



seeingmachines

GUARDIAN

**REAL-TIME
DRIVER FATIGUE,
DISTRACTION AND
ACCIDENT PREVENTION
TECHNOLOGY**

ABOUT SEEING MACHINES

Seeing Machines is an Australian company with more than 15 years of research and development, commercial application and proven expertise in intelligent face and eye tracking technology that enable machines to see, understand and assist people. Our core Intellectual Property brings to life a range of technology applications that make vehicles smarter, with the intelligence to protect, enable and respond.

Today, Seeing Machines deploys technology in a number of cutting-edge applications such as commercial road transport, mining, automotive, and aviation.

GLOBAL REACH

Headquartered in Australia with offices and people in Australia, USA, Europe, UK and Japan, and with a growing distribution network, we are able to support our global client base with the expertise of a local company.

TRUSTED BY THE BEST

Our philosophy is to partner with the best which is why we have built strategic relationships with world leaders such as MiX Telematics, Geotab, Caterpillar, and The Vehicle Group.

If a driver falls asleep for just 4 seconds driving at 100km/h, the vehicle will travel an entire football field without the driver in control.

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At Ron Finemore Transport, we do not compromise on safety of our drivers and assets; it is our absolute priority. In the past years, we have invested a lot of time into streamlining our safety procedures but our work doesn't stop there. We are constantly looking for and investing in equipment and technology that can help us reduce risk and provide a competitive edge.

For us, there was no doubt that Guardian is the best technology on the market that will keep our drivers safe at all times, and that's why we installed it in all of our ca. 250 heavy vehicles. We have also recognised the added value that comes with the insights in drivers' behaviour and the opportunity to learn from it and educate our drivers. This was without doubt one of the best investments in the safety culture of our company.

Mark Parry,
 Managing Director, Ron Finemore Transport

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Lifesaving is the first thing that comes to mind to describe Seeing Machines.

After agreeing to trial six units for 6 months we began the install process and trial period. Upon receiving the first report and viewing the footage, I found it so alarming that we immediately issued a purchase order for the trial units. This has been the most cost-effective insurance policy I have ever had.

Since the initial purchase of six units we have begun to retrofit four units per month in current equipment while all new equipment purchased has Seeing Machines fitted during the pre-delivery process.

Ken Easter,
 Managing Director, Easter Group



1.35m people die on the world's roads every year.

Drivers who text are 23 times more likely to have a crash.

PREVENT. PROTECT.

Business efficiency and profit are some of the essential requirements for success, but operating a profitable commercial transport or logistics business requires more. Your drivers are fundamental to this success and SAFETY has to be a key consideration. Even the most experienced drivers are not immune to fatigue and distraction and these two factors can have dire consequences, posing large risks to their personal safety and your business.

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Guardian has been scientifically proven to reduce fatigue events by more than 90%.

HOW CAN YOU INFLUENCE THE BEHAVIOUR AND EFFICIENCY OF YOUR DRIVERS FROM THE CONTROL ROOM?

Guardian, by Seeing Machines, plays a pivotal role in protecting drivers and can assist you in preventing fatigue and distraction from happening in your vehicles. Guardian delivers an intelligent driver safety solution that uses in-cab sensors to monitor the driver's levels of fatigue and distraction, in real time. With 24/7 monitoring and analytics services, this is a complete safety solution for commercial vehicles.

The in-cab sensor monitors signs of fatigue or distraction, warns drivers through a set of alerts, providing protection in real-time. At the same time, managers are notified about the event and can take immediate action to manage the situation and keep their driver safe, straight away.

HOW IT WORKS

HARDWARE COMPONENTS

- 1 VIBRATION MOTOR
- 2 COMPUTER/CONTROLLER
- 3 IN-CAB GUARDIAN SENSOR
- 4 FORWARD-FACING CAMERA

REAL TIME IN-VEHICLE

24/7 SUPPORT



01 EVENTS

Driver fatigue or distraction has been detected



02 ALERTS

Seat vibration and audio alerts are activated to warn the driver



03 ANALYSIS

Analysts review the footage and notify the manager



POST-EVENT FEEDBACK



04 ACTION

Manager can act upon the notification and determine the best course of action – taking a break, ending the shift...



05 EDUCATION

Ongoing changed behaviour, driver coaching and improved processes implemented by the operator

CHECKLIST

REAL-TIME FATIGUE & DISTRACTION DETECTION

Fatigue is a major cause of large truck crash fatalities globally with micro-sleeps and drowsy driving impairing a driver's ability to concentrate on the road ahead. At the same time, distracted driving has become a serious problem with drivers often attempting to multi-task using mobile phones and communicating with others.

REAL-TIME IN CAB ALERTS [AUDIO / VIBRATION]

Guardian provides audio alerts along with powerful seat vibration which was designed in off-road environments including the mining industry, to wake the driver up.

REAL-TIME FATIGUE & DISTRACTION EVENT VALIDATION

When a fatigue or distraction event takes place the data and a video capture of the event are sent to the Guardian Centre for review and verification by an analyst.

REAL-TIME INTERVENTION WITHIN MINUTES

Within minutes of a fatigue event being verified, the Guardian Centre will contact the fleet's nominated manager so that they can initiate an intervention plan.

ADDITIONAL FEATURES:

- 24/7 monitoring and intervention by Australian/US based Guardian Centre
- Location of the event
- Speed detection
- Event Reports – validated and customised
- Daily / Weekly Activity Reports
- Dedicated account manager
- Data storage on Amazon





GUARDIAN

GUARDIAN LIVE

Guardian Live is an online tool that provides fleet managers with their fleet data. Clients are able to investigate the time of day driver events occur, the location and duration of all events, and the speed at which the driver was travelling. Managers are also able to review video footage of each event to gain understanding of the situation as it evolves.

Every 5th fatal road accident involves driver fatigue.

Driver distraction is a factor in over 16% of serious crashes on Australian roads.



FREQUENTLY ASKED QUESTIONS

1. HOW DOES THE SYSTEM KNOW IF THE DRIVER IS FALLING ASLEEP?

Guardian tracks eye, face and head position to determine whether the driver is fatigued or distracted. If there are signs of fatigue or distraction detected, the system activates in-cab alerts.

2. WHEN IS THE DRIVER ALERTED?

As soon as the system detects a fatigue or distraction event.

3. WHEN DOES MANAGEMENT GET NOTIFIED?

If the event is verified as fatigue, the client gets notified in accordance with the agreed fatigue intervention plan (contact tree). If the event is a distraction event, management are able to view this at any time through Guardian Live.

4. DOES GUARDIAN HAVE CONTINUOUS RECORDING CAPABILITY?

Please note Guardian is NOT a CCTV.

Guardian has the capability to store approximately 24 hours of data (including driver and forward-facing footage) for review if required. During driving operation, new data will overwrite the old data after 24 hours. In order to preserve information, the data will need to be removed as soon as possible or the system disconnected until the data can be removed. Seeing Machines does not guarantee that footage will be recoverable, in particular where power to the processor is disrupted.

5. WHAT DATA IS CAPTURED FOR AN EVENT?

Guardian captures duration of the event, speed of the vehicle at the time, distance travelled during the event, which alarms were activated, GPS location, video footage of the driver together with footage captured by the forward-facing camera (if installed).

6. ARE YOU ABLE TO REMOTELY ACCESS THE CAMERA AND MONITOR THE DRIVER?

NO. Guardian is not a CCTV and cannot be accessed remotely under any circumstances. Although the sensor is always on, Guardian does not record and store normal driving behaviour – the footage is only taken during the fatigue or distraction event.

7. DOES SEEING MACHINES SAVE FOOTAGE OF THE EVENT?

Verified events are available to view in Guardian Live for up to 12 months.

Almost 400 Australians die every year from falling asleep at the wheel.

BUSTING THE MYTHS

DOES FATIGUE HAPPEN ONLY AT NIGHT?

NO. Fatigue can happen any time of the day or night. All day, every day.

DOES FATIGUE HAPPEN ONLY DURING LONG TRIPS/LONG WEEKS?

NO. There are indications that some of the biggest risks actually come in the first couple of hours of shift or after a break.

DO DRIVERS ALWAYS KNOW THEY ARE FATIGUING?

NO. Unfortunately, many drivers do not recognise when they start fatiguing and are surprised to learn that they have experienced a microsleep event.



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