

# Robotic Arm

## Load Button Load Cells

Industry: Industrial Automation

### Summary

#### Customer Need / Challenge

The customer needs to lift and move delicate objects, like a glass bottle, in an automated environment with a robotic arm without causing damage to the objects that are being lifted and moved.

#### Interface Solution

Two ConvexBT Load Button Load Cells are used in the grips of the robotic arm to measure the amount of pressure being applied to the object it is lifting and moving. The DMA2 DIN Rail Mount Signal Conditioner converts the signal received from the two ConvexBT Load Button Load Cells from mV/V to volts to the PLC Controller which tells the robotic arm to stop clamping pressure when a specified amount of pressure is applied to the object.

#### Results

The two ConvexBT Load Button Load Cells accurately measured the amount of pressure applied to the object the robotic arm was lifting and moving without causing any harm or damage to the object.

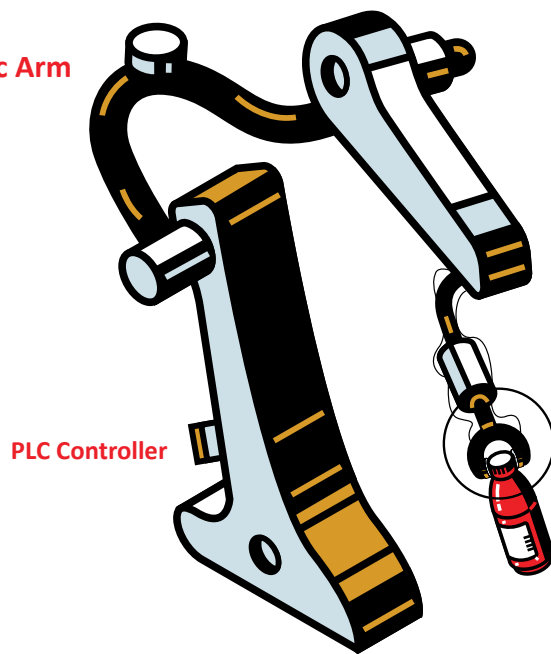
### Materials

- Two ConvexBT Load Button Load Cells
- DMA2 DIN Rail Mount Signal Conditioner
- PLC Controller

### How It Works

1. The two ConvexBT Load Button Load Cells are connected underneath a rubber grip pad on both sides of the robotic arms clamping device. When the rubber grips make contact with the object it is grabbing pressure is applied to both of the ConvexBT Load Button Load Cells a signal is sent to the PLC Controller which tells the robotic arm to stop clamping pressure based on a predetermined force of pressure.

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DMA2 DIN Rail Mount  
Signal Conditioner

ConvexBT Load  
Button Load Cells

PLC Controller