Specification

Multi-joint Robot Controller

○Yes --No △Optical

Product Specifications of the Controller

Spec.	Model		TP3000	RD8800
Hardware	Storage		SD Card (1G)	CF(1G) +SD(1G)
	Monitor		7"TFT LCD Touch screen	
	Operation Panel		40 buttons	
	Emergency Stop		1	
	Safety Switch		2-stage switch (Standard) / 3-stage switch (Optional)	
	Communication Cord		8m (Standard) / 5,6 m (Optional)	
	Knob		For use with software functions	
	Communication Interface	USB	USB HOST(2.0)	
		EtherNET	10BASE-T/ 100BASE-TX	
		CIO	Serial Communication I/O. Expandable with LNC serial communication I/O cards, max: 128 input points/ 128 output points.	
	Servo Interface	D1	M-II	
		D2	RTEX	
		D3	EtherCAT	
		D5	PULSE	
	Power Supply	System Power	AC 100V/240V 50/60Hz	
		I/O Power	DC 24V(above 4A)	

Peripherals Selection

Spec.	Model		R8800 6-axis Fieldbus	RD8800 2-joint Robotic Arm	R7800 4-axis Fieldbus	R8200 6-axis Pulse	R7200 4-axis Pulse
Hardware	Main Selection	TRF6632	○	○	○	○	--
		SIOA1730	○	--	○	--	--
		SIO1630A	--	--	--	--	○
		SIO2500D3	--	--	--	○	
		ELC 2318D3	--	○	--	--	--
	Servo Control	D1 M-II	△	--	△	--	--
		D2 RTEX	△	--	△	--	--
		D3 EtherCAT	△	○	△	○	--
		D5 Pulse	--		--	--	○
Optional Accessories	Spindel Axis (Max.)		6+3	(6+3)x2	4+3	8	5
	ETS3000 IO Expansion Module		D3 only		D3 only	△	--
	SIOA1760 IO Board		△		△	△	--
	SIOA1700 IO Board		△		△	△	--
	SIOA1732 IO Board		△		△	△	--
	SIOA1632 IO Board		--		--	--	△
	DAQ1550 AIO Expansion Module		D3 only		D3 only	△	--

Peripherals Specification

Spec.	Model	SIOA 1760 For D123	SIOA 1730 For D123	SIOA 1732 For D123	SIOA 1630 For D5	SIOA 1632 For D5	SIOA 1700	ETS 3000	SIO 2500D3	DAQ 1550
Input Voltage		DC24.0±10%								
Max. Current		1.5A								
Input Point		16	21	32	21	32	22	16 (DI Module)	20	4
Input Spec.		IN point mode	Optocoupler input ; DC 24V							12Bbits±10V
			NPN / PNP							
Output Point		16	24	24	24	24	16	16 (DO Module)	20	(1) 2-4 channels (2) 2 channels
Output Spec.		Relay	Transistor type output (VoL)	Transistor type output (VoL)	Relay/ Transistor type output (VoL)	Transistor type output (VoL)	Transistor type output (VoL)	Transistor type output (VoL)	Transistor type output (VoL)	(1) 16Bbits±10V DAC (2) 5V/24V PWM

Intelligent Machines Information & Intelligence

Comprehensive Upgrade of Smart Machinery

Besides of the hard core technology of precision and processing speed, the developing trend of the modern machinery is to integrate smart functions to upgrade machine to intelligent machinery. The key technologies include integration of sensors, intelligent accessories and IoT. LNC Technology provides powerful product integration control capabilities to bring modern smart machinery and more efficient manufacturing process come true.

LNC Technology Co., Ltd.

Service & Support : +886-0800-561888 ; service@LNC.com.tw

LNC Technology CO.,Ltd

40764 6F., No.633, Sec. 2, Taiwan Blvd., Xitun Dist., Taichung City 407, Taiwan
Tel: +886-4-23106859
Fax: +886-4-23105936

LNC DONG GUAN CO.,LTD.

Building 3, LINK International Business Park, No.96 Kechuang Road, Nancheng District, Dongguan, Guangdong, China 523000.
Tel: +86-769-88786162 | +86-769-81309173
Fax: +86-769-88781100

More Information

LNC Enable intelligent machines

LNC Technology Co., Ltd
Controller Business Group

SENSOR

INDUSTRIAL ROBOT

LNC SCADA

MULTI-JOINT ROBOT

Support Various Protocols | Build-in Working Methods
High Efficiency; High Performance | Intelligent Sensor

www.LNC.com.tw Service@LNC.com.tw

Product Series

LNC Robotic Control Systems

Fieldbus-based robotic control systems is the foundation to implement Industry 4.0

LNC introduced a full range of fieldbus-based robot controllers for articulated and cartesian coordinate robots as well. The product series supports the most widely used communication protocols, including MECHATROLINK-II, RTEX and EtherCAT, which get customers prepared for the new era of industry 4.0.

Product Series

TP3000

RD8800

Support Robot Type

Delta

Scara

6-axis Articulated

Co-robot

TP3000 Teaching Box (Host integrated)

R8800 6-axis Fieldbus	R7800 4-axis Pulse	R8200 6-axis Fieldbus	R7200 4-axis Pulse

Product Peripherals

EtherCAT to DA Output (4 Channels)

EtherCAT to 6+2 Axis Pulse

SIOAI700 I/O Extension Board

SIOAI760R I/O Extension Board

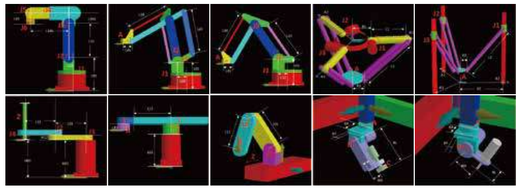
EtherModule

Software

Software Function

Support Various Types of Mechanisms

LNC 3D Builder simulation software that supports multiple forms of mechanism 3D Builder is a robot virtual control software developed by LNC. In addition to supporting the current standard mechanisms, if users have self-developed hardware or need to work with special mechanisms, they can use LNC 3D Builder for programming and motion simulation first, and then wait until all program actions and paths are confirmed. The machine performs real machine actions.



Usage

1 Complex motion path or high precision requirements

2 New or special mechanism design

3 Multi-device collaboration

STEP1

Set the parameters of each part of the mechanism

STEP2

Generate virtual mechanisms

Peripheral equipment: workbenchs, warehouse, workpieces... etc.

STEP3

Import program to the robotic controller

Software

Software Function

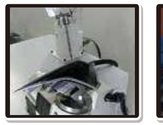
CAD/CAM Integration

- Built-in 2D CAM.
- The bottom layer uses G Code. Use the 3D workpiece surface processing program produced by CAM.
- Can save dedicated Robot CAM.

External Axis Control

- When commanding the additional axis, just command the coordinates of UVW.
- G1 X100 Y-100 Z100 A0 B30 C20 U70 V45 F2000

- **G1 :** Rectilinear Motion
- **XYZABC :** Coordinates of body
- **UVW:** Coordinates of additional axis
- **F :** Speed



Support Multiple Protocol

- **COM :** Mainly used for pulse absolute protocol.

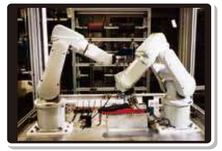
- **Modbus :** Provide 485/422.

- **Network :**
  Commonly used Modbus protocol, commercially available PLC communication protocol, vision protocol, string protocol... etc.
- **Server :**
  COM Modbus, TCP Modbus, String Server. Parameters can be set directly on the screen without ini file setting.
- **Visual :**
  The communication string can be set on the screen, and the format of the return data has been stipulated by the standard.

Dual-arm Robot

- **Maximum number of axes supported :**
  The dual system can support two robot bodies, the total number of axes can reach (6+3)X2=18 axes. 6 single body axes + 3 additional axes.

- **Dual system and dual channel :**
  It can control two independent bodies at the same time, which is suitable for the development of dual-arm robots, dual-robot collaboration or the integration of robot arms and other equipment. Through a single controller to control dual channels, it can save hardware space and cost, improve data processing and calculation efficiency, and greatly reduce the time for maintenance and troubleshooting.



Expandable Ccommand Sets

- Apply to “program export” function to integrate “teaching program”, “ templates”, “matrix” and “NC file” in the same program for operation, or according to requirement to write G code by Macro language.

Home Correction

- When under a complete organization condition, the function provides robot to reach 1mm of absolute precision.

Coordinate System

- The workpiece is set up on one or more moving and rotating platforms for use.

Advance-system

Advanced Functions

Handling

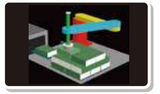
RM8800 series products apply to carry industry such as dynamic pick and place, as well as matrix stack. Digital multiaxial control (Maximum 9 axis). Industry dedicated functional setting page. Carry procedural programming executive function.

Matrix

Matrix function is capable of accomplishing picking and placing action in order to have fastsequence.

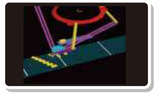
Palletizing

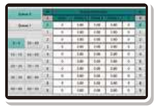
Through setting the layout of templates, the stacking can be built quickly.



Dynamic Synchrony

Apply to the dynamic follow instruction, according to the result of SmartCCD to reach dynamic pick / place function.





Handling

Spray

RS8800 series standard controller of spray coating machine, which apply to spray coating industry, and it is divided into fixing spray and tracking coating. IP65 level protection is provided, which increases the durability design such as waterproof, Anti-shock and dustproof. In addition, built-in MPG is offered for meeting requirements of easier operation and higher safety.

Spray

Built-in Templates

Built-in templates make path setup easier than ever.

Synchronous Spray

Using follow instruction to compose the complicated process of following spray.

Multiple Robots Collaboration

Multiple spraying robots follow the same conveyor belt at the same time.

Welding

RW8800 Series Welding Robot Controller, which apply to welding industry. The controller includes welding art bag to reach the diversity requirements such as dot correction, arc welding, spot welding, and welding bead tracking, and it supplies diversity welding machine’s integration interface for further.

Collaboration

Support multi-dimensional path.

Reservation

Start processing friendly and quickly.

Position Finding & Tracking

With digital welding machine, laser camera to achieve a straight line, Arc tracking, position finding, arc tracking and other functions.

Welding

Polishing

RF8800 series of polishing robotic controller can apply to polishing, finishing and gluing industries. The control system emphasizes the convenience of space teaching, which offers arc space function to decrease teaching point; it provides tool / workpiece transposition calculation function for adapting the situation when robot is clamping, to reach the purpose of speedy teaching and reduce program point.

Arc Space Function

Polishing & Punch

Punch

The RP8800 series controller of pressing robot, which applies to multi-process press application industry. It supports the discharge type of the press machine, turnover machine and self-turnover. Built-in application templates help fast implementation. Signal page helps grasping IO handshaking for convenience.

Robotic Punching Machine