



Four-Axis Motion Control Development Platform

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GMD Series four-axis motion control development platforms is specially designed and manufactured by Googol Technology Ltd for demonstrating various motion types of Googol's motion controllers. In general, there are four types of model: AC servo model, DC servo model, step motor model and the model with 2 AC motors and 2 step motors. They are able to demonstrate the futures of most popular motion controllers and meet the requirements in technique development, testing and teaching various kinds of motion control systems.



System Characteristics

- Compact structure, the relative movement of each motor can be reflected visually from the relative axis
- Visual C developed software with source code
- Specific input signals of each motor are simulated through the button switch on the front panel in order to test the response of the control system to each input signal
- Specific output signals and 16 universal output signals are shown visually by the indicator lights on the front panel
- 16 universal digital input signals are simulated through flipping the switches, easy and quick to be operated
- 8 independent analog input signals and 2 auxiliary encoder input signals
- Motion control software provided by Googol Technology can perfectly meet the needs of motion control system development

Experiments and Research Content

Fundamental Experiments

- Motion controller foundation experiment
- Motor and drive (operation) experiment
- DC motor experiment (velocity loop step response identification experiment, displacement loop PID adjustment experiment)
- Single-axis motor motion control experiment
- 2D interpolation principle and realization experiment
- CNC code programming experiment

Research Works

- Open-architectural motion control technology research
- Multi-axis complex interpolation algorithm research
- Multi-axis synchronous control technology research
- Motion control application software development
- CNC system soft PLC technology research







Technical Specification

Items		Description
Structure		Plat shelf style
Motion accuracy (Pulse/Revolution)	AC servo	10000
	DC servo	1600
	Step motor	720
Number of control axis		4
Specific analog input signals of each axis (optic-electrical isolation)		Positive and negative limit, origin point, servo alarm, etc
Specific analog output signals of each axis (optic-electrical isolation)		Drive activation, drive resetting
Universal analog I/O (optic-electrical isolation)		16/16
Dimension (L x W x H)		500 mm x 500 mm x 1200 mm

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Ordering Guide

Model	Model Name	Description
GMD4001	Four-axis AC servomotor motion control development platform	◆ AC servomotor demo platform
		◆ GT-400-SV motion controller
		◆ Motion control function library and demo software for Win98/2000/NT 
GMD4002	Four-axis DC servomotor motion control development platform	◆ DC servomotor demo platform (4 DC motors)
		◆ GT-400-SV motion controller
		◆ Motion control function library and demo software Win98/2000/NT 
GMD4003	Four-axis stepping motor motion control development platform	◆ Stepping motor demo platform
		◆ GT-400-SG motion controller
		◆ Motion control function library and demo software Win98/2000/NT 
GMD4004A	Composite motion control development platform	◆ Development platform equipped with 2 AC servomotors and 2 stepping motors
		◆ GT-400-SV motion controller
		◆ Motion control function library and demo software Win98/2000/NT 
GMD4004D	Composite motion control development platform	◆ Development platform equipped with 2 DC servomotors and 2 stepping motors
		◆ GT-400-SV motion controller
		◆ Motion control function library and demo software Win98/2000/NT 
GMD4005	AC/DC Composite motion control development platform	◆ Development platform equipped with 2 AC servomotors and 2 DC Servo motors
		◆ GT-400-SV motion controller
		◆ Motion control function library and demo software Win98/2000/NT 

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