective emergency response, potentially improving survival rates and outcomes.

For individual users in remote areas, adventure enthusiasts, outdoor workers, and elderly or high-risk individuals, Oro Rescue Tracker offers peace of mind and a reliable lifeline in emergency situations. The product's ability to function without cellular service and automatically detect emergencies addresses key pain points in current emergency communication systems, making it a significant advancement in public safety technology.

Validation Canvas

	START	PIVOT 1	PIVOT 2	PIVOT 3	PIVOT 4
RISKIEST ASSUMPTION	Emergency response delays in rural and remote areas with poor connectivity are a significant problem that users are willing to adopt and pay for a technological solution to address.	Satellite-based tracking technology can reliably function in challenging environments (dense forests, mountainous terrain) where traditional cellular networks fail.	Emergency service organizations and individual users will find sufficient value in the solution to justify the subscription costs and adoption effort.	Integration with existing emergency response systems and wearable devices can be achieved without significant technical barriers.	Government agencies and healthcare providers will support and potentially subsidize the solution for widespread adoption in rural communities.
CUSTOMER SEGMENT	<p>Primary: Emergency response organizations (Oro Rescue, ambulance services, firefighters)</p> <p>Secondary: Individual users in remote/rural areas, adventure enthusiasts, and outdoor workers</p>	<p>Primary: Emergency response organizations</p> <p>Secondary: Rural healthcare providers who need reliable emergency communication</p>	<p>Primary: Emergency response organizations and rural healthcare providers</p> <p>Secondary: Elderly and high-risk individuals in remote areas</p>	<p>Primary: Government disaster management agencies</p> <p>Secondary: Transportation and logistics companies operating in remote areas</p>	<p>Primary: Healthcare system integration partners</p> <p>Secondary: Wearable device manufacturers for strategic partnerships</p>
CUSTOMER NEED	<p>Reliable emergency communication in areas with weak/no cellular signals</p> <p>Faster response times to emergency situations</p> <p>Accurate location</p>	<p>Consistent satellite signal penetration in challenging environments</p> <p>Reliable tracking in areas with dense forest coverage or difficult terrain</p>	<p>Cost-effective emergency communication solution with clear ROI</p> <p>Integration with existing emergency response systems and protocols</p>	<p>Automated detection of emergencies without user intervention</p> <p>Health monitoring integration for high-risk individuals</p>	<p>Comprehensive data analytics for emergency response optimization</p> <p>White-label solutions for healthcare providers</p>

	tracking in remote areas				
PROTOTYPE TO VALIDATE WITH	<p>Basic satellite tracking demo with SOS button functionality</p> <p>Simple mobile app interface showing location tracking in low-connectivity areas</p>	<p>Enhanced satellite tracking demo tested specifically in dense forest and mountainous environments</p> <p>Signal strength and reliability testing apparatus</p>	<p>Pricing model presentation with subscription tiers and ROI analysis</p> <p>Integration prototype with existing emergency response systems</p>	<p>Wearable device integration demo with automated accident detection</p> <p>Health monitoring prototype with ECG and heart rate monitoring</p>	<p>Data analytics dashboard for emergency response optimization</p> <p>White-label solution prototype for healthcare providers</p>
METHOD	<p>1. Conduct 10 interviews with emergency service personnel</p> <p>2. Survey 30 residents of rural areas about emergency response experiences</p> <p>3. Field test basic satellite tracking in 5 different rural environments</p> <p>4. Present concept to 15 potential organizational customers</p>	<p>1. Conduct field tests in dense forest environments with varying canopy coverage</p> <p>2. Test signal reliability in mountainous terrain with limited line-of-sight</p> <p>3. Measure signal strength and data transmission success rates</p>	<p>1. Present tiered pricing options to organizational customers with ROI analysis</p> <p>2. Conduct integration workshops with emergency response system operators</p> <p>3. Collect feedback on subscription model and feature prioritization</p>	<p>1. Test wearable device integration with volunteer participants</p> <p>2. Simulate accident scenarios to validate automated detection</p> <p>3. Collect health monitoring data accuracy compared to medical-grade device</p>	<p>1. Present data analytics capabilities to emergency response organizations</p> <p>2. Conduct white-label solution workshops with healthcare providers</p> <p>3. Collect feedback on customization requirements</p>
MINIMAL SUCCESS CRITERION	<p>1. 7+ emergency services confirm problem significance</p> <p>2. 70% of rural residents report concerns about emergency</p>	<p>1. Successful signal transmission in 80% of forest test scenarios</p> <p>2. 75% reliability in mountainous terrain tests</p> <p>3. Data</p>	<p>1. 40% of organizational customers express willingness to pay at proposed price points</p> <p>2. 3+ emergency response</p>	<p>1. 85% successful detection rate for simulated accidents</p> <p>2. Health monitoring data accuracy within 10% of medical-grade</p>	<p>1. 50% of emergency organizations express interest in data analytics features</p> <p>2. 3+ healthcare providers express interest</p>

	response 3. Successful tracking in 4+ out of 5 test environments 4. 40% of potential customers express willingness to pay	transmission success rate of at least 90%	systems successfully integrate with prototype 3. 60% of feedback indicates feature prioritization aligns with development roadmap	devices 3. 70% of participants rate wearable integration as "easy to use"	in white-label solutions 3. 70% of customization requirements can be accommodated in product roadmap
RESULT	PERSEVERE 1. 9/10 emergency services confirmed problem significance 2. 82% of rural residents reported concerns 3. Successful tracking in 4/5 test environments 4. 35% of organizational customers expressed willingness to pay	PERSEVERE 1. 65% success rate in forest environments - below target 2. 80% reliability in mountainous terrain - above target 3. 92% data transmission success rate - above target Technical enhancements needed for dense forest coverage	PERSEVERE 1. 35% of organizational customers expressed willingness to pay 2. 4 emergency response systems successfully integrated 3. 75% of feedback aligned with development roadmap Individual users showed price sensitivity (only 25% willing to pay)	IN PROGRESS 1. 90% successful detection rate for simulated accidents 2. Health monitoring data accuracy within 8% of medical devices 3. 65% of participants rated integration as "easy to use" Exploring partnerships with wearable manufacturers	NOT STARTED

Feedback

Emergency Response Organizations

- **Oro Rescue Task Force**

“This solution addresses a critical gap in our emergency response capabilities. Receiving vital signs and exact location data before arrival would dramatically improve our preparation and response.”

Benefit: Greater situational awareness leads to faster, more targeted interventions.

- **Rural Ambulance Service Coordinator**

“Offline functionality is a game-changer for rural operations. However, we need consistent performance in densely forested areas before full implementation.”

Benefit: Ensures coverage even where cellular networks fail, reducing area-blind spots.

- **Technology Officer, Regional Fire Department**

“Integration with our existing dispatch systems is essential. The demo showed promising compatibility, but we’ll need comprehensive testing across our entire network.”

Benefit: Seamless data flow prevents duplicate entry and speeds up dispatch.

- **Ambulance Field Lead**

“Narrow, unmarked roads make precise patient location hard to find. A tracking tool would save us 2–3 minutes per call in tight areas.”

Benefit: Reduces search time, directly cutting response intervals in complex terrain.

- **Bureau of Fire Protection Officer**

“Early-stage fires without visible smoke plumes can go undetected for 10–15 minutes. A tracker with smoke-particle sensors could cut that in half.”

Benefit: Faster fire detection in concealed or interior fires, saving property and lives.

Individual Users

- **Outdoor Enthusiast, 34**

“As someone who hikes in remote areas, automatic accident detection gives me peace of mind. I’d just like a more discreet wearable form factor.”

Benefit: Immediate alerts without bulky gear, keeping adventurers safer without sacrificing comfort.

- **Rural Resident, 45**

“We’ve experienced delayed emergency responses firsthand. This solution addresses a real need, but I’d prefer a one-time purchase over a monthly subscription.”

Benefit: Affordable ownership model increases adoption in lower-income areas.

- **Family Caregiver, 52**

“The health-monitoring integration would be invaluable for my elderly father who lives alone. With government subsidies, this could become an essential service.”

Benefit: Continuous remote monitoring protects vulnerable elders and eases caregiver burden.

- **Llanita Family (Alubijid Province)**

“People who’ve had a heart attack may collapse alone without anyone knowing. Automated ECG alerts could save lives by notifying responders immediately.”

Benefit: Immediate notification doubles survival odds by ensuring faster intervention.

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