



Complex
Motion.

Simple
Control.

Complex Motion. Simple Control.



Automation1 — the world's most user-friendly motion control platform — helps users quickly solve their most challenging precision motion applications. Automation1 can, in many situations, help users reduce the set up time for complex projects from days to minutes.



The Automation1 motion control platform includes:

Software-Based Machine Controller (iSMC)

The iSMC runs on a real-time operating system, generates 20 kHz servo motor trajectories and 100 kHz galvo scan head trajectories, and enables custom machine interfaces that work with application programming interfaces (APIs) from other vendors.

Motion Development Kit (MDK)

The MDK reduces system setup time, allows users to develop advanced programs with the modern AeroScript programming language and deploys custom user interfaces for Windows and Linux PCs.

HyperWire® Motion Control Bus

Fiber-optic and light-based, HyperWire enables 20 times the throughput possible with 100 BASE-T Ethernet. The bus simultaneously connects the iSMC to multiple servo motor, galvo scan head, and piezo nanopositioning drives. Each drive can transmit data at peak capacity even when the bus is fully populated.

Intelligent Industrial PC (iPC)

The iSMC is installed on the Automation1 iPC or other qualified industrial PCs. Alternatively, the controller can be installed directly on a servo motor drive.

Drives

A complete range of Automation1 drives is available and compatible with virtually any type of hardware or motor.



AUTOMATION1 iSMC

Drives for Servo and Stepper Motors

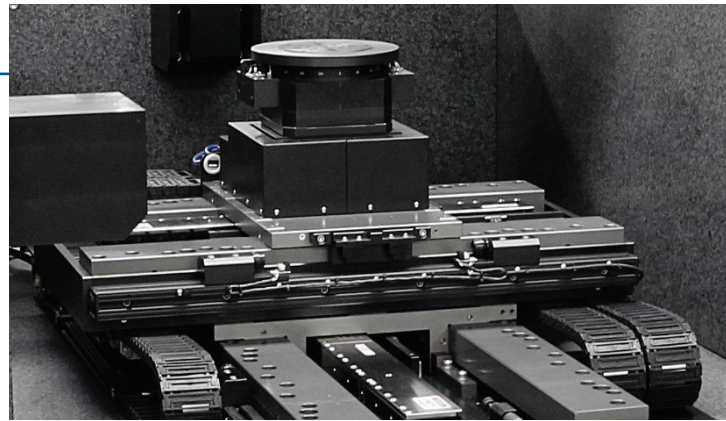
Drives are available for a wide range of servo and stepper motors.



Drives for Precision Mechanics

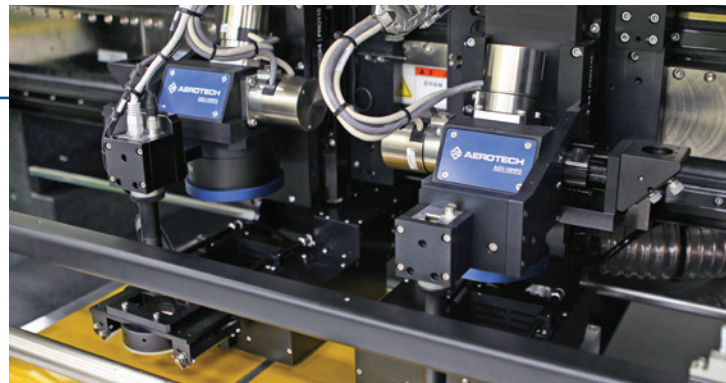
Single-axis and multi-axis drives are available to control virtually all precision mechanics, including:

- Linear stages
- Rotary stages
- Spindles
- Actuators
- XY stages
- Hexapods
- Gantry
- Goniometers
- Gimbals
- Split bridge systems



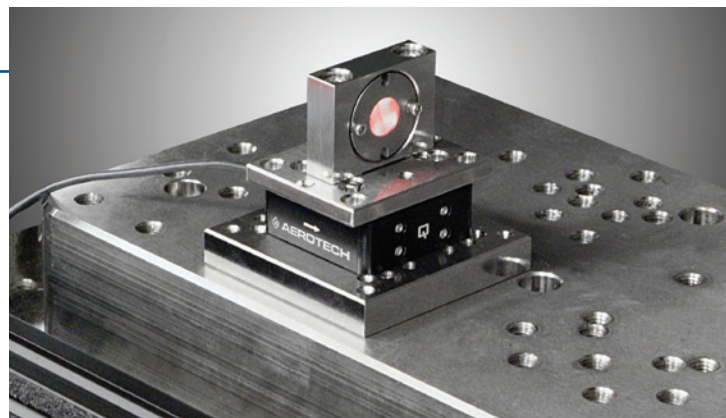
Drives for Laser Systems

Faster lasers require faster motion. The Automation1 GL4 galvo scan head controller is the industry's fastest controller of galvanometer motors. The GL4 drives Aerotech's two-dimensional and three-dimensional scan heads as well as five-axis laser micromachining systems.



Drives for Piezos

Highly precise and dynamic, Automation1 piezo drives include high-resolution capacitance feedback and high levels of output current. Powerful development and trajectory generation tools enable you to do more with piezos.





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