



Applied Motion
SYSTEMS

AEROSPACE AUTOMATION

Motion control and machine safety
for programs measured in decades



The Challenge

**Aerospace tooling outlives the programs
it was built for.**

Tolerances are tighter than most industrial sectors, and the same fixture often has to support multiple aircraft configurations across years of production. Every axis of motion near a wing, fuselage, or fastener installation is also a safety question, where a controls failure creates real risk alongside downtime. The equipment itself is built to outlast the aircraft generation it started with.

[READ OUR AEROSPACE CASE STUDIES](#)

Key Capabilities

- Large-scale multi-axis assembly cell motion control and coordinated machine safety architecture
- Legacy platform retrofits, including Gemcor riveters and actuator test stands
- Test stand and qualification system design for dynamic and vibration conditions
- Functional safety architecture that scales with axis count, engineered from the first drawing
- Aerospace supply chain manufacturing equipment: fastener production, cabin component assembly, induction hardening
- Siemens Simatic/Simotion and Rockwell platform expertise, deployed to fit the program
- In-house engineering, panel fabrication, and FAT under one roof at our Vancouver, WA facility

300-Axis Coordination

300 coordinated axes. One wing bond cell. A space the size of a football field. AMS delivered the motion control and safety architecture for Boeing's 777X program.

Boeing Gold Performance Excellence Award

Earned for automating the wing-body join process on the 737 program.

Boeing Qualified Tooling Supplier

RC-0846/D6-51991, including an approved DPD process — a qualification Boeing reviews and grants directly.

***No proprietary retrofit package —
same engineering discipline for a
decades-old Gemcor riveter or a 300-
axis bond cell.***

Most aerospace controls problems have a mechanical root cause. We start with the drivetrain and safety envelope before we touch the code.