

**Belcan**  
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## Case Study

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Developing a safety-critical and regulation required system for a construction equipment OEM

# Client Overview

This client is a global mining and construction equipment OEM with a significant product portfolio and focus on autonomy

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## Customer Challenge

- Client had safety concerns in regards to large mining trucks having limited visibility from the cab, especially in regards to smaller objects close to the truck
- The product development cycle-time to introduce an enhanced safety feature was too long
- Client needed to address safety concern to comply with country-of-use regulations

## Belcan Solution

- Belcan developed a clean-sheet design based on a multi-industry technology evaluation and then down-selected to a solution that was approved by the client
- Belcan was solely responsible for the development of hardware, software, wire-harness, packaging, and mounting sensors
- The system was configured, built, and tested in the lab prior to field-testing and then the team validated the system on a machine
- Finally, retrofit kits were developed for in-field installation and Belcan technicians traveled to far-flung mine sites to install and test the system

## Project Outcome

- The client successfully introduced a safety-critical and regulation required feature outside their longer product development cycle
- The end-customer met their safety requirements without having to evaluate and purchase third-party systems

See how Belcan's integrated and adaptive engineering services can work for you.

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