

Safety Awareness Solutions

Leica Geosystems' unique **Modular Safety Awareness Solution** will increase worker safety awareness and visibility between workers and machine operators to prevent machine-to-people, machine-to-machine, and machine-to-objects collisions. Increased visibility, raises awareness which leads to fewer incidents and higher working safety and job satisfaction.

Construction without Safety Awareness Solutions

- Challenging for operators to have full awareness of ground personnel.
- Dealing with blind spots on construction sites, resulting in serious injuries in the construction industry.
- Difficult weather conditions can impair visibility on site.
- Accidents on site due to lack of communication between workers and machine operators.

Construction with Safety Awareness Solutions

- Protecting ground personnel, machine operators and construction material.
- Helping decrease accidents, fatalities, damage to infrastructure, production stop, fees and fines.
- Increasing machine operators visual overview.
- Cost savings such as: penalties, worker's compensation, insurance, machine damage and machine standstill.

PA80

- Combines the tag worn by personnel moving around on foot, instruments, and the MC1 machine control solution.
- Up to 7 anchors per machine.
- Will **automatically alert the operator** to the risk of potential collisions between personal and machines.
- The machine operator receives **visual and audible warnings** on the in-cabin display.
- Tag panic alert notifies machine operators with PA80 within 50 m range.
- With three or more anchors PA80 can **triangulate the exact entry** of the tagged object.

VA80

- Flexible plug-and-play IP camera solution **integrated into Leica MC1** for extended operator view and image capture.
- Custom-made rugged camera configuration.
- Image capture of single log points stored with geographic location.
- CRS140 Camera IP with **120 degrees field of view** in run screen mode.
- Incident or hazardous situations can be captured and synced to both USB and ConX for export.

PA10

- A tag is worn by personnel moving around on foot that can communicate with vehicles on sites.
- Stand-alone Personal Alert for vehicles without MCP80/MC1.
- The PA10 gives **audio, visual, and vibratory** feedback to the pedestrian as well as visual and audible feedback to the machine operator.
- Universal solution for pedestrians.
- Pedestrians can trigger a **tag panic alert** that notifies the machine operators.



Audio



Visual



Vibration

CAS

- Collision avoidance (CAS) can be added to both PA10 and PA80 solutions.
- Machines can "talk" to other machines over **800 m** away without a line of sight and calculate potential collisions from a much further distance than the PA anchors.
- Allows **speed definition**. If the defined speed is exceeded, an alarm will signal.
- Machine operator panic alerts can be triggered via CAS system.
- A defined area or an obstacle can have specific alarms defined.
- Works with GNSS.
- **Protection of all:** pedestrians, machines, and infrastructure.