

# Proximity Warning and Alert System



Collisions between vehicles and with personnel can be prevented with **SIPL Shield**. As soon as a person or another vehicle enters a pre-defined hazard zone, the operator will receive an audible and visible warning in the cab. This significantly decreases the odds of a collision occurring.

**Let us ask you a question. Can we save lives on our sites only with these?**



*Workers on sites face constant risk from moving equipments. Man-machine incidents are increasing due to reduced project timelines and increased machine use. And, prevailing safety procedures are unable to ensure complete worker safety.*

## SIPL Proximity Warning System:

### Reduce the Risk of Accidents

Significantly reduce accidental collisions and near misses to pedestrian workers.

### Create Safe Working Environments

Improve situational awareness and safety culture across work sites.

### Invaluable Site Safety Information

Identify, monitor and improve areas of risk using recorded near miss occurrences and management information.

## Accidents are resulting in loss of lives and therefore our solution is designed to foster a zero accident environment to:

Save lives and prevent disabilities

Provide a 360° safety system that covers out of sight workers

Increase worker confidence

Improve site safety practices

Save project downtime due to accidents

Prevent loss/damage of equipment

Avoid legal litigation and liabilities

Qualify for projects easily

Implement safety monitoring to improve operator/worker discipline

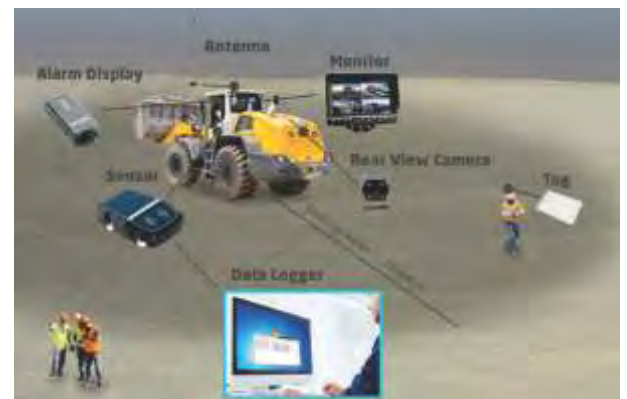
## Proximity Warning and Alert System

Distances programmed based on user's preferences.



### 360° Detection Area

Fits any moving or static vehicles and machines



- ✓ Detects people or vehicles in a pre-defined hazard zone
- ✓ Warns equipment operator using audible and visual signals
- ✓ Records events with a data logger
- ✓ Ability to automatically decrease the speed of equipment upon detection of tag (optional)

## TAG BASED SOLUTIONS

- RFID controller, antenna and alarm are mounted on of the spreader
- RF range is adjustable depends on active/passive tags
- Whenever a tagged object is detected alarm will be activated
- Output of the controller can be used to control boom barriers also
- Implemented at MICT, Uran



### Main Features

Active RFID based control unit and transponder tags to operate and detect intrusions within an adjustable distance of 3 meters to 15 meters around a 360° perimeter

High speed read-write active tags with superior anti-collision features

On board data logging of intrusions and other events

USB and WLAN/LAN based connectivity to controller for system configuration and data log access

High power antennae for improved field coverage

RoHS compliant components

## NON-TAG BASED SOLUTIONS

This system is designed for object detection with system alerts providing operators with time to respond to hazards and avoid collisions leading to potential accidents. The system is based upon frequency modulated continuous wave radar that detects stationary and moving objects.



The system can help operators of construction and mining equipment, and for that matter any heavy equipment to minimize the risk of incidents therefore translating into overall cost reductions and improvements in operational efficiency.

Diminished visibility plays a key role in many such accidents and the size and power of such vehicles leave little room for error. Blind spots can be significantly large on the sides and rear of such vehicles and combined with dust and debris raised during excavation can have a detrimental effect on visibility.

### How system works?

To help overcome these problems, our system is typically installed at the rear of heavy vehicles and dump trucks helping the operators work more safely. Where needed enhanced systems using a pair of radar sensors can also be deployed.

The sensors emit fan shaped beams of high frequency microwaves and to minimize false alarms the sensors are configured to create a sensing area corresponding to the blind spot therefore ignoring objects outside that area. Alternatively, objects entering the sensing area alter the time delay of the return signal therefore prompting the system to signal visible and audible alerts to the operator through the indicator console installed in the cabin close to the operator.

## CAMERA BASED SOLUTIONS

An onboard camera and LCD monitor system allows the operator to visually check for obstructions instantaneously.

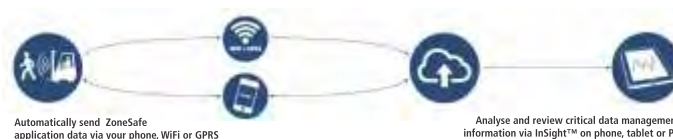
Multiple number of cameras can be connected.

Can also integrate with existing MMI setup

Waterproof (IP69K) heavy duty industrial grade 170° view angle 0 lux visibility cameras.

Waterproof (IP67) heavy duty industrial grade high contrast 7" four way display with remote

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