

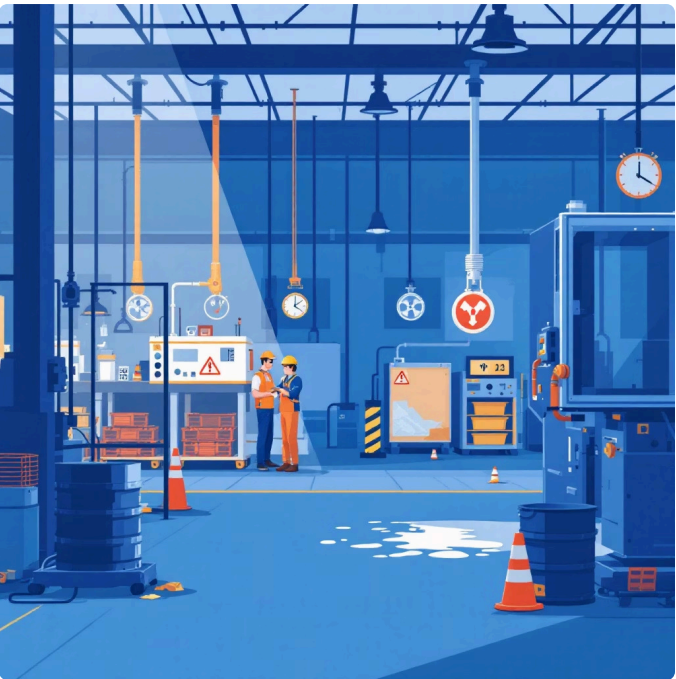
Manufacturing Facility Safety Transformation

How SiteLens® reduced workplace incidents by 40% at a large manufacturing plant



Transforming Safety Through AI Innovation

The Challenge



A Fortune 500 automotive manufacturing facility employing 3,500 workers faced critical safety challenges that demanded immediate action.

47

Monthly Incidents

Recordable safety incidents per month

73%

PPE Compliance

Inconsistent safety equipment usage

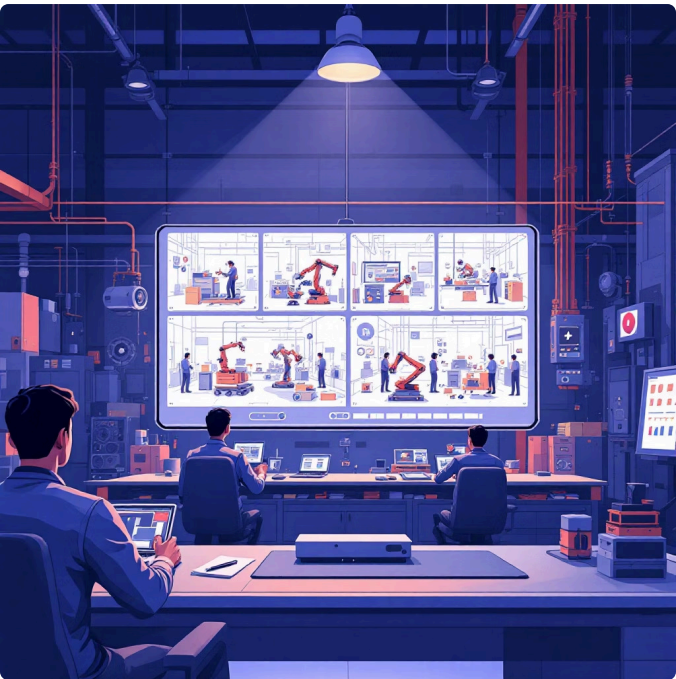
\$1.8M

Annual Cost

Direct expenses from lost-time injuries

Manual monitoring covered less than 15% of operations, creating dangerous blind spots across the 2.3 million square foot complex.

The SiteLens® Solution



RoboK deployed AI-powered monitoring across 127 strategic locations, integrating with existing CCTV infrastructure to create comprehensive 24/7 safety oversight without disrupting production workflows.



PPE Compliance Monitoring

Real-time detection of hard hats, safety glasses, boots, and high-visibility vests with instant supervisor alerts



Hazardous Zone Detection

Automated monitoring of restricted areas, lockout/tagout verification, and forklift operation zones



Near-Miss Prevention

Behavioral analysis identifying unsafe practices before incidents occur, including fatigue detection and proper equipment interaction

Implementation Deep Dive

Technology Architecture

SiteLens® seamlessly integrated into the existing facility infrastructure, upgrading 89 cameras and strategically installing 38 new units. The AI engine now processes 15.6 million safety events monthly, delivering critical real-time insights.



Edge Computing Units

On-site processing ensures minimal latency and robust data privacy.



Cloud Analytics Platform

Enables advanced behavioral modeling and comprehensive trend analysis.



Mobile Alert System

Provides instant notifications to supervisors and safety personnel on the go.



Dashboard Integration

Real-time metrics are integrated with existing safety management systems.

Deployment Strategy



Phase 1: Pilot Implementation

Months 1-2: Initial deployment in Assembly Line C, a high-risk area, for AI model training.



Phase 2: Facility Rollout

Months 3-4: Systematic expansion across all production zones with simultaneous staff training.



Phase 3: Optimization

Months 5-6: AI refinement using operational data, achieving 97.3% accuracy and reducing false positives.

