DESKTOP ROBOT

TOYO 2019
JTB Series

New
Released

3-Axis Series Automated Dispensing Robot !!

Desktop Robot
JTB Series

Stepping Motor

Max.Stroke X500mm Y500mm Z100mm

Max.Speed 850mm/s

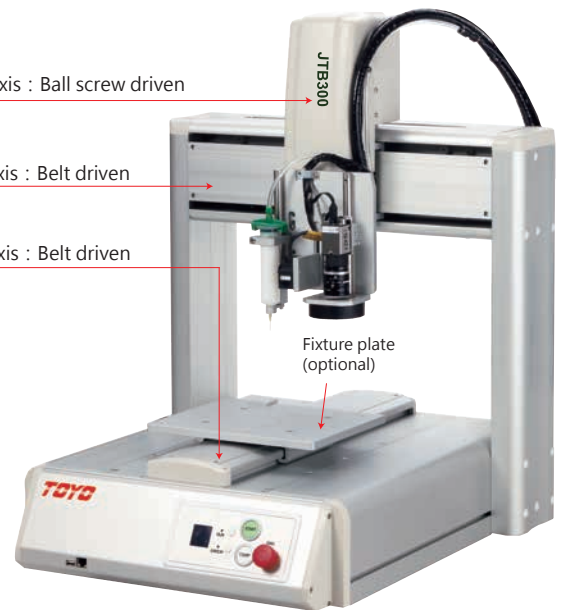**Max.Payload** X:15kg Z:7kg

Points 30000

Controller TSC400

Input Voltage AC110V/220V

◆ Max. Speed is up to 850 mm/s.

◆ Repeatability ± 0.01mm.

◆ New Type 500D for double X axes to increase production efficiency.

Z axis : Ball screw driven

Y axis : Belt driven

X axis : Belt driven

JTB300

Fixture plate (optional)

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◆ Increased Structural Rigidity

· Ball Screw is applied in Z axis.

· Faster, more precise, with greater structural rigidity for long-term, dependable use; increased stability for high speed tracking function.
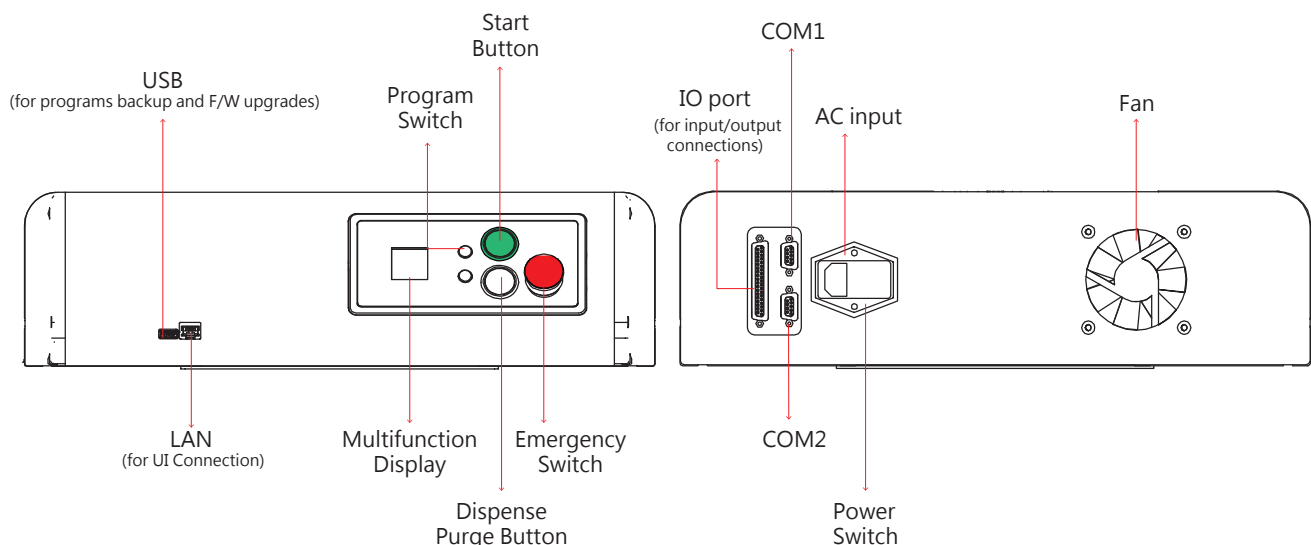
◆ Multi Software Functions

· Import image file into the software convert to a program is capable.

· Import DXF file into the software convert to a program is capable.

· CCD camera adjustment function. (option)

· Editing path and pallet by using software wizard.

◆ Communication Port

· Input/Output: 16/16

· USB port
for programs backup and F/W upgrades

· Multifunction display

· COM1/COM2

· EMG、Start、Dispense Purge buttons

Operation Panel Diagram

USB
(for programs backup and F/W upgrades)

Program Switch

Start Button

COM1

IO port
(for input/output connections)

AC input

Fan

LAN
(for UI Connection)

Multifunction Display

Emergency Switch

Dispense Purge Button

COM2

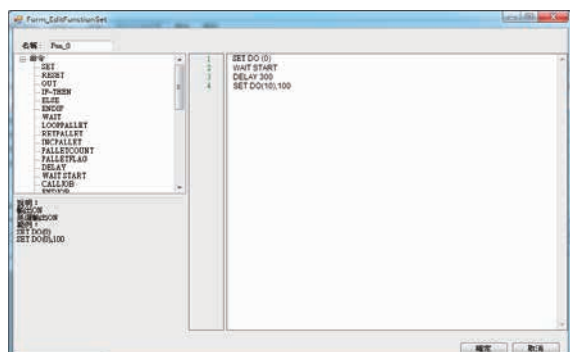Power Switch

◆ Software Functions — Quick teaching

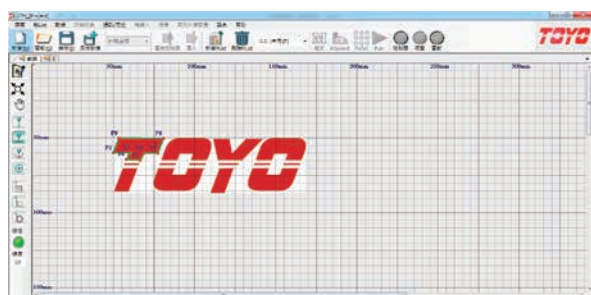*Robot with dispensing unit attached.*

Transfer DXF to teaching points

- PC user interface brings DXF files and image files, into the editing domain and make user to draw points, lines, circles and circular arc.

- The simple scripter is built-in allowing the unit to easily coordinate with external devices on its own. (Maximum capacity 100 programs with 1,000 steps per program.)

- Point setting using background image data referencing.
  You can complete path setting off line and then upload online.

Various Dispense Commands

- Click the icon of dispensing command to enter the associated command at a numbered address in a program.

Convenient fill-in dispensing functions which allow you to dispense like drawing a picture using only 2 points for a rectangle and 3 points for a circle.
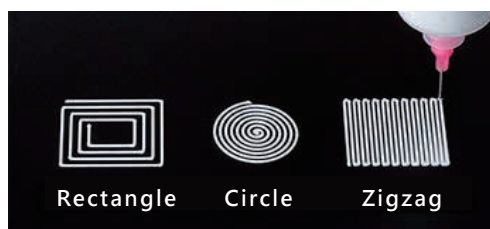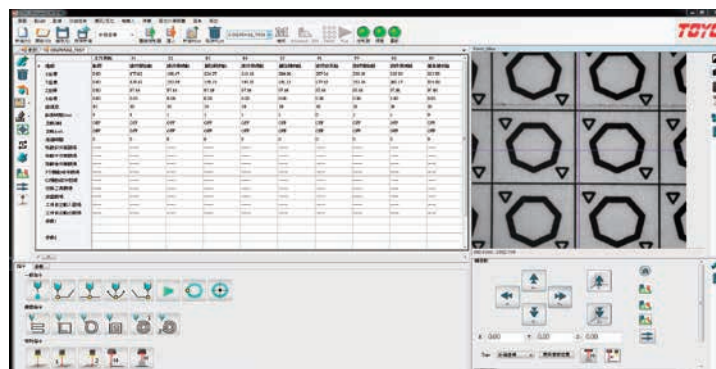

- Easy Program Teaching : You can conduct teaching just by inputting the items you need, such as positions and parameters.

CCD & Laser Sensor Automatic Calibration
(option)

- Automatic calibration function : Enhanced CCD and laser sensor functions to match the needs of assembly equipments aiming for finer precision.

Rectangle   Circle   Zigzag

Specifications

Model			JTB200	JTB300	JTB400	JTB500	JTB500D
Operating Range	X/Y axis	(mm)	200/200	300/300	400/400	500/500	500/500 (Double X Axes)
	Z axis	(mm)	100	100	100	100	100
Maximum Portable Load	X axis	(kg)	8	15	15	15	X1:10 ; X2:10
	Z axis	(kg)	4	7	7	7	7
Maximum Speed[1] PTP Movement setting range %	X and Y axes	(mm/s)	700(7~700)	900(9~900)	900(9~900)	900(9~900)	900(9~900)
	Z axis	(mm/s)	250(2.5~250)	400(4~400)	400(4~400)	400(4~400)	400(4~400)
Maximum Speed[1] CP Movement setting range %	X, Y and Z Synthesized speed	(mm/s)	600(0.1~600)	850(0.1~850)	850(0.1~850)	850(0.1~850)	850(0.1~850)
Repeatability[2]	X/Y axis	(mm)	±0.01	±0.01	±0.01	±0.01	±0.01
	Z axis	(mm)	±0.01	±0.01	±0.01	±0.01	±0.01
Dimensions/Weight	W×D×H	(mm)	497×454×672	597×554×672	697×654×672	797×754×672	797×754×672
	Weight	(kg)	33	41	51	61	61

Common Specifications

Drive Method		5 phase pulse motor drive
Control Method		PTP (Point to Point) control, CP (Continuous Path) control
Interpolating Function		3-dimensional linear and arc interpolation
Point Input Method		Remote teaching (JOG)/ Manual Data Input (MDI)
Teaching Method		UI Software (PC)：brings DXF files into the editing domain and allows you import image files to draw points
		APP(PAD)：Ponit teaching and simple programing editing
Screen Display	Languages	English‧Chinese‧Japanese.
	Units	mm
Program Capacity		100 programs (1~100)
Data Capacity		10,000 Points
External Input/Output	IO	16 IN / 16 OUT (NPN/PNP sharing)
	LAN	Ethernet for UI (also can connect external device via HUB)
	COM	RS-232C (for external device control)
	USB	F/W upgrade I programs backup
Power Source	(V)	AC 100~240, 5A
Operating Ambient Temperature	(°C)	0 ~ 40 ℃
Operating Relative Humidity	(%)	20 ~ 90 (Non-condensing)

Note：
*1、Maximum speed cannot be achieved when the robot is bearing its maximum portable load.
*2、Repeatability will be infulunced by environment temperature and humidity. Position repeatability is not a guarantee of absolute precision.

Exterior

JTB200   JTB300   JTB400   JTB500   JTB500D

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