Cobot Palletizer
Torque Transducer

Industry: Industrial Automation

Summary

Customer Challenge

Collaborative robots, or cobots, are used for processing in manufacturing environments by stacking products or items onto pallets in an organized fashion either for storage, transportation, or distribution. A system is needed to measure the force and torque of the cobot arm as it picks up and lifts objects onto the pallet.

Interface Solution

Interface's Model 6A40A 6-Axis Load Cell can be installed between the robot flange and the robot's grabber mechanism. When connected to the BX8-HD44 Data Acquisition, the customer can receive force and torque measurements when connected to their control system using BlueDAQ sofware.

Results

The 6A40-6 Axis Load Cell was able to measure all forces and torques (Fx, Fy, Fz, Mx, My, Mz) and the BXB-HD44 Data Acquisition was able to log, display, and graph these measurements while sending scaled analog output signals for these axes to the robot's control system.

Materials

- 6A40 6-Axis Load Cell
- BX8-HD44 BlueDAQ Series Data Acquisition System with included BlueDAQ software
- Customer's robotic arm and control system

How It Works

1. The 6A40 6-Axis Load Cell between robot flange and robot grabber.
2. 6A40 6-Axis Load Cell is connected to the BX8-HD44 BlueDAQ Series Data Acquisition System, which collects force and torque measurement data.
3. The customer connected the BX8's analog outputs to their control system. As a result, customer is able to log, display, and graph these measurements. The results are sent to the customer's control system via analog or digital output.

Cobot

6A40 6-Axis Load Cell

BX8-HD44 BlueDAQ Series Data Acquisition System