

SOUTHWEST RESEARCH INSTITUTE®

Active-Vision



Number of Vehicles **6**

Weather Condition **CLEAR**

68
MPH
↓WEST



72
MPH
↓WEST

76
MPH
↑EAST

75
MPH
↑EAST



73
MPH
↓WEST



71
MPH
↑EAST



Overview

SwRI's decades of expertise in artificial intelligence utilizing machine learning techniques have enabled advances across many technical disciplines. For over 15 years, SwRI has leveraged computer vision and machine learning to support clients. SwRI has built advanced sensing algorithms supporting vehicle autonomy for military and commercial vehicles navigating on- and off-road terrain and traditional roadways.



This Humvee is being driven using SwRI-developed autonomy.

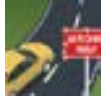



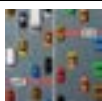
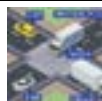
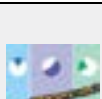
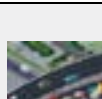

Features

Active-Vision™ is a camera-agnostic software system which provides real-time actionable insights based on traffic camera video feeds.

- Uses existing traffic camera infrastructure
- Software upgrades at no added cost
- Open API-enabled integration with ATMS and other external systems

Capabilities

Low-light conditions, camera obstruction due to weather or other environmental conditions, and lights (such as headlights) shining directly into the camera lens all have a negative impact on the ability of Active-Vision (or any other video analytics system) to perform with 100% accuracy. The following existing and near-term capabilities enable transportation agencies to be consistently aware of roadway conditions in real time.

Capability	Description	ATMS Integrations	Capability	Description	ATMS Integrations
	Wrong-Way Driver Detected when present in a configured road lane.	<ul style="list-style-type: none"> • Events (Wrong-Way Driver) • Reporting 		Collisions/Stalled Vehicle Detected when present in a configured road lane or shoulder.	<ul style="list-style-type: none"> • Events (Stalled Vehicle) • Reporting
	Traffic Speed Detected when vehicles are present.	<ul style="list-style-type: none"> • Traffic Sensors • Reporting 		Weather or Low Visibility Low-hanging fog and precipitation are detected when present.	<ul style="list-style-type: none"> • Events (Fog, Snow) • RWIS • Reporting
	Traffic Volume Detected when vehicles are present.	<ul style="list-style-type: none"> • Traffic Sensors • Reporting 		Traffic Classification Detected when vehicles are present.	<ul style="list-style-type: none"> • Traffic Sensors • Reporting
	Traffic Occupancy Detected when vehicles are present.	<ul style="list-style-type: none"> • Traffic Sensors • Reporting 		Congestion/Slow Traffic/Queue Existing speed detection capability will be enhanced to report slow traffic based on configured speed threshold.	<ul style="list-style-type: none"> • Events (Abnormal Congestion) • Reporting
	Debris Existing vehicle tracking capability will be enhanced when section of road is being avoided by vehicles, indicating road obstruction. This detection method relies on reasonable traffic flow.				<ul style="list-style-type: none"> • Events (Road Debris) • Reporting

We welcome your inquiries.
For more information, please contact:

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Designed & printed by SwRI MPS 10-0423 269477 bl