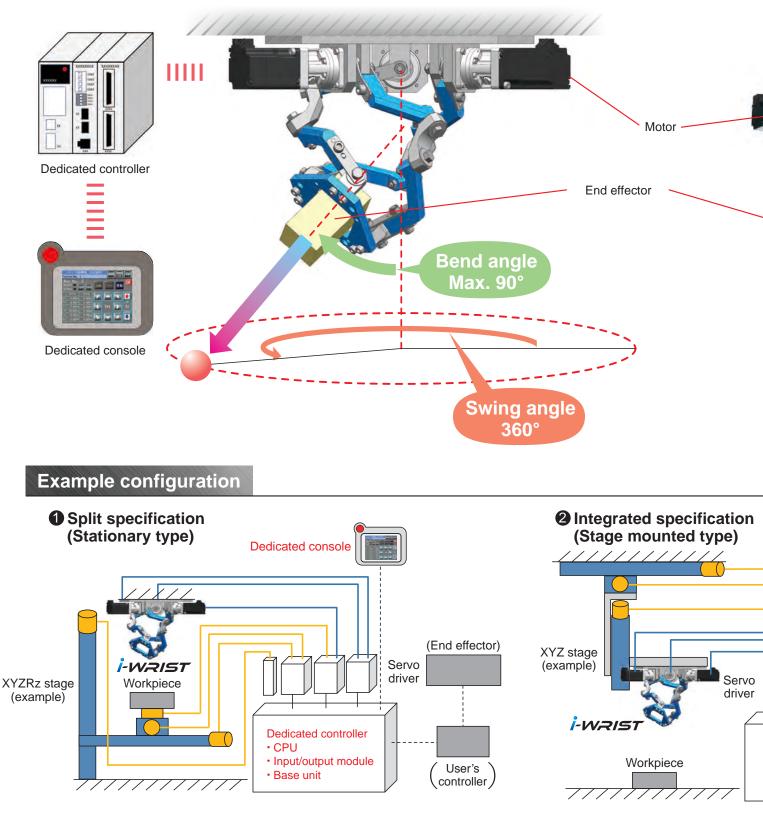


Wrist Joint Module i-WRIST<sup>™</sup> <sub>CAT.No.6511/E</sub>



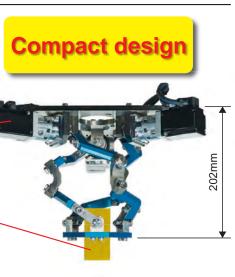
# Approach workpieces from various angles! Wrist Joint Module i-WRIST™

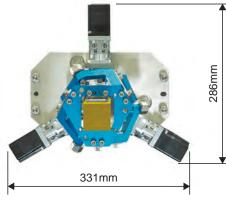
#### Model diagram of system components

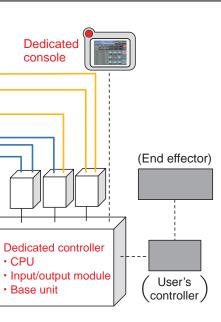


- \* Inquire separately for other configurations.
- \* Components in red are supplied by NTN. Inquire separately for other components.
- \* One dedicated console can control multiple devices.
- \* By customer to arrange the end effector, user's controller, XYZRz stage and workpiece.









#### **Features**

#### Approach target positions from various angles! 1

- Wide operating range: maximum bend angle 90°, swing angle 360° (free)
- Coordinated operation combining the XYZ stage and rotation (Rz) stage.
- Compact layout.

### 2 Outstanding productivity!

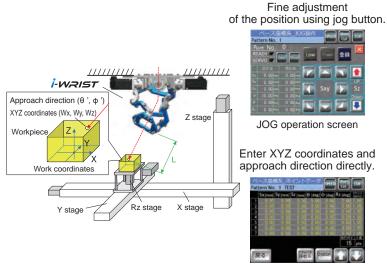
- Able to move to a specified point **in the quickest time**.
- Equipped with automatic speed calculation algorithm (vibration suppression when stabilized).
- Layout with end effector mounted within link mechanism.

#### **3** Quick changeover time and adjustments!

Intuitive teaching process based on XYZ coordinates.

- Intuitive and easy-to-use dedicated console.
- Cables routed within link mechanism. (prevents cables becoming twisted after repeated swing motions)
- Save multiple operating patterns.

#### Main operation setting functions



Coordinates input screen

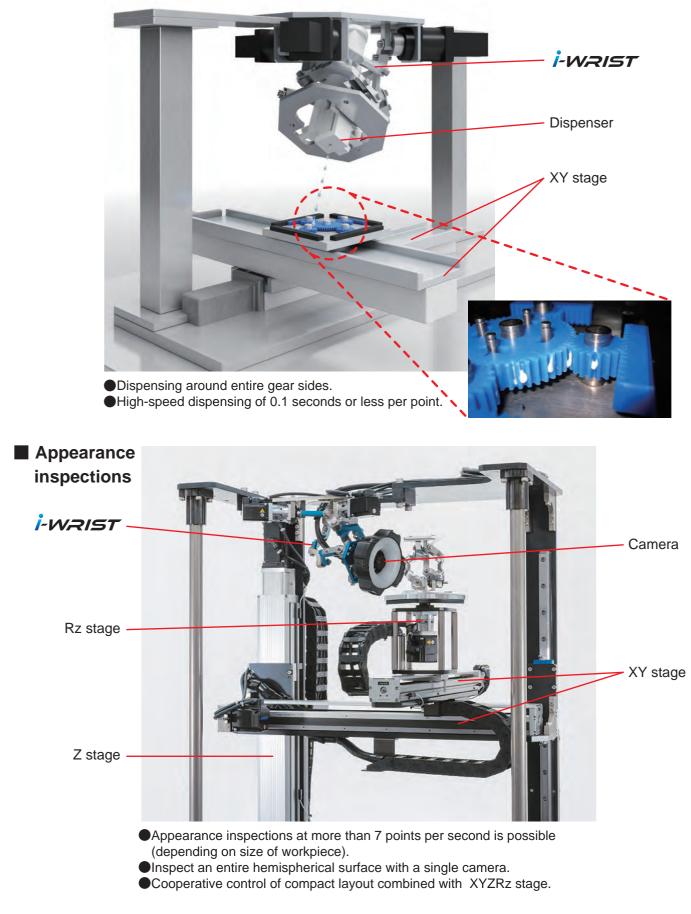
- Operating conditions, motor gain and other settings can be configured.
- JOB code" can be output to user's controller for each position, Using this "JOB code" users can set operations for each position with user's controller.

Data of registered points can be edited and saved on a PC.



Dedicated console

#### Liquid dispensing (grease, adhesive)



Other applications: welding, coating, cleaning, assembly, etc.

## **Specifications**

ltem	Content					
Wrist Joint Module i-WRIST™			90° bend angle type	45° bend angle type		
	Size (W×D×H)			331 × 286 × 202mm	388 × 335 × 191mm	
	Mass (kg)		5.4	8.0		
	Degrees of freedom		2			
	Operating range	Bend angle	(°)	90	45	
		Swing angle (°)		360 (free*1)		
	Weight capacity (kg)		1.0			
	Repeated positioning accuracy (°)		±0.05			
	Control mode		PTP (Point to point) control, continuos pass control			
Dedicated controller	Size: W65 x D110 x H130 mmAttached unit: I/O unit (input: 32 points, output: 32 points)Rated voltage: DC 24 V $\pm 20\%$ Controlled object*2: i-WRIST <sup>TM</sup> X stage, Y stage, Z stage, Rz stage (up to 4 axes)					
Dedicated console*3	Display device: CRated voltage: DMass: 0.		: Colo : DC : 0.96	W115.2 × L86.4 mm Color LCD DC 24 V ±20% 0.96 kg or less 50 patterns (1 pattern: 100 points)		
External interface	Parallel input/output		<ul> <li>: input signals</li> <li>EMG stop, Reset, Break, Console ON, Enable SW, Start, Pause, JOB complete, CHG Pattern No., DATA 0 to 6, Servo OFF</li> <li>: output signals</li> <li>Error, Ready, Busy, Complete, Move complete, Low battery, Reset, Pattern No. complete, DATA 0 to 6, Point 0 to 6, Trigger, JOB Code</li> </ul>			

\*1: Swing operations can be repeated in the same direction.

\*2: Inquire separately for control target stage configurations.

\*3: One dedicated console can control multiple devices with same specifications.

#### What is i-WRIST™

"i-WRIST" is NTN Trade Mark created from combination of "i" (intelligent, innovative, interesting) and "WRIST" (referring to a human wrist).

See a video of i-WRIST in action



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