

SAFETY SHIELD

AI HUMAN FORM RECOGNITION SAFETY SYSTEM
FOR CONSTRUCTION VEHICLES



HSE
AMERICAS



**SAFETY
SHIELD**
BE SAFE BE SHIELDED

“OUR VISION IS TO IMPROVE THE OVERALL
SAFETY FOR CONSTRUCTION WORKERS
ACROSS THE GLOBE”

Jonathan Guest
CEO - Safety Shield Group



SAFETY SHIELD

LIFESAVING TECHNOLOGY FOR ALL PLANT VEHICLES USED BY THE SOME OF THE UK'S TOP COMPANIES

Safety Shield is the most advanced AI human form recognition safety system available on the market. It can be fitted to any type of plant, for industries such as; construction, rail, mining, demolition and waste.

The system cleverly integrates AI human form recognition with strategically placed HD cameras. An in-cab LED visual and audio alert to warn the driver of a pedestrian in close proximity, and an additional module can be fitted for an external alarm and Digital Thumbs Up display to allow site personal to approach the machine safely and from the correct direction.

The Safety Shield system scans and detects all objects around it, but the smart technology will only alert the operator to pedestrians and vulnerable site personnel entering the danger recognition zones. By filtering out objects other than humans, the Safety Shield system reduces unnecessary distractions for the plant operator.

The system has adjustable human form recognition zones that range from 0.5 up to 50 meters which are unique to the specific type of machine and can be easily calibrated for the operating environment.





















“SAFETY SHIELD FILTERED OUT OBJECTS
OTHER THAN HUMANS AND TOTALLY
REDUCED UNNECESSARY DISTRACTIONS”

Machine operator

SAFETY DETECTION ZONES

UNIQUE ZONE CONFIGURATIONS FOR ALL CONSTRUCTION MACHINES AND SITE REQUIREMENTS

ATD	CRAWLER CRANE	ROLLER	WHEEL LOADER	GRADER	DOZER	TELEHANDLER	DUMPER	EXCAVATOR
								
								

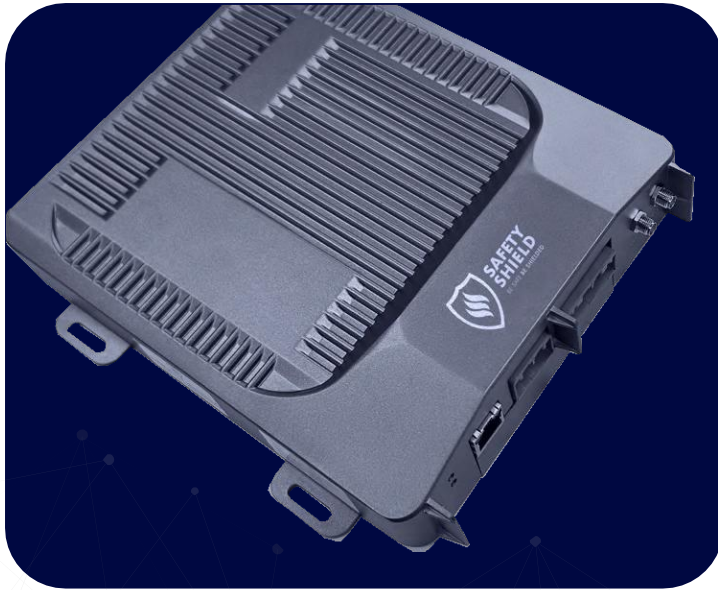
Examples of detection zone configurations. Zone configurations can be adapted depending on the requirements for each machine and site requirements.



SCAN THIS QR LINK TO SEE ZONE CONFIGURATIONS ON SPECIFIC MACHINES

TECHNOLOGY

AUTOMOTIVE GRADE COMPONENTS FOR THE HIGHEST STANDARD OF RELIABILITY IN HARSH ENVIRONMENTS



AI CORE SYSTEM UNIT

The brain of the AI containing the central processing unit that all external components connect to.



HD CAMERAS

HD cameras are waterproof, dust proof and shock resistant. Recognition distance of front, rear and side view can be set between 0.5 to 50 meters



OPERATOR INTERFACE

Simple and user friendly warning system within the cab provides both visual and audible alerts

A close-up, blue-tinted photograph of a robotic gripper holding a square microchip. The chip has a grid of gold pins and a central black square. The background is a blurred industrial setting.

**“THE ADVANCED TECHNOLOGY BEHIND
SAFETY SHIELD IS A TOTAL GAME CHANGER
FOR CONSTRUCTION SITE SAFETY”**

Site Manager



SAFETY SHIELD VUE

SAFETY SHIELD VUE PROVIDES REAL-TIME PLANT INFORMATION, VIDEO RECORDS, SITE ALERTS, TOGETHER WITH INSIGHTS AND ANALYTICS

The cloud-based portal gives you the option to monitor safety on site remotely, anywhere in the world via web or mobile device. However big or small your site is, Safety Shield Vue will radically improve behaviour on site and help ensure your workforce and members of the public are protected at all times.

KEY FEATURES INCLUDE:

- Live video streaming from all cameras
- Vehicle location and live GPS tracking
- Heat mapping of all Safety Shield alerts
- Live data reporting of all collision alerts
- Time, date, location stamped alerts
- Cyber essentials + GDPR compliant
- Multi user access levels



OPTIONAL ADVANCED SAFETY TECHNOLOGY

ADDING AN EXTRA LEVEL OF SAFETY ON SITE WITH
DIGITAL THUMBS UP AND TILT SWITCHES

DIGITAL THUMBS UP SYSTEM

OUR DIGITAL THUMBS UP GIVES SITE PERSONNEL A SAFE WAY TO INTERACT WITH MACHINE OPERATORS

Safety Shield system has integrated a Digital Thumbs Up display into its operating system.

The thumbs up procedure enabling a site user the ability to safely communicate with the machine operator is widely adopted across the construction industry.

When a site user wants to approach the machine, they give a thumbs up gesture from a safe distance to the operator. Once the operator has seen the thumbs up signal, they will bring this machine to a controlled stop.

By pressing the in-cab Digital 'Thumbs Up' button the machine will then be disabled and the exterior LED sign will change from a red no entry sign to a green thumbs up sign with an audible external acceptance message.

This then allows the site personnel a safe way to approach the machine without any doubt they have been seen.



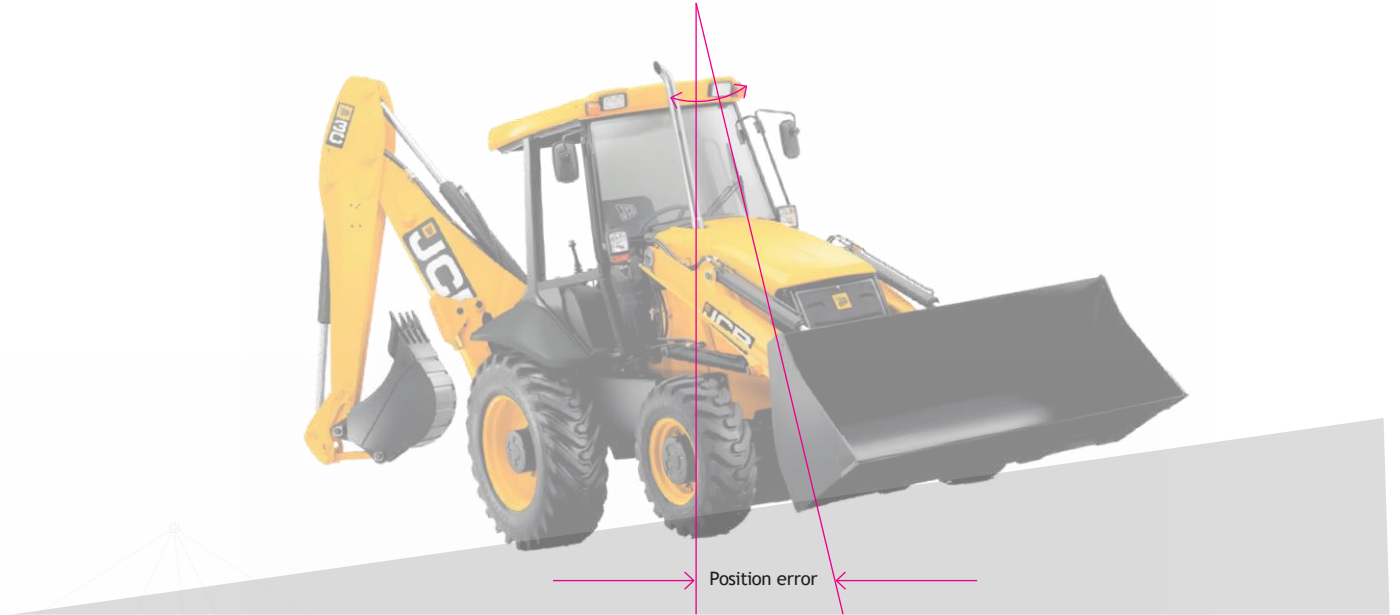
TILT SENSORS

WE HAVE DEVELOPED A RANGE OF ELECTRONIC TILT INDICATORS SPECIFICALLY FOR USE IN CONSTRUCTION MACHINERY

The Safety Shield system can be fitted with a tilt switch component to constantly monitor the chassis angle of a machine to ensure that it is working within a safe angle to operate.

The tilt sensor warns the machine operator if the angle is unsafe, giving them the opportunity to address the danger and reposition the machine to a safer working platform.

Tilt sensors have been proven to enhance safety conditions for operators and play a key role in preventing tip overs and other workplace accidents.



SAFETY SHIELD

YOUR TRUSTED PARTNER FOR ON SITE SAFETY WITH OVER 30 YEARS OF CONSTRUCTION INDUSTRY EXPERIENCE

Jonathan Guest is CEO of Safety Shield Group. Safety Shield Global designs and manufactures AI human form recognition systems in the United Kingdom and is developing advanced systems for autonomous operation of mobile plant and machinery.

Prior to starting Safety Shield, Jonathan led a R&D team for 14 years developing AI technology and robotics for collision avoidance.

As part of this R&D process Jonathan and his team worked alongside government, transport authorities, research institutes, International construction companies and OEM's to develop this unique technology and create the Safety Shield multi award winning AI platform.

Jonathan also has over twenty years' experience in the construction and plant industry at management and executive level.



SAFETY SHIELD

AI HUMAN FORM RECOGNITION SAFETY SYSTEM
FOR CONSTRUCTION VEHICLES

For further information visit www.hseamericas.com



**SAFETY
SHIELD**
BE SAFE BE SHIELDED