



SPILLARD
vehicle safety systems



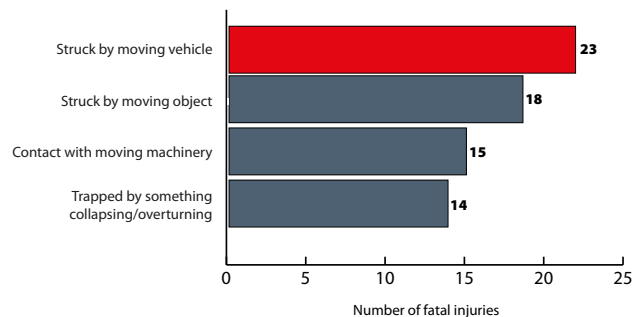
AI Human Detection System

Construction Vehicles

You're in safe hands | spillard.com

The issue

According to a recent Government report, of the 123 UK workers killed in work-related accidents in 2021/22, moving vehicles accounted for 23 of those deaths.



As construction sites become busier with more complex builds, and with a greater collaboration of heavy plant vehicles and human interaction, it is no surprise that moving vehicles accounted for 23 deaths in 2021/2022. Clearly this is far too many, and systems need to be put in place with the necessary technology able to work towards reducing these figures.

Using our 30 years of industry experience and internal R&D department, Spillard has designed the ideal solution to target this issue.

Pete Spillard, Managing Director: “The clear risks associated with moving vehicles cannot be understated. With new risks presenting themselves year on year, we see it as Spillard’s mission to help reduce the number of accidents, both fatal and non-fatal.

Spillard Safety Systems has evolved into one of the UK’s largest vehicle safety equipment suppliers to the construction, extraction, aggregate and transportation industries, with our customers ranging from quarrying and logistic conglomerates, to original equipment manufacturers.”



“Preventing deaths and injuries caused by moving vehicles is our top priority.”

The Spillard approach

Determining the best solution starts by understanding the problem

Spillard's AI Human Detection System has undergone extensive research and development, including from our own in-house R&D department over the last two years, field testing of up to 150,000 miles and 15,000 hours on large commercial and construction vehicles; HGVs, excavators, loading shovels, compactors and FLTs.

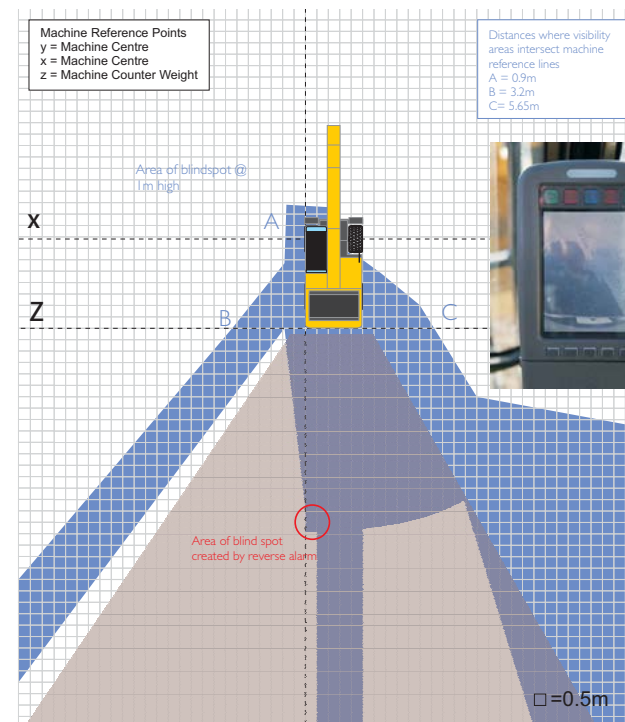
Already known as the industry leader in eliminating risk, we have a simple but effective 3-point process for eliminating your blind spots. Starting with our very own ground-breaking vision studies and over 30 years of construction and mining industry experience, we have detected blind spots on a number of different construction vehicles.

Spillard 3-point process

1. Using current reports or by undertaking a bespoke vision survey, we focus on your vehicle's vulnerabilities by identifying potential accident hot spots
2. We produce a detailed document that with identified solutions such as 360° cameras, radar, speakers, in-cab screens, human detection devices etc.
3. Our mobile team of technicians come to you, fit and test all the required equipment and software, and finish by providing you with a paperless installation report with details and images sent directly to your desk

Visibility Study

Spillard will provide a visibility study to truly understand the issues you are experiencing on-site in your everyday working environment. It's not until we understand these problems that we can fully provide the solutions.



The above image shows a typical CAD drawing of key vehicle reference points. This helps establish the angle of sight and, more importantly, the blind spots whilst you are operating your vehicle.



ASK ABOUT OUR VISION STUDIES

Do you experience restricted visibility whilst operating your vehicle? Do you struggle manoeuvring your vehicle on-site, or in and around the yard for fear of hazards?

We can carry out a vision study on your vehicle at your premises to resolve and improve your operating cab vision.

BOOK A VISION STUDY WITH SPILLARD TODAY



The results

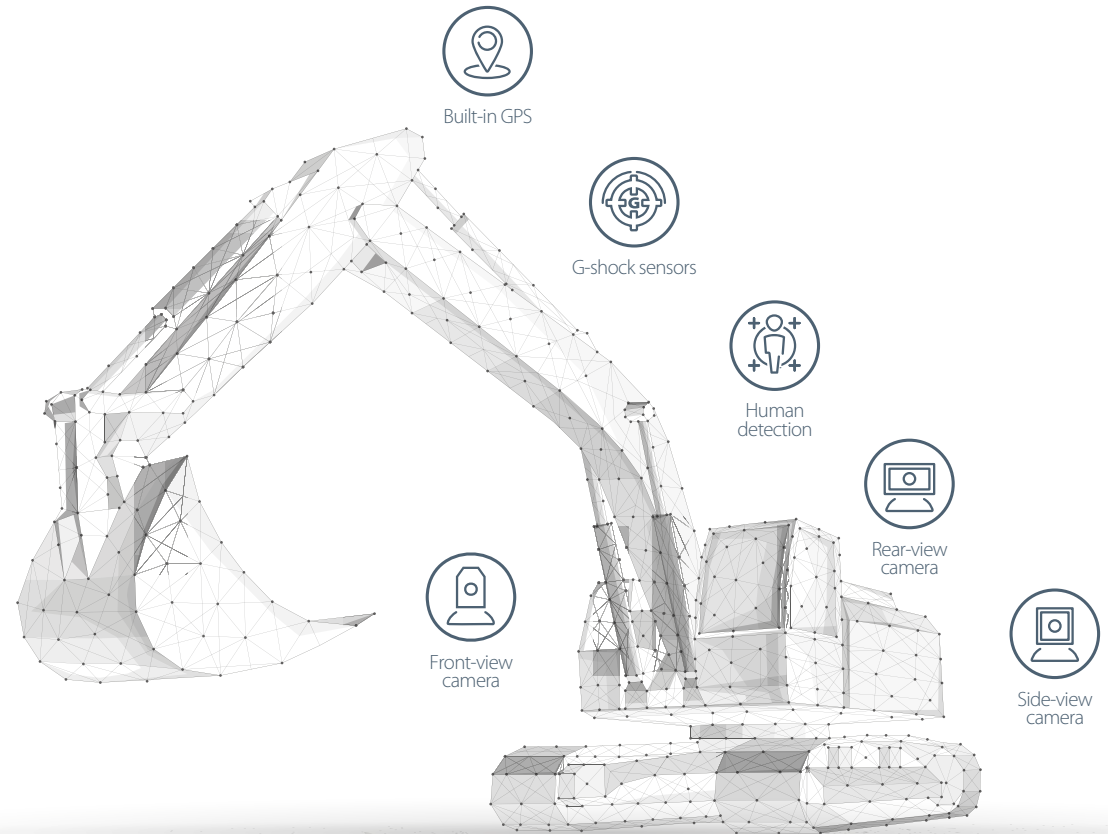
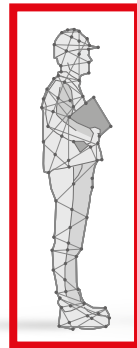
Our scan, detect and alert system saves lives

The Spillard AI Human Detection System identifies only the human form through deep intelligent mapping. This simple, yet clever system only detects humans, so removes the chance of an annoying driving experience caused by more basic detection models that detect other objects.

Our system doesn't stop there; by adding a voice alert, the responsibility is shared by operators and workers alike.

HDS application is available for all heavy plant vehicles, including:

Bulldozers
 Backhoe Loaders
 Site Dumpers
 Cranes
 Telehandlers
 Compactors
 Excavators
 Pavers
 Rollers
 Concrete Mixer Truck
 HGV Tipper Truck
 Forklift Truck



Spillard LIVE
 Connected to video telematics platform



Always on
 System cannot be switched off or ignored



20m
 Human detection up to 20 metres



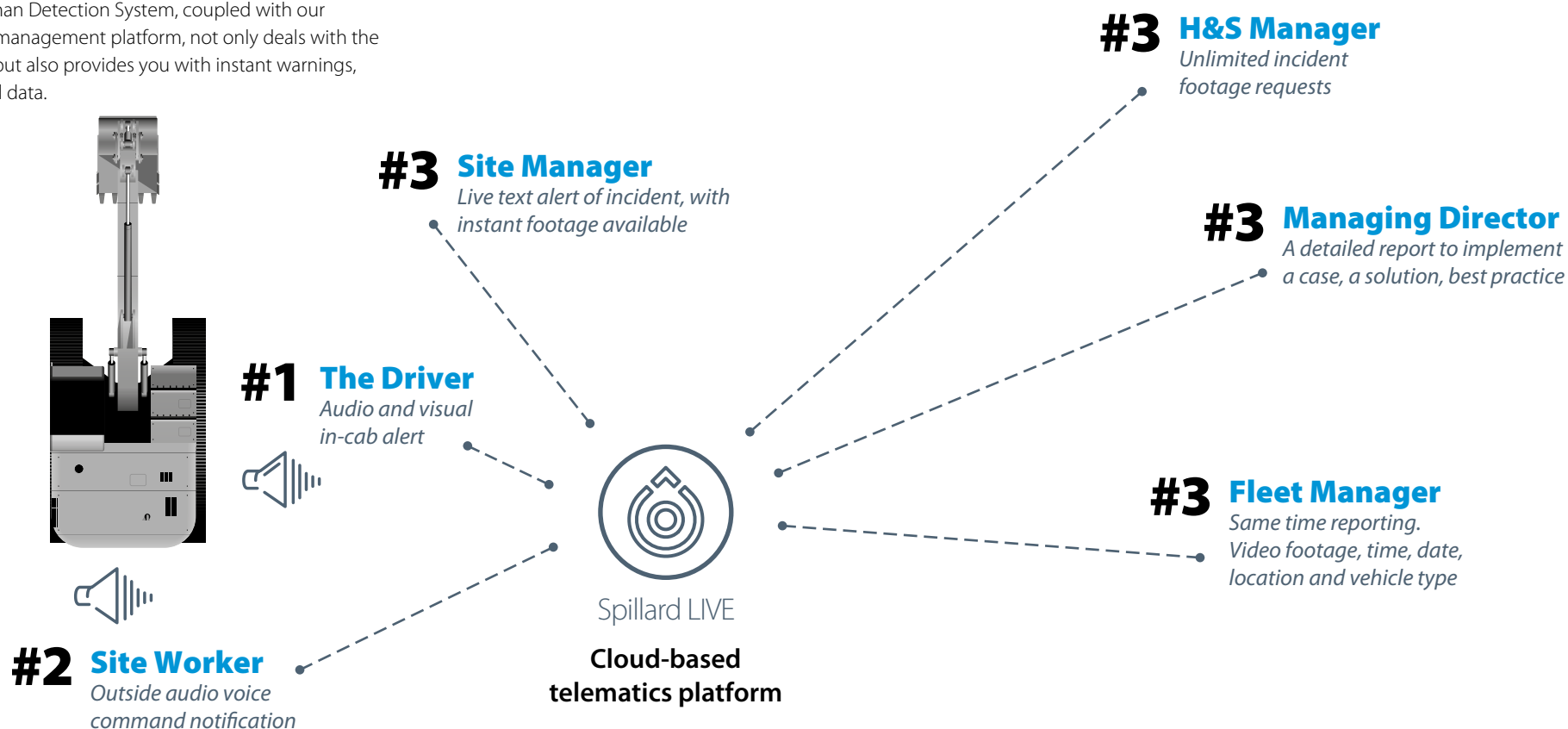
Multi-detect
 Multiple detection 100% of the time



All weather
 Robust design, effective in extreme weather conditions

The integration

From years of working with all levels of vehicle safety, we understand the importance of data in tackling on-site personnel safety. Our AI Human Detection System, coupled with our Spillard Live fleet management platform, not only deals with the immediate issue, but also provides you with instant warnings, reports, video, and data.



The in-cab solution

AI Human Detection System

Operator display

User friendly systems within the cab provide both visual and audible alerts, collaborating with what the devices pick up and instantly alerting the operator with illuminated coloured sections, depending on the direction of the alert. The operator can then react quickly and accordingly.



System Active



4zone Detection



Rear Detection



Front, NS, OS, Detection



Front, NS, Detection

Features

- Red/amber/green detection zones to support near miss reporting and critical encroachments
- 0.5-20m detection zones
- Active alerts when machine is in a working state
- Speech technology
- Error sensing and reporting
- Designed in accordance with GB38893 and ISO16001
- Spillard Live platform integration will enable full live and historical video analysis, near miss and encroachment reporting, and tracking capabilities

Options

- External 'person detected' speaker
- Directional in-cab audible system
- 360° surround view display with highlighted zone detection
- Additional sensors for larger or complex vehicles (nine max)

The detect and alert solution

AI camera technology



Camera detection

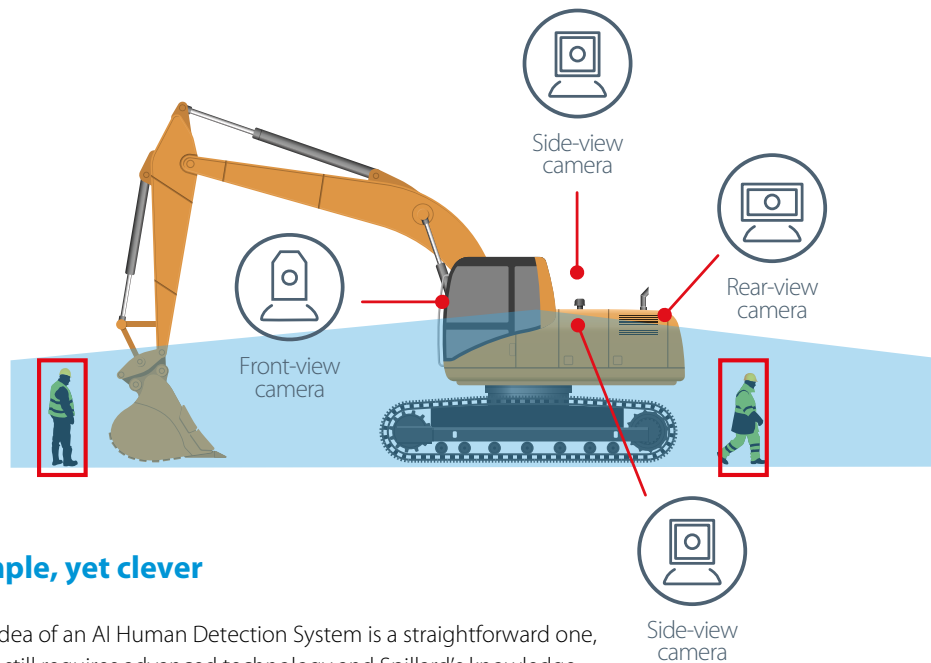
A HD intelligent human detection camera adopts deep learning technology to detect the human form in front of, on the side of and behind the vehicle in real time, warning operators instantly of risks of collision with nearby humans. The intelligent camera can be installed on the side, front and back of the vehicle, to detect the human form within 20 metres in real time.

This technology can be applied to both heavy plant vehicles and HGV, with the flexibility of single or multiple cameras.

Features

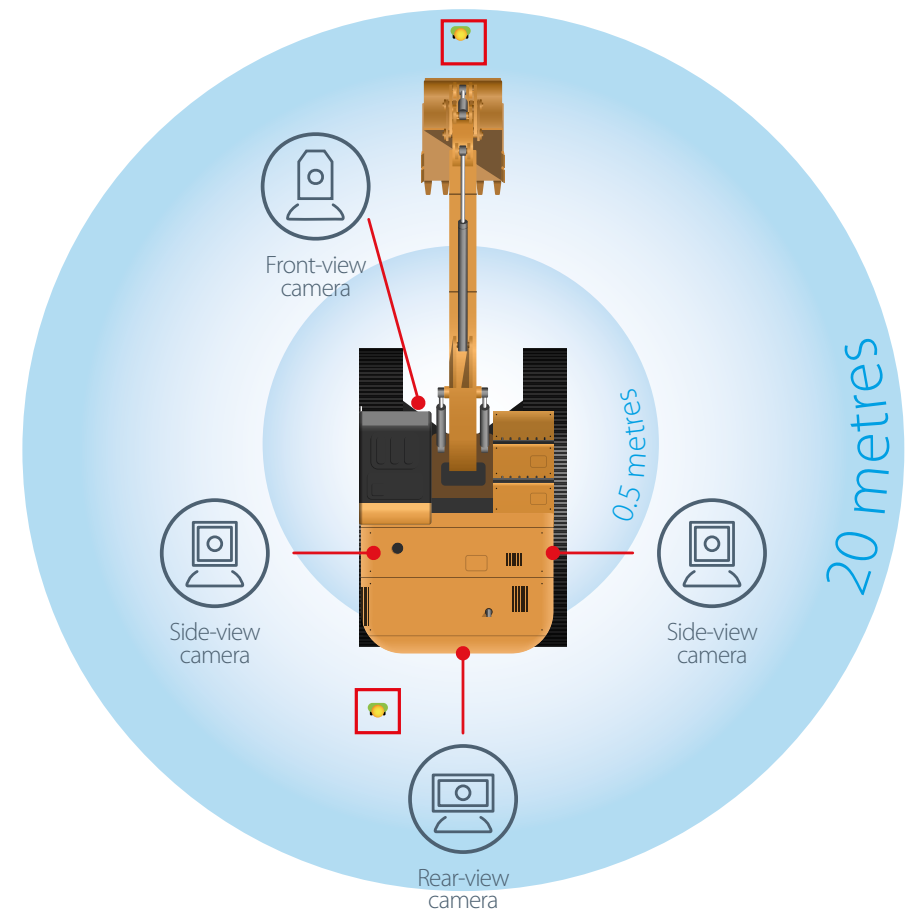
- Waterproof/dustproof rating: IP69K, with shock resistance of 5.9G
- The detection distance of front and side view is 0.5-20m

The complete system



Simple, yet clever

The idea of an AI Human Detection System is a straightforward one, yet it still requires advanced technology and Spillard's knowledge base to ensure that our system only detects the human form.



Spillard Live

Designed for the future of connected vehicle technology

Cloud platform technology

Spillard Live cloud platform captures, processes and learns from an equally innovative video telematics system that displays real-time video and analytics from multiple cameras over a fleet of vehicles simultaneously.

All of this live data is safely stored on a UK secured system with full GDPR compliance, providing invaluable trend analysis to support higher safety standards and aiding in better driving habits and accident reduction.



SPILLARD LIVE
Video Telematics

This system is rich with data and live analytics, giving you control of your fleet's behaviour.

- UK based platform, GDPR compliant
- Unlimited data access, and unlimited users
- User and fleet hierarchy controls, giving you customised access and security levels to meet the needs of your organisation
- Smart maintenance, camera and vehicle status alerts, determining preventative maintenance programmes
- Intelligent reporting, with information provided when needed, plus customised reports from critical alerts and bespoke notifications emailed to your inbox
- Live, historical and requested video - replay historical incidents to improve the speed and efficiency of internal investigations for damage claims or accidents



GDPR compliant



Secure UK servers



Video telematics



360° multiple camera views



Fleet management



24/7 alerts



Trend analysis



What happened here?

The right partner for you

Determining the best solution starts by understanding the problem

"The clear risks associated with moving vehicles cannot be understated. With new risks presenting themselves year on year, it is up to us to help reduce the number of accidents, both fatal and non-fatal. Our priority is keeping people safe and making sure these numbers fall."

"Our commitment and attention to detail, along with our continuous improvement policy, has earned our products and solutions acknowledgement by the HSE, as well as numerous awards and commendations from industry professionals. It is clear and reassuring to know that working with Spillard, you're in safe hands."



Pete Spillard
Managing Director

Services & products



Fleet
management



Tailored
solutions



National
coverage



Construction
vehicle safety



Safe vehicle
compliance



24 hour
support



SPILLARD
vehicle safety systems

You're in safe hands

30
YEARS
1992-2022

Working in partnership



Constructionline



REG 10
VCA
APPROVED

