

See Clearly. Act Quickly. Save Lives.

AI-Enabled Computer Vision

Overview

In emergency situations, every second counts—and so does every pixel. ProHawk AI delivers real-time video clarity, pixel-by-pixel, in the most challenging conditions, helping emergency response teams detect, assess, and respond faster. Using ProHawk AI's patented AI-enabled computer vision restoration and NVIDIA® GPU accelerated computing with CUDA® parallel processing of every pixel, ProHawk AI transforms degraded or obstructed video feeds into clear, actionable streams.

Whether responding to natural disasters, public safety incidents, medical emergencies, or mass gatherings, ProHawk AI improves situational awareness across command centers, field units, and edge devices—without requiring costly camera replacements or infrastructure changes.

Key Challenges

Obstructed Visibility

Fog, smoke, night, glare, or poor weather obscure real-time video—delaying critical decisions.

Slow Situational Assessment

Unclear video footage makes it difficult to assess severity, locate individuals, or coordinate teams effectively.

Legacy Camera Infrastructure

Outdated or fixed cameras often cannot deliver the clarity needed for modern AI systems or human monitoring in dynamic conditions.

Communication Gaps

Field teams and command centers rely on visual inputs that are often compromised at the moment they're needed most.

Cost Constraints

Agencies often operate under tight budgets, limiting the ability to replace or upgrade existing camera systems.

Key Benefits and Outcomes

ProHawk AI transforms emergency operations by restoring critical video clarity in the harshest conditions—empowering faster, smarter, and more coordinated response. Whether deployed in command centers, mobile units, or field operations, ProHawk AI enhances visibility through smoke, fog, glare, night, and adverse weather—without requiring new infrastructure. By turning degraded video into actionable intelligence in real time, it helps emergency teams make life-saving decisions with confidence and speed.

• Accelerated Incident Detection

Enables faster identification of threats, victims, or hazards in challenging environments.

• Improved Responder Safety

Clearer video increases situational awareness, helping teams navigate high-risk zones safely.

• Seamless Command Coordination

Real-time visual clarity improves communication between field teams, drones, and command centers.

• Maximized Existing Equipment

Revives underperforming video systems, avoiding costly camera replacements or upgrades.

• Rapid Deployment & Scalability

Operates on edge devices or NVIDIA Jetson Orin platforms for immediate use in any emergency scenario.

AI-Powered Stadium Intelligence for Safer, Faster, High-Impact Events

ProHawk AI's restores degraded video streams in real-time using patented computer vision and NVIDIA GPU-accelerated computing—delivering critical visual clarity in smoke, fog, night, glare, or extreme weather. ProHawk AI boosts the accuracy of any NVIDIA DeepStream-supported model for existing cameras, enables faster incident detection, improved situational awareness, and more effective coordination between field units and command centers. Empowering first responders to act quickly, reduce risk, and save lives, it integrates with bodycams, drones, VMS, and mobile command platforms—eliminating the need for costly infrastructure upgrades.



As a GPU-accelerated solution powered by NVIDIA, ProHawk AI transforms degraded or low-quality video streams, pixel-by-pixel, into clear, actionable footage in real-time—enabling emergency teams to rapidly detect threats, locate victims, and coordinate responses under pressure. Built on the NVIDIA Metropolis Vision AI stack, it delivers as fast as 3ms latency and up to 30× faster video restoration, ensuring reliable visibility through smoke, fog, rain, glare, or night. By restoring performance to existing camera infrastructure, ProHawk AI eliminates the need for expensive upgrades or thermal imaging systems—reducing hardware costs by up to 60%. Emergency responders benefit from faster situational awareness, improved safety, and more effective field coordination—driving better outcomes when every second counts.

Use Case	Result
Disaster Response Operations	Enables real-time visibility through smoke or debris—improving search, rescue, & coordination efforts.
Public Safety Incidents	Enhances video clarity at crime scenes, public disturbances, or protests to support real-time monitoring and de-escalation.
Medical Emergencies at Scale	Supports visibility across large venues (e.g., stadiums, festivals) to quickly identify and locate medical incidents in dense crowds.
Mobile Command & UAV Operations	Processes live video feeds from drones and mobile units in the field for immediate situational analysis.
Firefighting and HazMat Response	Restores visibility through smoke, steam, or chemical plumes—enabling safe navigation and decision-making in high-risk zones.

Feature	Requirement
Compatible NVIDIA Hardware	NVIDIA Jetson Orin™ & NVIDIA RTX™ Pro – Blackwell, Ampere
Supported Input Formats	Image & Video Files, RTSP Camera Stream
Supported Operating Systems	MS Windows Server 2019/2022/2025 & Ubuntu 20.04/22.04

ProHawk AI gives emergency response teams the power to see clearly when it matters most. Accelerated by NVIDIA Jetson™ at the edge and scaling up to data center-class NVIDIA GPUs, it restores degraded video in real time and improves AI performance, enabling faster action, better decisions, and safer outcomes. From disaster response to public safety, ProHawk AI helps first responders turn uncertain visuals into decisive action—without costly infrastructure changes. In emergencies, clarity isn't optional—it's critical.

