

# **Case Study 1 – Electromechanical**

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## ☐ Background

- Supplier obsoleted the light curtain Sensor used in Factory interface (FI)
- The light curtain is an option that is added to the FI to provide personnel safety when using an overhead track (OHT) system when used in conjunction with the “safety” outputs of the light curtain controller.

## ☐ Challenges

- Obsolete part had external Light Curtain controller, input was provided to Light Curtain controller from Light Curtain controller. But the replacement part has inbuilt controller. Since it has inbuilt controller, electrical connection changes to be done.
- Since replacement light curtain was smaller in size customized Light curtain bracket must be used to fix the light curtain in existing assembly
- New cable harness to be designed .
- New relay should be installed ;for new relay, bracket should be designed .

## ☐ Our Solution

- ☐ cable harness designed, that can used in existing assembly with some minor changes
- ☐ To fix the new light curtain in existing mounting holes ,new bracket designed ,such that ,there is no changes made on existing assembly
- ☐ Relay bracket is designed in such a way that the bracket can be fixed where the light curtain controller was previously fixed

### **Final solution**

- ☐ Replacement retrofit can be designed in such a way that customer can use the replacement part as plug and play mode.

