

A Broad Array of Products for Centralized Motion Control

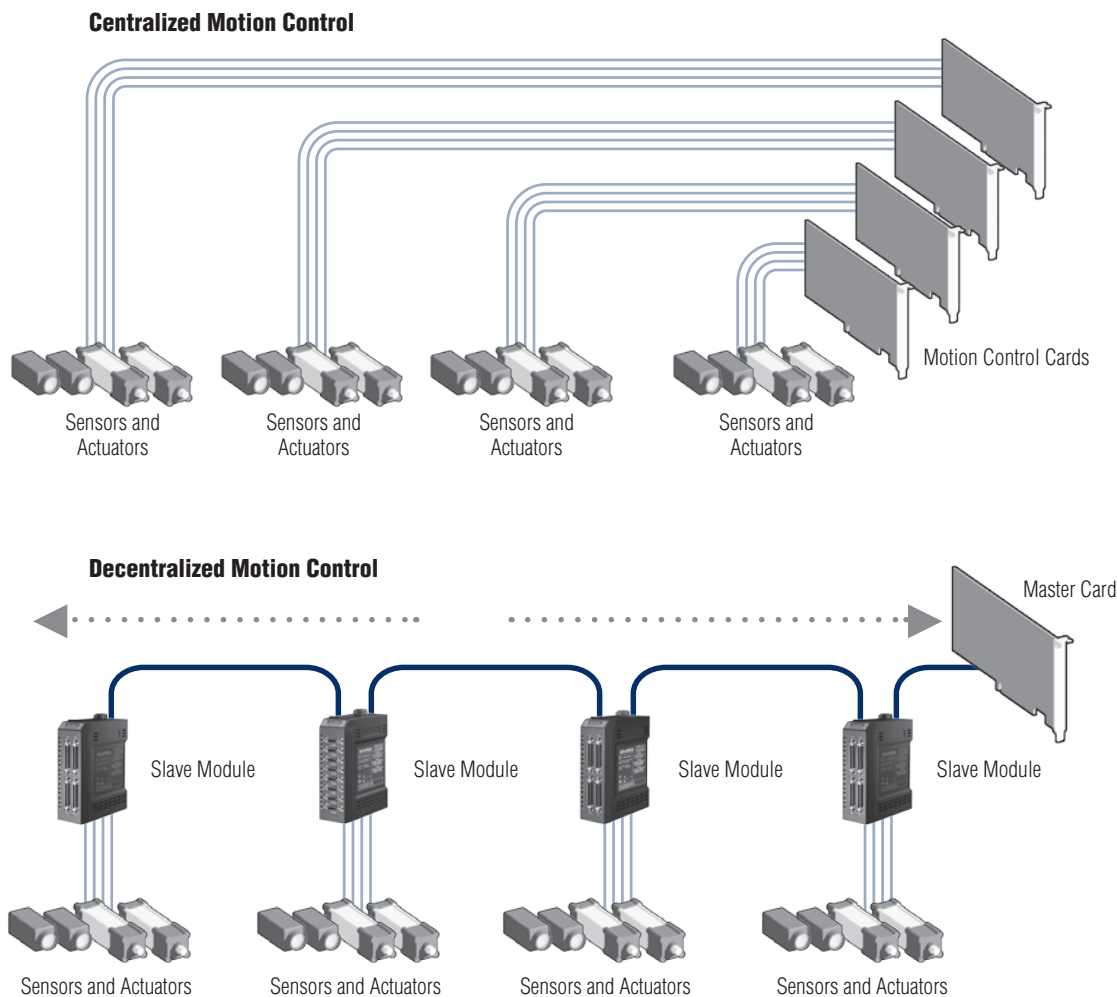
Advantech's full product offering can accommodate all your motion control needs. You can choose from 3-axis and 4-axis controllers, pulse-output or voltage-output, ISA-bus-based or PCI-bus-based, and standard PC-based or embedded in a system. The functions of the motion cards also vary, from high-end 3-axis circular interpolation cards to low-cost point-to-point motion devices. And if you cannot find a controller to meet your exact requirements for an embedded motion controller, then Advantech can design one to your specifications. We are ready to build cost-effective controllers to meet your criteria, whether it be adding digital I/O channels or changing connector styles, or perhaps changing CPU grade. With all the inherent costs, time and risks involved, there's no reason why you should design your own controller when you can instead rely on the expertise, cost-efficiency, experience and proven reliability of Advantech.

The Differences Between Centralized & Decentralized Motion Control

Machine control system architectures generally fall into two categories - centralized or decentralized. In a centralized system, all control loops including logic, trajectory generation, and PID control, are executed on a single processor on a programmable automation controller (PAC). In a decentralized system, the trajectory generation and logic control executes in the central processor, but the PID control loop is executed in the intelligent slave module. A decentralized approach gives more processing power, while it reduces overall wiring cost and system complexity.

The Decentralized Motion Control Products are categorized in two groups - Master Cards and Slave Modules. Communication between master and slave is based on a custom-engineered technology based on RS-485, which saves wires, transmits over long distances at high speeds, and has time-deterministic features.

The communication interface between master and host PC is based on memory mapping. Various functions can be chosen on the slave modules, and the industrial DIN-rail mountable design makes it easy to distribute them in the field. The master card collects information from slave modules and publishes the data to its host PC, and vice versa.



- 1 Automation Software
- 2 Touch Panel PC
- 3 Industrial Panel PC
- 4 Industrial Monitor
- 5 Fanless Box PC
- 6 Ethernet Switch
- 7 Device Server
- 8 Serial Comm. Card
- 9 DAQ
- 10 Signal Conditioning
- 11 USB DAQ
- 12 Motion Control I/O
- 13 PC-based Controller
- 14 PAC
- 15 RS-485 I/O
- 16 Ethernet I/O
- 17 Building Automation
- 18 Video Surveillance

