

5DT DriveVUE™ AI Enhanced Driver Evaluation System

| | | | |
|----------------------|--------------------|---|----------------------|
| ID: Vela, Ana | Occupants | 2 | ID: Mayo, Dennis |
| Mobile Device Talk | | | Mobile Device Talk |
| Mobile Device Use | ID: LP1234 | | Mobile Device Use |
| Drowsy | Exceed Speed Limit | | Drowsy |
| Seat Belt | Aggressive Driving | | Seat Belt |
| Unauthorized Objects | Aggressive Braking | | Unauthorized Objects |
| PPE Not Worn | High G Event | | PPE Not Worn |
| Eyes Off Road | | | Eyes Off Road |
| Unauthorized Actions | | | Unauthorized Actions |

Description

The 5DT DriveVUE™ AI Enhanced Driver Evaluation System (*US Patents Pending*), is an Artificial Intelligence (AI) enhanced system that uses a variety of sensors and machine learning algorithms to evaluate the performance and behaviors of drivers & operators or other persons in a vehicle cab. It detects and evaluates driver attentiveness and driver drowsiness. The system detects a wide range of road signs and traffic lights. The system also detects the following distance to other vehicles on the road. The system sends alerts to the operator and/or to a control centre.

Determinations/Detections (Inward Facing Camera)

- Mobile Phone Talking Detection
- Drowsiness Detection
- Eyes-Off-Road Detection
- Facial Recognition of Operators/Occupants
- Number of Occupants Detection
- Unauthorized Object Detection (e.g. Firearms)
- Unauthorized Actions Detection (e.g. Drinking, Smoking, Eating, Makeup Application)
- Mobile Phone Use Detection (e.g. Texting)
- Hands-Near-Face Detection
- Personal Protective Equipment (PPE) Detection
- Seat Belt Detection
- Unauthorized Occupant Detection
- Mirror Check Detection

Determinations/Detections (Outward Facing Camera)

- Road Sign Detection
- Following Distance Detection
- Traffic Lights Detection
- Lane Change Detection

Determinations/Detections (Other Sensors)

- High-G Event Detection (Typical Accident)
- Speed Limit Exceedance Detection
- Aggressive Driving and Braking Detection
- Hours of Service Logging

General System Features

- Real-Time or Off-Line Processing
- Global Positioning System (GPS)
- Operator/Occupant Image Masking
- Heat Map of Driver Eye Scan Pattern
- Multi Camera Support
- 9-Axis Inertial Measurement Unit (IMU)
- Other Fleet Management Systems Integration
- Snapshots of Events

Application Areas

- Evaluation of Truck and Car Drivers
- Evaluation of Pilots
- Fleet Driver Proficiency Management
- Observation of Self-Driving Car & Bus Occupants
- Observation of Taxi & Ride-Sharing Vehicle Drivers & Occupants
- Evaluation of Construction Machine Operators
- Supervision of Learner Drivers
- Mine, Plant or Factory Workers (PPE checking)

System Description

The 5DT DriveVUE™ system consists of a Portable Device with Outward Facing and Inward Facing Cameras. The system uses Machine Learning and AI to detect specific objects, events and behaviors and can alert the operator/s directly or send the information via an encrypted interface to a Server. Control room operators, supervisors and management can log onto the system via a Web App, to see what events have been detected, send a message to the operator/s, or get an instantaneous view of the operator/s in the case of an emergency.

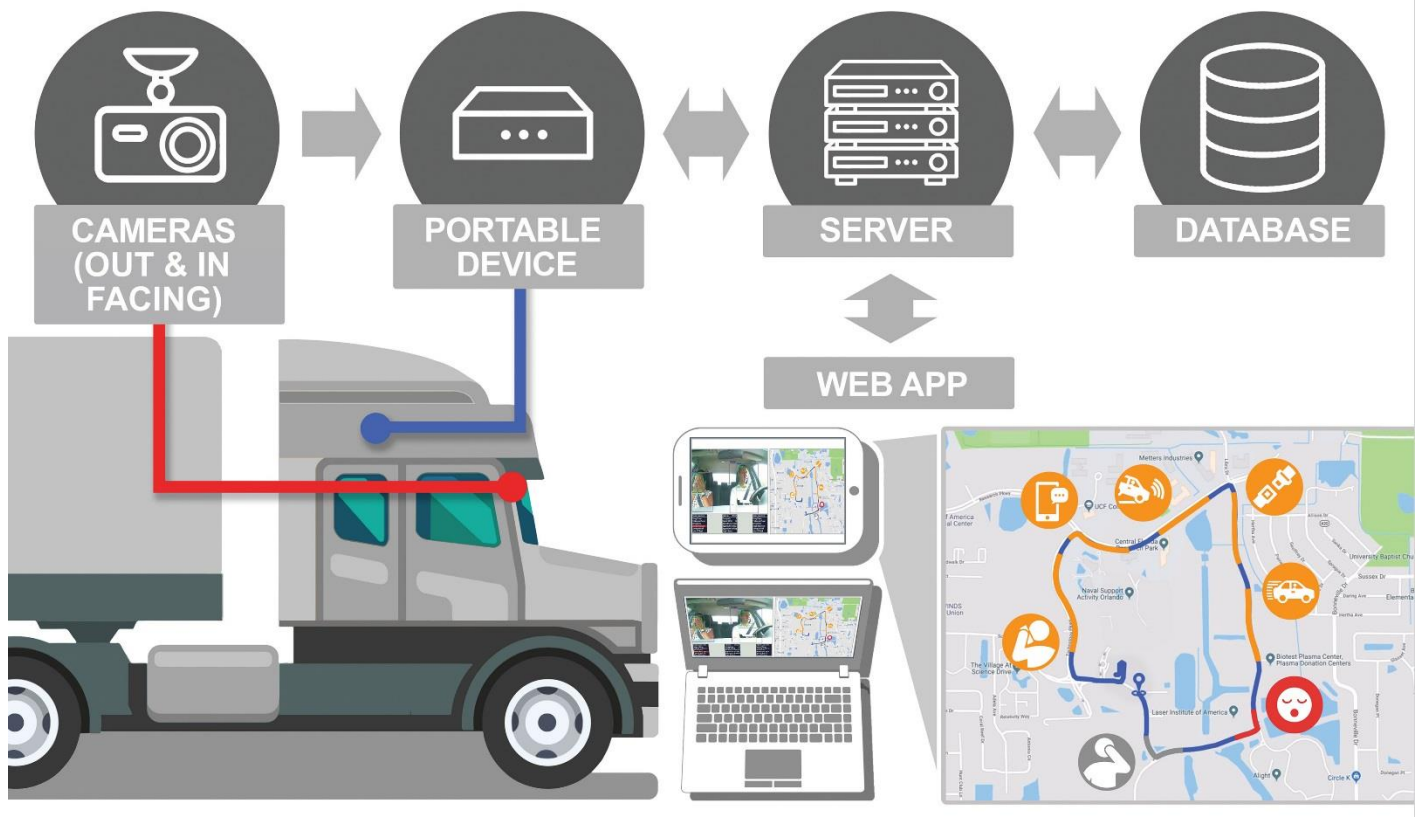
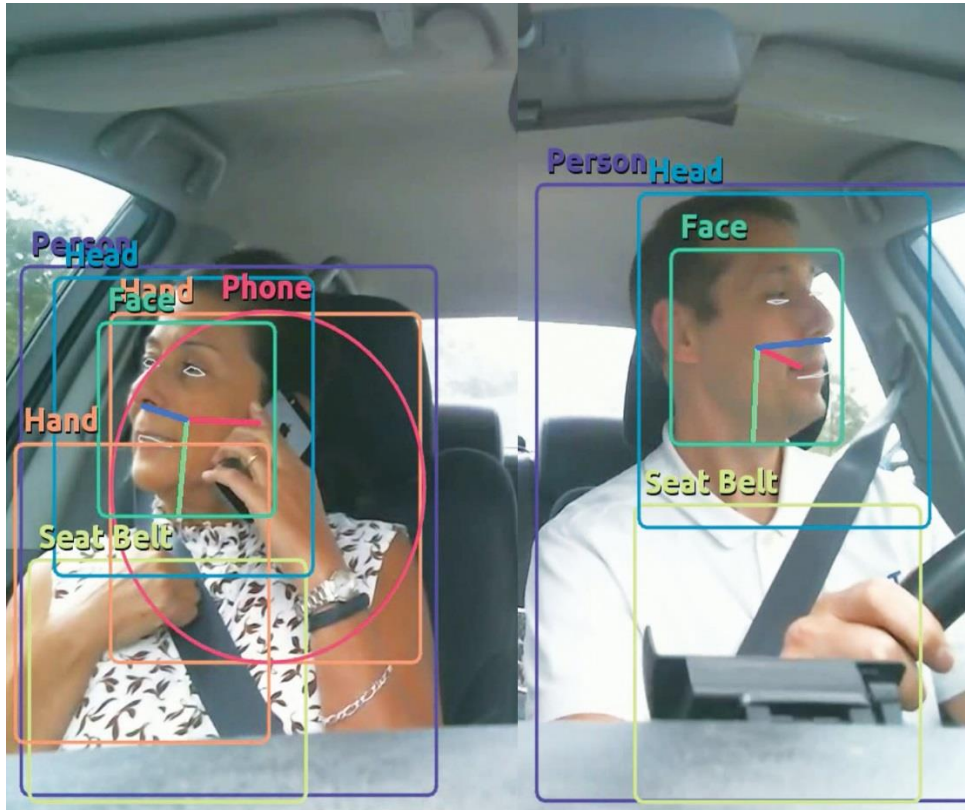


Photo Overview



Typical Inward Facing Camera View
A mobile phone has been detected.



Typical Outward Facing Camera View
A stop sign has been detected. The following distance (in seconds of travel at present speed) is also shown.

Your future, our AI™

Other Machine Learning Systems by 5DT

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|--------------------|--|
| SecuriVUE™ | <i>Video Management System (VMS)</i> |
| ScreenVUE™ | <i>Video Wall & Baggage Scanner Operator Evaluation System</i> |
| SimVUE™ | <i>Simulator Occupant Tracking and Evaluation System</i> |
| AdVUE™ | <i>Targeted Advertising System</i> |
| InspectVUE™ | <i>Automatic Rapid Vehicle Inspection System</i> |

About 5DT

5DT (Fifth Dimension Technologies) is a high tech company specializing in Machine Learning, Virtual Reality and Training Simulators for the Mining, Construction, Trucking, Aerospace and Defense Industries.

5DT has been in business for more than 25 years. It has more than 200 simulators deployed worldwide. 5DT has developed simulators for more than 140 different vehicles, machines or aircraft from more than 40 manufacturers.

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