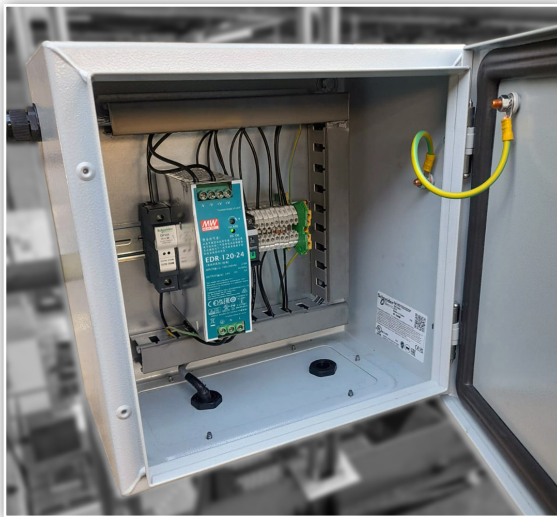


Street Cranexpress Install a Bespoke Collision Avoidance System

At Street Cranexpress, we take pride in delivering innovative and tailored solutions to enhance safety and efficiency across various industries. Our latest project stands testament in our ability to design and implement bespoke safety measures for complex working environments.

The Challenge

Our client approached us with an issue they were facing: their overhead cranes (OHCs) had the potential to collide with obstructions at gantry height. The site, where large machinery movements take place, presented numerous obstructions that posed a risk of collision with the cranes. These obstacles had the potential to disrupt operations and compromise safety.



Our Solution and Process

To mitigate these risks, Street Cranexpress engineers designed and installed a bespoke safety system featuring two strategically placed LiDAR (Light Detection and Ranging) sensors. These advanced sensors utilise a class one laser, providing a scanning range of up to 25 meters with a 270° scan angle.

Our process began with a preliminary site visit to obtain full specifications, followed by a detailed survey of each overhead crane to finalise measurements and gather information for electrical integration. Using industry-standard software, we designed the electrical system panels, which were then manufactured in our Sheffield workshop after sourcing panel enclosures, din rail & accessories, interface relays and a 24vdc power supply unit from bxx electrical wholesale.

Two LiDAR sensors were installed to detect potential obstructions, with precise zonal parameters set to define safe operational areas. The system enabled controlled crane stoppage upon detecting obstacles, preventing collisions and ensuring safety compliance, while also allowing the crane to reverse if needed.

The Outcome

The installation was completed in just two days per crane, minimising downtime for our client. With the Collision Avoidance System fully operational, the overhead cranes can now operate with increased safety and efficiency, significantly reducing the risk of collisions. The sensors actively detect obstructions and initiate a controlled stop to prevent injury or damage to plant. Following completion, the customer carried out multiple test scenarios, and feedback has been positive.



The above image demonstrates a typical LiDAR sensor zone parameter set up.

James Salter, Project Manager, commented:

“This was an interesting project to oversee from enquiry stage to completion. It enabled us to research further into the market and learn about new technologies that we can integrate into overhead crane operations. Our highly skilled project engineers ensured this process was seamless and delivered to the high standards that we set for ourselves.”

This project highlights our ability to:

- Enhance safety through innovative and effective solutions
- Deliver bespoke solutions tailored to unique operational challenges
- Showcase expertise in crane installation, maintenance, and repair
- Provide rapid deployment with minimal disruption to client operations