



Fueled by Data. Driven by
Technology.

The World's Most Intelligent Driver Monitoring Solution

Feature Description

IT SEES. IT SENSES. IT ACTS.

Unlock a New Perspective in Driver Safety

The only AI vision technology system for driver assistance to exceed 90% accuracy across the board



We have processed over 12 billion miles of video data to create the benchmark in AI vision technology



90%

distracted driving detection



95%

facial recognition



92%

accident notification



90%

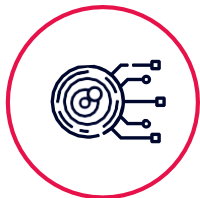
drowsy driving detection



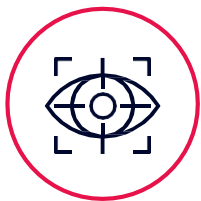
90%

safe distance warning

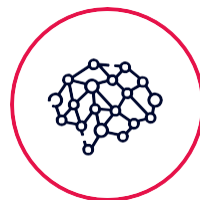




The key to idrive's accurate performance - which is unmatched in our space - **are proprietary, mature AI algorithms** that run a data lake of 11B+ miles of video events collected over 10+ years.



These computer vision algorithms are in place to precisely monitor & accurately identify alertness and attention characteristics. It's all processed in real time, making immediate risk mitigation possible for both drivers and fleet managers. In vehicle and in the cloud.

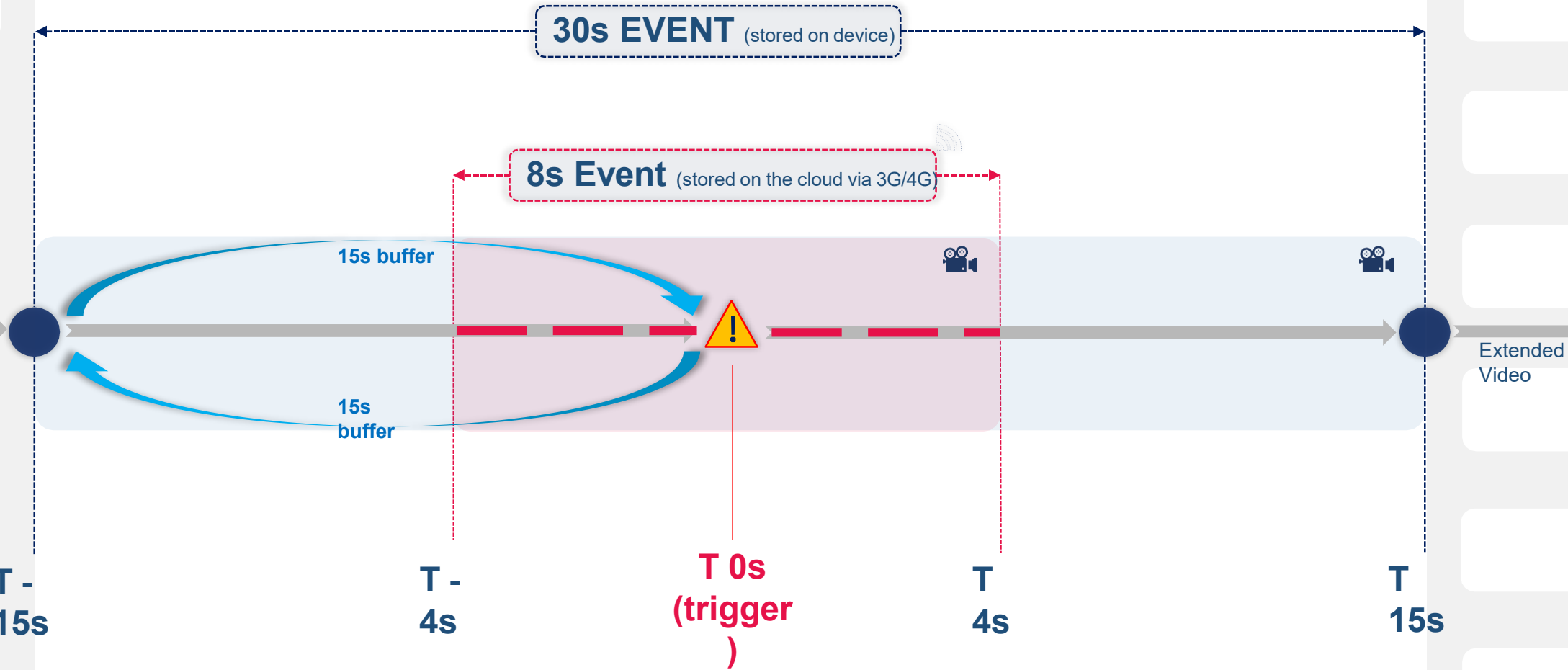


Our AI is also "re-trained" as part of a vast **deep learning** network that constantly improves idrive's performance. The data we have - along with new types of collected data - allows us to predict accidents, warn drivers, assess risk, & more with extreme accuracy monthly.



The IP on all hardware & software is 100% owned by us, with everything built in-house. This keeps us well ahead of the technology curve by providing us the flexibility to integrate third party solutions, customize & add features based on customer needs. Our AI Camera (an IoT device) utilizes the technology and computing power "Onboard" the device to pre-process all data, saving consumers thousands in data transfer costs along with instantaneous decision making.

How does we define a video event?





We are the first in the Video Event Data Recording (VEDR) industry that released Facial Recognition for drivers. Save time with Facial Recognition software built right into the AI camera by watching events and ensuring accurate driver scoring and ratings for training purposes. Be notified of unauthorized use.

How does it work?

- The feature starts working after the vehicle's speed is above 5km/h
- The camera creates a local database of driver templates and looks to match the face that is captured at the time of ignition with a template that has previously been logged as authorized driver by the fleet manager.
- The fleet manager has to go into our cloud and match the templates with the corresponding names
- Upon startup, if the driver is recognized, the camera automatically identifies the driver and logs that information with event videos. Regardless of which vehicle a driver is in, their events and driving data will always be associated with their telematics data.
- A video recording event is triggered named "Face Unrecognized" when the camera cannot match the face to any template in the system.





An event is recorded and uploaded into the cloud when the driver breaches the safe driving distance from the vehicle in front of him. Calibration, by vehicle category and road characteristics, requires under 1 minute.

How does it work?

- SDW algorithm scans the road ahead and it's detecting the locations of other vehicles.
- Due to the calibration procedure, we are accurately determining which of the detected vehicles are in front of your car (on the same lane) and which are on the other lanes and filter out the ones traveling on other lanes.
- We approximate the distance to the closest vehicle in front of you into 4 categories – please see table.
- Calculating your vehicle's current speed (from GPS) and distance to the closest vehicle in front of yours we can determine if your driver is keeping a safe distance.

Distance class category	Distance Meters/Feet	Speed threshold for a SDW event
Extremely close	0-3 m (0 feet-9 feet and 10)	40 km / h (24.8 mph)
Close	3-6 m (9 feet and 10 - 19 feet and 8)	60 km / h (37.2 mph)
Midrange	6-10 m (19 feet and 8- 32 feet and 9)	80 km / h (49.7 mph)
Far range	10-15 m (32 feet and 9 - 49 feet and 2)	100 km / h (62.1 mph)



DROWSY DRIVING DETECTION & DISTRACTED DRIVING DETECTION

How does it work?

- The camera detects and tracks constantly, in real time, the 3D position of the head. A drowsy/distraction event is triggered if the driver looks away from the road more than a cumulated 2.3 seconds period from the last 6 seconds.
- The seconds are cumulated because if the driver looks away once he shouldn't be alerted, but if this behavior repeats itself for a third of the 6 seconds interval this means that the driver is not paying attention to the road.
- The driver won't be alerted and recorded if he looks to left or right to make sure a vehicle is not coming on a road he is looking to go on.





This feature eliminates the need for human evaluation, significantly cutting the margin of error. By collecting data from the accelerometer, the system can identify whether an event was a possible accident.

How does it work?

- After recording a Shock Event (triggered by the accelerometer) a set of AI algorithms on the camera will determine if it is likely that this is an accident and flags the event accordingly before the camera automatically uploads it to Iris (Idrive online platform)
- Once arrived in Iris, a second set of AI algorithms will post-process the event and will evaluate, with a +90% accuracy, if in fact there was an accident
- If the determination is positive for an accident and the platform is set to send immediate email notifications, the designated person will receive the email within 1 minute of the accident taking place

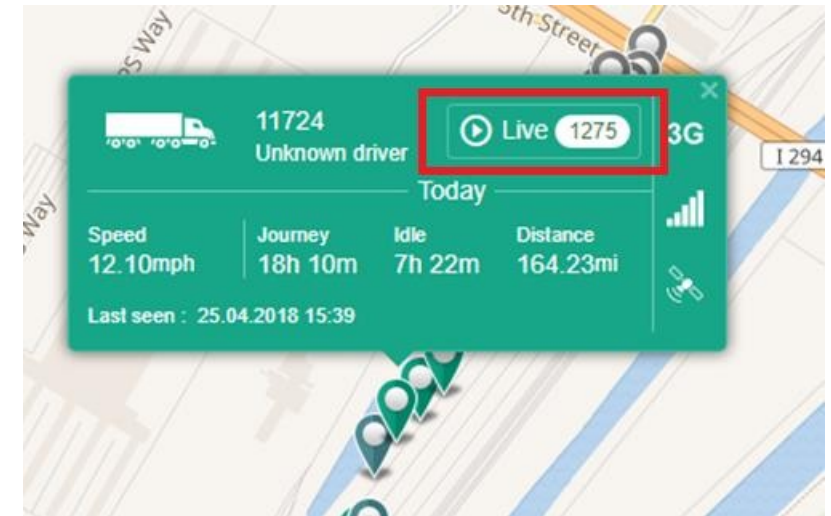




Get the best of both worlds: cost and streaming, with the Idrive Live Telematics events: if you don't know when to look inside your vehicle, but you still need to, you might as well not pay for it. This feature is offered with a limited number of Live Telematics events per vehicle, in a pooled system for a fleet and it is offered by Idrive in the standard subscription model

How does it work?

- Simply select one vehicle in the GPS tracker screen
- Clicking on the LIVE button, will send a trigger to the camera to record a video of both the inside of the cab and outside
- This video will have 30 seconds and will be stored on the SD card on the camera
- Immediately after the recording is finished the camera will automatically upload to Iris an 8 second extract out the 30 recorded (4 before and 4 after the trigger) to be viewed by the Fleet Manager

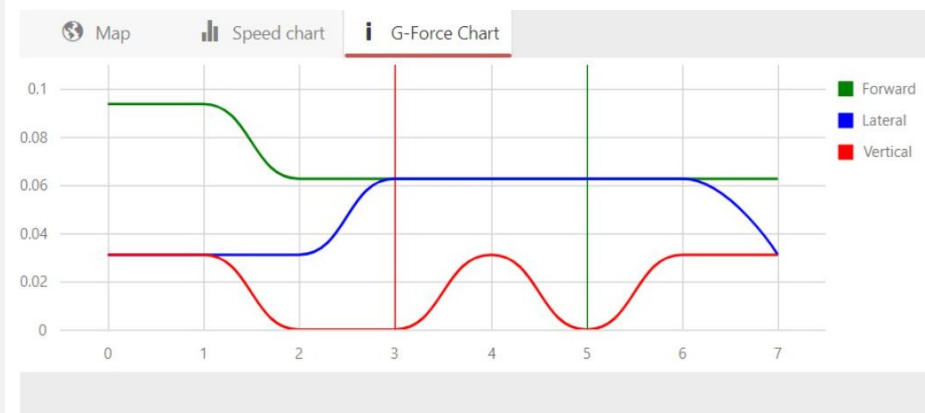




The AI camera is equipped with the latest accelerometer technology. We have been using and studying this technology since our inception 13 years ago.

How does it work?

- Our system records G-Force variations on all 3 axis: x, y and z and triggers an event if the registered values exceed the threshold for that particular vehicle class
- When the driver brakes, swerves or accelerates harshly the camera will trigger a video event
- This event may be uploaded to the online platform if that setting is done
- There are 9 classes of vehicles into which you can assign your vehicles that actually set the accelerometer sensitivities





When your driver parks legally the vehicle and switches the engine off, he is still protected by the AI camera.

How does it work?

- After switching off the engine, the camera goes into Sleep Mode which is actually a very sensitive setting of the accelerometer
- The sensitivity is so low that the camera will any small impingement and record a video event
- This event can be used to exonerate drivers and have perspective where you thought you could not





This type of event can reveal a lot about your drivers

How does it work?

- The system can record periodically video events
- The feature has to be activated in Iris where you are able to set the recurrence of the event (e.g. set the camera to record a video every 30 minutes or 120 minutes)



All Idrive cameras come standard with a wired panic button that is installed on the dashboard, within reach of the driver for easy access.

How does it work?

- If the driver notices abnormal or aggressive behavior from other participants in traffic, they can simply press the button and record valuable information that may help them in a later investigation





GEOFENCE EVENTS

A geofence is an imaginary border drawn around a point on the GPS map for which you want to be notified if it's crossed either way, in or out.

How does it work?

- You simply pick a location and decide how large of an area to include inside the imaginary fence. Once a geofence is created, it can be used as a trigger for alerts and events.
- Once a geofence is created, it can be used as a trigger for alerts and events via email.



SPEED EVENTS

Using GPS tracking to report on speeding is more than just a necessity, it has a significant impact on reducing incidents of speeding among commercial drivers.

How does it work?

- By using two GPS points (locations) we can calculate the distance covered. We can use the clock inside the GPS device (a very accurate clock that synchronizes regularly with the atomic clocks aboard the GPS satellites) to measure how long it took the vehicle to travel between those two points.
- Based on the above determined information we can trigger an Speed Event and record the speeding driver, record the location and the maximum speed



SPECIALISED IT SOLUTIONS (T) LTD.

Fueled by Data. Driven by Technology.

SPECIALISED IT SOLUTIONS. - An artificial intelligence company that excels in video telematics through visual recognition to solve real-world problems with your fleet and mobility strategies.

Combining machine learning and AI, we provide predictive intelligence for real-time driver fatigue, distraction & accident prevention.

Safe drivers are made, not born!

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