



AI-Powered Traffic and Safety Insights

Powered by award-winning computer vision and machine learning, Derq INSIGHT identifies, tracks, and predicts to help agencies identify and better understand safety issues and hotspots, manage traffic, reduce congestion, and prevent potential collisions.



Cutting-Edge AI

- Real-time processing of video sensors
- Granular, rich, and up-to-date data
- Patented computer vision, machine learning, and system design techniques
- Predicts road user intent up to two seconds before violations occur
- Identifies high-risk areas based beyond crash history
- Recommends actionable solutions for safer roadways
- Adapts to local environments

Cloud Dashboard

- User-friendly, secure interface
- Unlimited users and access anytime, anywhere
- Powerful analysis toolbox
- Real-time data and advanced analytics
- Real-time notifications and alerts
- Manage multiple intersections in one place
- No need for dedicated IT or support resources
- Instant access to historical data

Flexible and Modular

- Customize, build, and export reports for tailored insights
- APIs for 3rd party integrations
- Certified secure platform (SOC2 and ISO27001)
- Optional add-on modules for traffic detection and connected vehicles

* From FDOT APL 2024-2025 testing results.

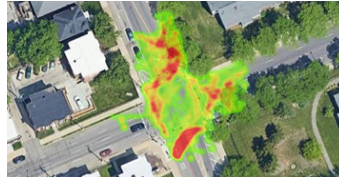
Real-Time Safety Insights

Analyze safety events and hotspots.

- Events summary
- Events statistics
- Near-miss analysis (including heatmaps and configurable severity analyses plots)
- Pedestrian compliance analysis (including heatmaps)
- Advanced filtering based on day of week, time of day, detection area, related events, severity, speed, movement type, involved parties, and more



Near-Miss Heatmaps display concentrations of near-misses. Apply filters to identify related events, trends, and involved parties.



Pedestrian Compliance Heatmaps display concentrations of illegal crossings. Apply filters to identify high-risk areas, trends, and related events.



Events Summaries show all safety events for a selected period. Click into each and apply filters to analyze further.

Safety Events

- Crash
- Near miss (vehicle-VRU)
- Near miss (vehicle-vehicle)
- Illegal crossing
- Pedestrian signal violation
- Red light violation
- Wrong way driver
- Stopped vehicle
- Illegal turning movement
- Lane compliance violation

Deployment Options:

Cloud | Hybrid | On Premises (with Cloud Dashboard)

Optional Add-on Derq SENSE Modules

Add next-gen traffic detection and connected vehicle alerts to optimize traffic flow and prevent collisions.

Next-Gen Traffic Detection

- Accurately detect, track, and predict road user trajectories in real time
- Supports multimodal detection and sensor fusion, plus unlimited zones, extended range, and customizable calls
- Compatible with common traffic controllers

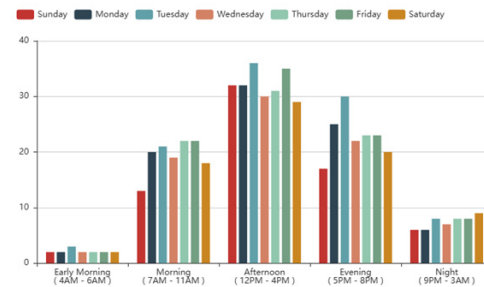
Connected Vehicle (CV)

- Real-time V2X alerts to operations centers, connected vehicles, and signage
- BSM, PSM, SDSM, TIM, RSA generator
- Pedestrian and cyclist protection applications

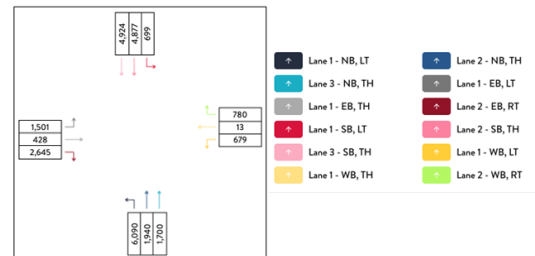
Traffic Insights and ATSPMs

Examine road user movements and trends.

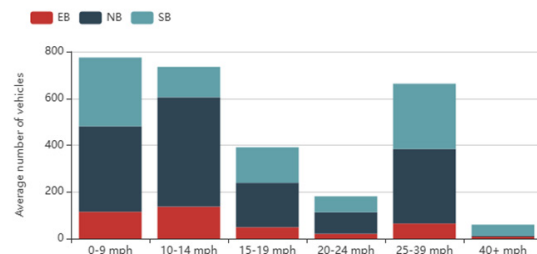
- Vehicle counts
- VRU counts
- Vehicle classification
- Peak hour analysis
- Turning movement counts
- Speed distribution
- Overspeeding vehicles
- Occupancy graph
- Density graph
- Arrivals on Red
- Vehicle Delay
- Estimated Queue Length
- Approach Volumes



Vehicle and VRU Counts track the number of vehicles and vulnerable road users. Apply filters for deeper insights.



Turning Movement Counts track vehicles making specific turns. Apply filters and compare time periods to analyze traffic flow.



Speed Distribution tracks vehicle speed by day, intersection, approach, lane, and movement. Apply filters to analyze behaviors.