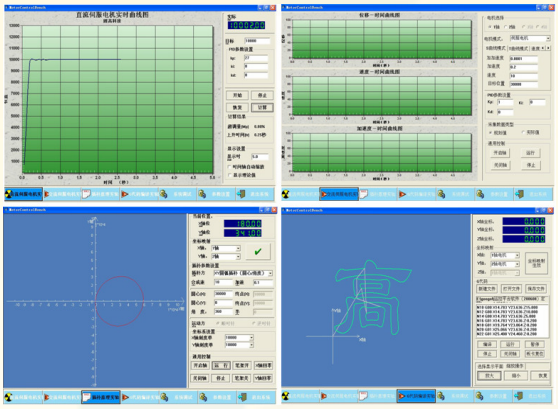
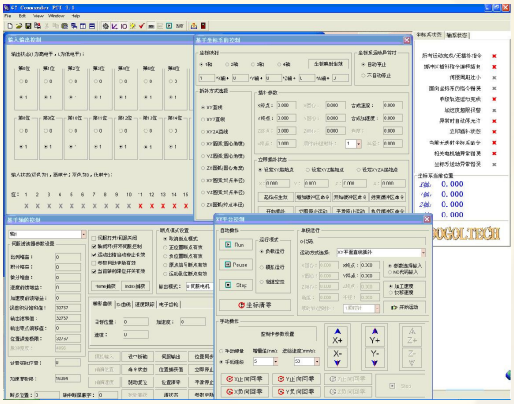
XY Table and Linear Modules

Overview

The XY table and linear modules are the basic parts of various CNC and electronic manufacturing equipments. They are also general purpose platform for scientific research, application development and educational experiments. The Googol GXY Series XY tables and Linear Modules, which are tailored made for manufacturers and technical institutes, is based on modularized design and industrial manufacturing standard, and is widely used in various areas of CNC and precision position control equipment research and development such as welding, dispenser, bonding, drilling, packing etc. They are also widely used in universities and colleges for advanced research and teaching in the area of mechantronics, computer control system, mechanical engineering and CNC technology, etc.

Control & Experiment Software Interface





Main Features

- **Modularized Design**

✓ Modularized design of mechanical body, users are able to configure different motors and axis number to set up their individual application system or experimental platform.

✓ Experiment software is developed based on the modularization principle. Experiments and application modules are configurable according to the real application system.

- **Industrial Standard Design and Manufacturing**

✓ Adopt high-precision ball screw and roller slide way

✓ All-in-one aluminium extruded sections base

✓ Manufactured in ISO9002 system

- **Open Architecture**

✓ Open control system based on PC and DSP motion controller.

✓ DOS and DLL function libraries applicable in Windows environment (such as VC, VB and Dephi)

✓ Open source XY table experiment software.

✓ Detailed experiment textbook, covering every design and realization aspects of the mechatronic system. User can select relevant contents freely to meet the teaching and experiment needs for various courses.

- **Creativity**

✓ Configurable experimental platform.
✓ Development of application systems to meet the industry needs.

Control System and Software Features

- Realize single-axis motor various motion modes control (S-curve, T-curve, speed mode, electrical gear mode) and 2-axis interpolation or synchronized control.
- Abundant visualization graphical interfaces, display the motion parameter (velocity, acceleration and positon) curves and the simulation and actual motion trajectory of the platform in real time.
- According to the educational experiments requirement of individual user, the experimental modules can be flexibly configured and thus to facilitates the educational experiments and research works greatly.

Experiment and Research Contents

- **Basic Experiments**
  - ✓ Motion control system basic experiment
  - ✓ Motion control system PID control
  - ✓ Motor and driver experiments
  - ✓ Single-axis motion planning
  - ✓ 2D interpolation principle and application
  - ✓ XY table motion control
  - ✓ NC code programming
- **Research Experiments**
  - ✓ 2D motion control application system development
  - ✓ 2D trajectory interpolation algorithm research
  - ✓ NC code interpreter development and research
  - ✓ XY table high-accuracy tracking control

Technical Specifications

a. XY Table（Unit: mm）

Model	Distance route		Base size			Table size			Load (N)	Resetting accuracy	Setting accuracy
	X	Y	L	W	H	L	W	H			
GXY-2020	200	200	450	450	184	240	254	15	600	±0.03	0.05
GXY-3030	300	300	550	550	184	240	254	15			

b. Linear Module（Unit: mm）

Model	Distance route	Length	Base size		Table size		Load (N)	Resetting accuracy	Setting accuracy
			L	W	L	W			
GX-200	200	~578	450	250	240	254	1000	±0.03	0.05
GX-300	300	~678	550	250	240	254			

- The above platforms are all equipped with positive and negative limit switches. Penholder or drawing device are optional for teaching use.
- Technical specifications and structure of special purpose 3D NC platform can be customized.

Ordering Guide

Model Number	Model Name	Description
GXY2020GT4B GXY3030GT4B	2D step XY table	● P1-grade accuracy mechanical body ● GT-400-SG motion controller + Two-axis step electrical control module ● Automatic penholder ● Experiment software in Windows
GXY2020VD4B GXY3030VD4B	2D DC servo XY table (Close-loop)	● P1-grade accuracy mechanical body ● GT-400-SV motion controller + Two-axis servo electrical control module ● Automatic penholder ● Experiment software in Windows
GXY2020GP4B GXY3030GP4B	2D AC servo XY table (Open-loop)	● P1-grade accuracy mechanical body ● GT-400-SG motion controller + Two-axis servo electrical control mode ● Automatic penholder ● Experiment software in Windows
GXY2020VP4B GXY3030VP4B	2D AC servo XY table (Close-loop)	● P1-grade accuracy mechanical body ● GT-400-SV motion controller + Two-axis servo electrical control module ● Automatic penholder ● Experiment software in Windows

Please contact us to order other model of XY table and linear modules.

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