

# BLINDSIGHT INTELLIGENT SAFETY SOLUTION

Reducing inherent risk from plant and personnel & plant and plant interaction using improved Artificial Intelligence.

Plant incidents with other plant, people, light vehicles, or assets are a likely risk on construction sites.

To mitigate this, the project team at Keep Ballarat Moving have installed an innovative plant detection device called Blindsight to alert operators of objects in their surroundings.



In cab view of Blindsight installed in plant (left) and snapshot of Blindsight video showing rear view on project grader (right), this footage is available for review in the event of an incident.

## The situation

Plant incidents with other plant, people, light vehicles, or assets are a high risk on construction sites. Plant operators have a restricted view from cabins and are often concentrating on the task at hand. This makes it possible for plant or people to stray into and enter the plant operating zone without the knowledge of the operator.

Toolbox Spotter (LSP 0021/12042021), was a previous innovation designed to mitigate such hazards. However, Blindsight is a significant step up from its predecessor, designed by the same organisation with multiple improvements.



Scan QR Code  
to watch Video  
of Blindsight

## The solution

Blindsight provides an audible and visual alert to the operator in the cab, and external audible alert when something enters the operating zone of the plant. This gives the operator time to react and stop before an incident occurs which increases safety around plant in high risk construction work.

The sensors are fully adjustable and can be retro-fitted to plant already being used on worksites. Data of interactions in the plant operating zone are captured, including a time stamped video and georeferenced, which can be used for knowledge sharing and quantification of risk. Additional improvements include:

- Live proximity tracking and reporting capability
- Improved 4G connectivity and application includes GPS capability
- Improved software interface and regular live software updates
- Tracks data – i.e. near miss data.

## Benefits and learnings

The Blindsight trial on the project was deemed successful noting the following:

- No people / plant or plant / plant incident occurred over an 8 month period where Blindsight was installed
- Prevented serious collision between a grader and member of public vehicle
- Sensor areas are easily adjusted to suit the work area, the blind spots of the plant, and the objects to be detected (e.g. people, vehicles)
- Provides data to quantify the level of interaction risk with objects
- Per unit cost and installation \$11,500 per machine
- Particularly suited to:
  - Plant performing frequent movements with large blind spots
  - Plant operating in large open areas.

**Program Office:** Major Road Projects Victoria  
**Work Package:** Program E - Keep Ballarat Moving  
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