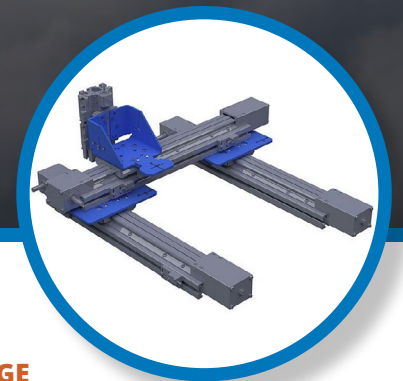


3 AEROSPACE AND DEFENSE APPLICATION USE CASES

SOLUTIONS BUILT TO MOVE IN EXTREME ENVIRONMENTS AND CRITICAL CONDITIONS

For missions that can't afford to fail, Bishop-Wisecarver's innovative motion solutions enable reliable performance no matter the environmental or application conditions.

APPLICATION STUDY #1: 3-AXIS MOTION IN WIND TUNNEL



THE APPLICATION

Designing and developing a wind tunnel with a system for calibration that could move a sensor probe across three axes in the air stream.



THE SOLUTION

Bishop-Wisecarver application engineers helped select and size the right LoPro® actuators to create a multi-axis solution that was both easy to assemble and robust enough to handle wind forces.



THE CHALLENGE

When extended into the tunnel, the axes would be exposed to strong external wind forces. Additionally, base actuators needed to carry linear actuators for the other two axes, requiring both high load and long length capacities.



THE RESULTS

An expertly designed actuation system that extended the capabilities of the calibration unit in a custom-built wind tunnel.



APPLICATION STUDY #2: COATING REMOVAL GANTRY



THE APPLICATION

Removing paint and other coated materials from an aircraft by blasting the surface with plastic particles using a robotic arm.



THE CHALLENGE

Not only did the application axes need to carry 3-4 tons each, but they also had to withstand debris from the blasting operation.



THE SOLUTION

Working closely with the customer, Bishop-Wisecarver developed customized LoPro motion systems to fit the heavy-duty gantry robot mount.



THE RESULTS

A custom solution built to last, even under heavy loads and in environments with harsh debris.



APPLICATION STUDY #3: MOUNTED DETECTION SYSTEM



THE APPLICATION

Detecting command wires and wiring systems used to remotely detonate or trigger buried explosives and other threats.



THE CHALLENGE

The high-stakes operation required a durable sensor system capable of traversing tough terrain and withstanding severe environmental conditions.



THE SOLUTION

LoPro components optimized performance to move the sensor system reliably across varying terrain under challenging conditions, including wet surfaces.



THE RESULTS

A low-maintenance, long-life solution.

To ensure the success of high-stakes aerospace and defense projects, motion systems must be reliable, durable, and often application specific. Bishop-Wisecarver engineers understand the exacting requirements of aerospace and defense motion solutions and work closely with customers to develop the right solution for the job.

YOUR MOTION SOLUTIONS PARTNER FOR MISSION-CRITICAL PROJECTS

For over 70 years, Bishop-Wisecarver has created innovative solutions for the toughest challenges. Let's build a solution for your unique aerospace and engineering needs.

[GET STARTED NOW](#)