

## QUOTATION

Quotation No: AINSR012536

To,

Sr. DSC RPF

ECO RAILWAY,

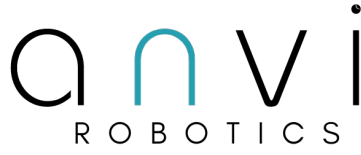
WALTAIR

### SUB: Quotation for Surveillance Robot & AI

Sl. No	Item Description	Quantity	Unit Price (INR)	Total Price (INR)
1	Surveillance Robot with Hardware Integration & Autonomous Navigation	1 Unit	₹ 15,00,000	₹ 15,00,000
2	Advanced AI-enabled software suite	1 License	₹ 10,00,000	₹ 10,00,000
3	Standard Software License	1 License	₹ 5,00,000	₹ 5,00,000
	Subtotal			₹ 30,00,000
	GST @ 18%			₹ 5,40,000
	Total Payable Amount (Incl. GST)			₹ 35,40,000

#### Terms & Conditions:

1. Delivery Timeline: 45Days from the Date of Order
2. Payment Terms: 50% on order and 50% before delivery
3. Warranty & Support: 1 Year warranty & 3 Years Guarantee
4. Taxes: 18% GST included in the final amount



## **I. Surveillance Robot with Hardware Integration & Autonomous Navigation**

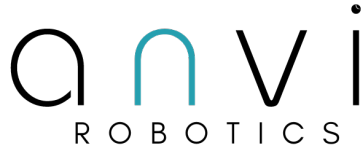
ANVI Robotics is known for developing advanced robotic systems designed for various applications, including surveillance, monitoring, and security.

### **1. Surveillance and Monitoring**

- a) 360-Degree Camera System: Equipped with high-resolution cameras for panoramic surveillance, ensuring no blind spots.
- b) Night Vision and Thermal Imaging: Capable of operating in low-light or no-light conditions using infrared and thermal imaging technology.
- c) Real-Time Video Streaming: Live video feed transmitted to a control center or mobile devices for remote monitoring.
- d) AI-Powered Object Detection: Automatically detects and classifies objects, people, and vehicles in the environment.
- e) Environmental Sensors: Includes sensors for temperature, humidity, and other environmental factors for comprehensive monitoring.

### **2. Face Recognition**

- a) Advanced Facial Recognition Algorithms: Utilizes AI and machine learning to identify individuals in real-time, even in crowded environments.



- b) Database Integration: Matches faces against a pre-loaded database of individuals (e.g., suspects, employees, or VIPs).

## **II. Advanced AI-enabled software suite**

### **1. Face Recognition\*\***

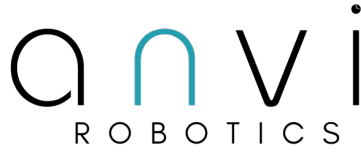
- a) Disguise and Mask Detection: Capable of recognizing individuals even when wearing masks, glasses, or other disguises.
- b) Real-Time Alerts: Sends instant notifications when a recognized face matches a person of interest.

### **2. Crowd Control**

- a) Crowd Density Analysis: Monitors and analyzes crowd size and movement to detect potential overcrowding or unsafe conditions.
- b) Automated Alerts: Issues warnings or alerts to authorities if crowd behavior becomes unruly or dangerous.
- c) Dynamic Path Planning: Navigates through crowds autonomously while avoiding obstacles.

### **3. Target Lock for Track and Follow**

- a) Object Tracking: Locks onto a specific target (person or vehicle) and follows it autonomously.



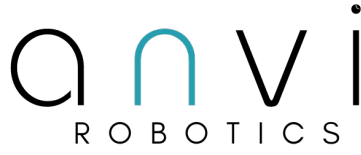
- b) GPS and Geofencing: Tracks targets within a defined geographical area and alerts if the target moves outside the designated zone.
- c) Multi-Target Tracking: Capable of tracking multiple targets simultaneously.
- d) Stealth Mode: Operates discreetly to avoid detection while tracking.

#### **4. Incident Response**

- a) Rapid Deployment: Can be quickly deployed to the scene of an incident for real-time assessment.
- b) Two-Way Communication: Features a microphone and speaker for communication between responders and individuals at the scene.
- c) Emergency Alerts: Automatically notifies authorities and provides live footage during emergencies.

#### **5. Patrolling and Alert**

- a) Autonomous Navigation: Uses LiDAR, GPS, and SLAM (Simultaneous Localization and Mapping) for autonomous patrolling in predefined or dynamic routes.
- b) Obstacle Avoidance: Detects and navigates around obstacles in real-time.
- c) Intrusion Detection: Identifies unauthorized entry or suspicious activity and sends alerts.



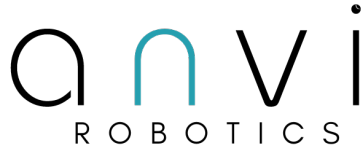
- d) Scheduled Patrols: Can be programmed to patrol specific areas at designated times.

## 6. Training and Awareness

- a) Simulation Mode: Provides an environment for training operators in various scenarios.
- b) User-Friendly Interface: Intuitive controls and dashboards for easy operation and monitoring.
- c) Customizable Scenarios: Allows users to create and simulate specific scenarios for training purposes.
- d) Data Analytics: Collects and analyzes data from patrols and incidents to improve future operations.

## 7. Sound Source Localization

- a) Microphone Array: Equipped with multiple high-sensitivity microphones arranged in a specific pattern to capture sound from all directions.
- b) AI-Based Sound Analysis: Uses machine learning algorithms to identify and classify different types of sounds (e.g., gunshots, screams, breaking glass, animal noises).
- c) Directional Accuracy: Pinpoints the exact location of a sound source with high precision, even in noisy environments.



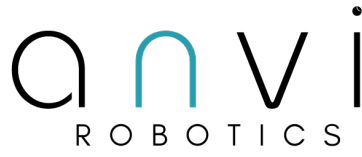
- d) Real-Time Alerts: Sends immediate notifications when specific sounds (e.g., gunfire or distress calls) are detected.
- e) Noise Filtering: Filters out background noise to focus on relevant sounds.
- f) Integration with Visual Tracking: Combines sound localization with camera systems to visually confirm and track the source of the sound.

## 8. Reptile Detection

- 1. AI-Powered Image Recognition: Utilizes deep learning models trained to identify various reptile species based on visual characteristics.
- 2. Motion Detection: Detects movement patterns typical of reptiles, such as slithering or crawling.
- 3. Alert System: Notifies operators or nearby personnel when a reptile is detected, especially in areas where they pose a danger.
- 4. Data Logging: Records data on detected reptiles, including species, location, and time, for research or conservation purposes.

## III. Additional Features

- 1. Durability and Weather Resistance: Built to operate in harsh environments, including rain, snow, and extreme temperatures.
- 2. Long Battery Life: Equipped with high-capacity batteries for extended operation, often with solar charging options.



3. Modular Design: Allows for easy upgrades and customization based on mission requirements.

#### **IV. Standard Software License**

1. This includes the dashboard, web & Tab based, which will help the users to track, monitor, and operate the robot from anywhere.
2. Internal Server setup is also included in this.