

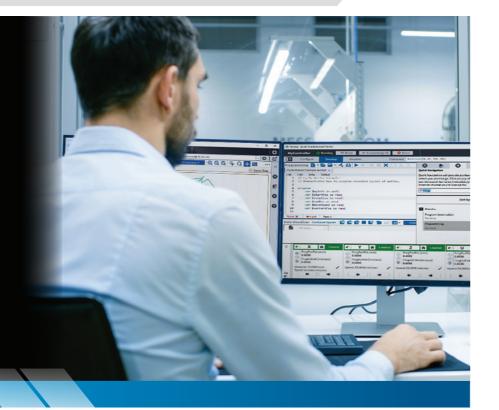


Complex Motion. Simple Control.

# **Complex Motion. Simple Control.**

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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<sup>®</sup> 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.

## 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
  Hexapods
- Rotary stages
  Gantries

Goniometers

Spindles

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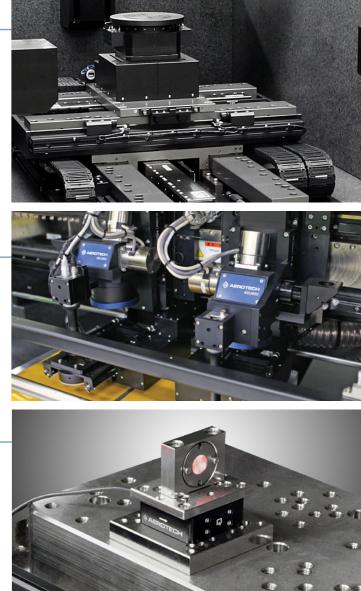
- Actuators Gimbals
- XY stages
  Split bridge systems

#### **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 twodimensional 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.







## WORLDWIDE FULL-SERVICE LOCATIONS

#### **Global Headquarters (United States)**

Aerotech Inc. 101 Zeta Drive Pittsburgh, Pa. 15238-2811 +1-412-963-7470

## United Kingdom

Aerotech Limited The Old Brick Kiln Ramsdell, Tadley Hampshire RG26 5PR UK Phone: +44 (0)1256 855055

#### Germany

Aerotech GmbH Gustav-Weißkopf-Str. 18 90768 Fürth Germany Phone: +49 (0)911 967 9370

#### Taiwan

Aerotech Inc., Taiwan Branch 5F, No. 496 Bannan Road, Zhonghe District New Taipei City, 235 Taiwan Phone: +886 (0)2 8751 6690

#### China

## Aerotech Motion Control Products (Shanghai) Co. Ltd.

Room 101-3, Building B, No.1687 Changyang Road, Yangpu District Shanghai City, China 200090 Phone: +86 (21) 5508 6731

#### Singapore

Aerotech Automation Pte. Ltd. Block 211, Woodlands Ave 9 #04-85 Singapore 738960 Phone: +(65) 9773 2112

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