

Suitable for manual assembly line

Vision Guided Screw Driving Robot

Breakthrough to automation.

Vision system will correct inaccurate screw driving position.

1 Correct max. 10mm misalignment

Max. 10 mm misalignment can be corrected to less than 10% of nominal screw diameter. (Applicable from M3 to M5 screw.)

Ideal for rough positioning applications such as stacked work piece, sheet-metal frame work and injection molded plastic body work. Also good for manual assembly line which has rough fixture.

2 Cycle time saving algorithm (Note)

No need to take picture & correct ALL points. It only takes picture of 1 to 3 points, and remaining points will be calculated automatically. Resulting in cycle time saving.

(Note) Available only for flat tightening surface.



Example of machine configuration.
(SR580Y0-Z-VR1B)

Specification

[] : Option

Type	VR1A	VR1B	VR2A	VR2B	VR3A	VR3B
Resolution	350,000pixels		350,000pixels		350,000pixels	
Camera measuring distance (Note1)	150~200mm				150~200mm	
Measuring area	Approx.30×30mm		Approx.30×30mm		Approx.30×30mm	
No. of registered scenes	8 (Note2)		32 (Note2)		1,000	
Lighting	Integrated lighting, 【External ring lighting】				External ring lighting	
Monitor	【Dedicated monitor】				【Dedicated monitor】, or can use general-purpose monitor	
Camera Z axis stroke (Note3)	—	100mm	—	100mm	—	100, 200mm
Screw driver Z axis stroke (Note1)	50~200mm				50~200mm, 【250~400mm】	

(Note1) Camera measuring distance and Screw driver Z axis stroke will vary related to nominal screw diameter.

(Note2) Need PC and vision software for camera tuning.

(Note3) Z axis teaching can be done by teaching pendant. But when replace camera, PC is necessary.

(Note) Accuracy of correction may vary by picture condition (such as work surface condition, color and brightness of surrounding area), screw specification and robot specification(screw driver Z axis stroke and Y0 stroke).
It will be needed to add the ring lighting system which is option or to change the type of model in accordance with the shooting condition. Please contact us for details.

(Note) Calibration of vision system is necessary when distance between screw driver and camera is changed.
Refer to existing catalog for specification of screw driving robot.

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