

Planetary Sample Collecting

Multi-Axis

Industry: Aerospace

Summary

Customer Challenge

As space exploration continues to grow and evolve, more robotic systems are created to collect samples of objects and materials on planetary surfaces. Robotic arms with sampling tools need to be tested for scooping, drilling, and collecting samples.

Interface Solution

Interface's Model 6A40 6-Axis Load Cell can be installed between the flange and the sample collecting tool. When connected to the BX8-HD44 Data Acquisition, the customer can receive force and torque measurements when connected to their control system using BlueDAQ software.

Results

Interface's 6A40-6 Axis Load Cell was able to measure all forces and torques (F_x , F_y , F_z , M_x , M_y , M_z). The BX8-HD44 Data Acquisition was able to log, display, and graph measurements while sending scaled analog output signals for these axes to the customer's robot control system.

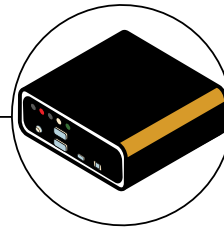
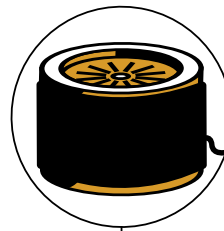
Materials

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

How It Works

1. The 6A40 6-Axis Load Cell is positioned between the flange and the grinder.
2. 6A40 6-Axis Load Cell is linked to the BX8-HD44 BlueDAQ Series Data Acquisition System, which gathers force and torque measurement data.
3. The customer connects the BX8's analog outputs to their control system. This enables the customer to monitor, log, display, and graph these measurements. The results are sent to the customer's control system via analog or digital output.

6A40 6-Axis Load Cell



BX8-HD44 BlueDAQ Data Acquisition System

