

Spacecraft Repair Robot

Multi-Axis

Industry: Aerospace

Summary

Customer Challenge

With the increase in space mission along the years, there has been a growth in ongoing developments for autonomous robots that will be tasked with repairing satellites and spacecrafts while in space. Through this R&D phase, force and torque sensors are needed through any testing operations.

Interface Solution

Interface's multi-axis sensors such as the 6ADF Series 6-Axis DIN Flange-Type Load Cells are popularly used in robotics testing. These sensors will be needed during the testing stages for these spacecraft repair robots by monitoring the movements before they are able to be deployed in space. Paired with Interface's BX8-HD44 BlueDAQ Series Data Acquisition System for Multi Axis Sensors, force feedback and torque can be displayed, graphed and recorded.

Results

Interface's multi-axis load cells were used in the research and development of spacecraft repair robots, through the testing and monitoring process of their limbs and other movements.

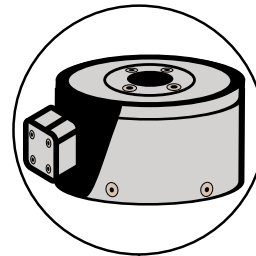
Materials

- 6ADF Series 6-Axis DIN Flange-Type Load Cells
- BX8-HD44 BlueDAQ Series Data Acquisition System for Multi Axis Sensors with supplied BlueDAQ software

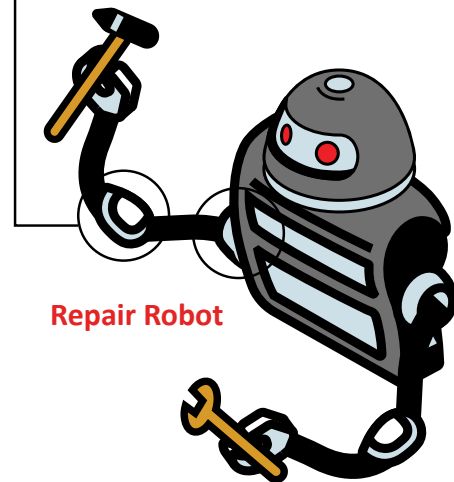
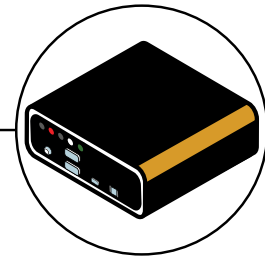
How It Works

1. The 6ADF Series 6-Axis DIN Flange-Type Load Cells are connected to the motors in the limbs, which measure any movements in the limbs of the robot.
2. During testing operations, the force data is displayed, graphed, and recorded with supplied BlueDAQ software.

6ADF Series 6-Axis DIN Flange-Type Load Cells



BX8-HD44 BlueDAQ Data Acquisition System



Repair Robot