

## FANUC Robot M-1*i*A

### FEATURES

FANUC Robot M-1*i*A is a light weight and compact high speed assembly robot.

- Light weight and compact mechanical unit enables to install to narrow space. Free angle installation is also acceptable.
- Two models are available to meet variety of applications.
  - FANUC Robot M-1*i*A/0.5A  
3 axes wrist (robot total 6 axes) type. Flexible wrist motion is suitable for assembling.
  - FANUC Robot M-1*i*A/0.5S  
Single axis wrist (robot total 4 axes) type. High speed 3000 deg/s wrist is suitable for picking.
- Unique parallel link mechanism enables quick motion.
- Selectable installation type of no stand, desktop stand and ceiling mount. It makes easy integration into a machine.
- A camera for *i*RVision (integrated vision) can be integrated in the mechanical unit.



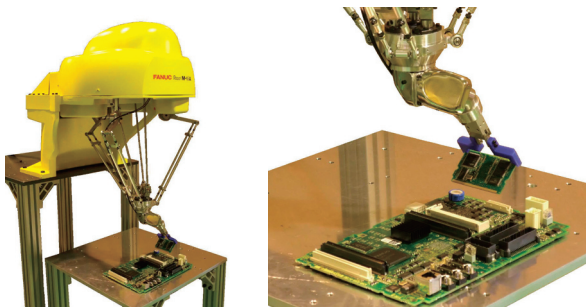
### Application system



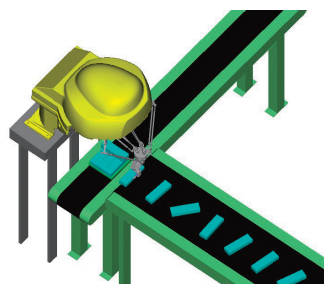
Keyboard assembling



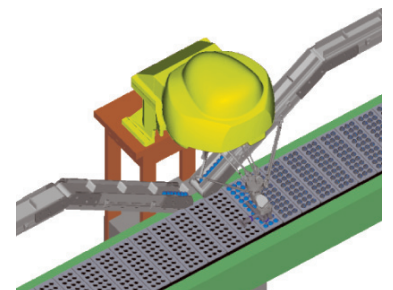
Screwing



Circuit board insertion



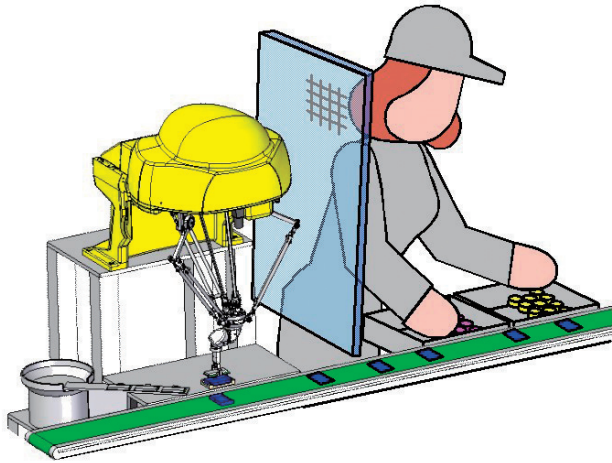
Contact lens product packaging



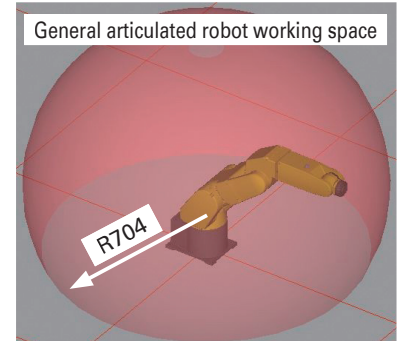
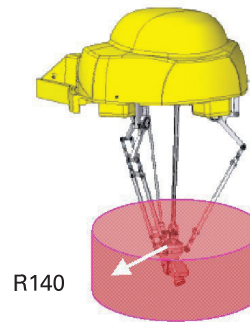
Set lens on the LED illuminator

# Compact, Flexibility and high speed

## Space saving

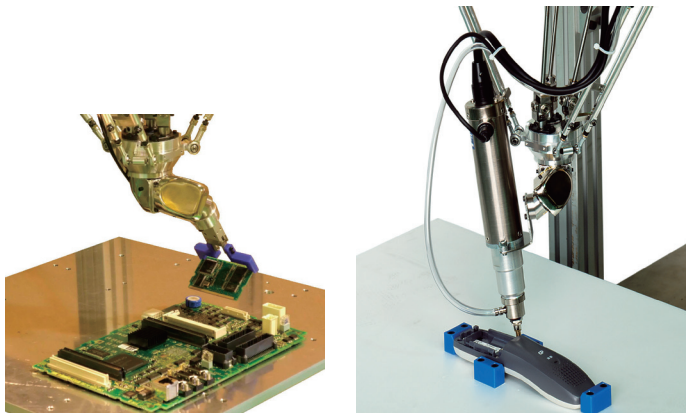


Work envelope is closed around operation object so that the total installation space can be minimized. It enables to place the robot and the worker along the manufacturing line effectively.



## Complex assembling

The new six axes parallel link configuration enables complex assembling application.

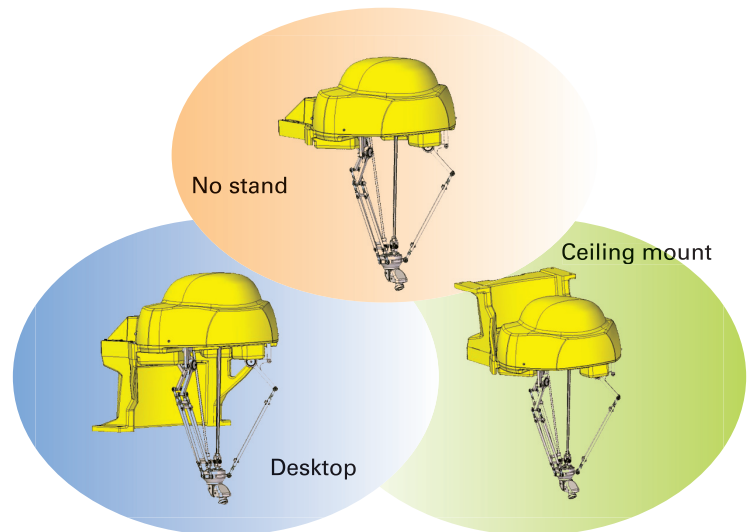


Circuit board insert

Telephone assembling

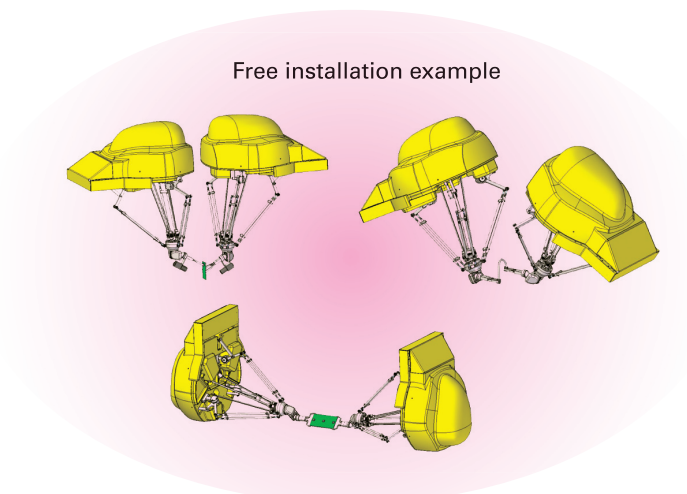
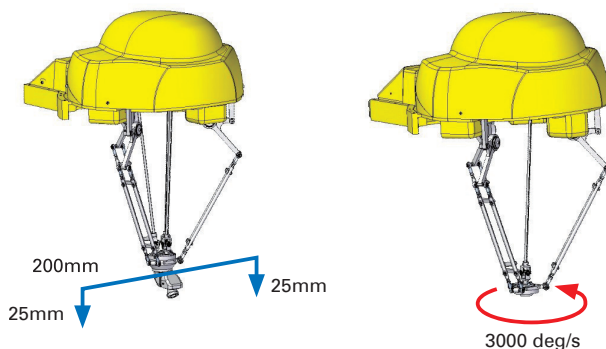
## Free installation

The stand is selectable and reversible. It increases flexibility for the robot integration into a machine. The robot installation direction can also be free.



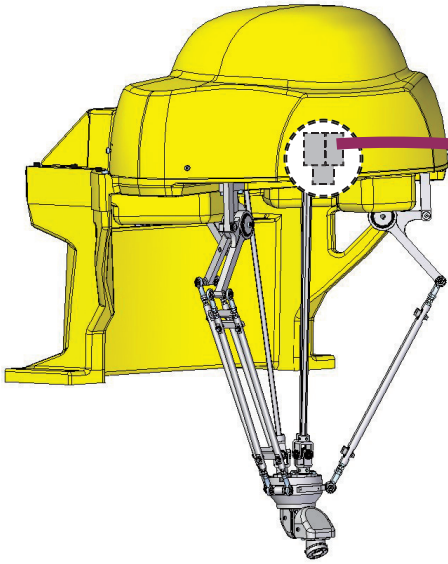
## High speed motion

The high speed motion increases productivity. 25-200-25mm pick and place motion time is 0.3 s. The rotation axis of four axes type rotates 3000deg/s. It enables to change the work pieces direction quickly.



# Intelligence

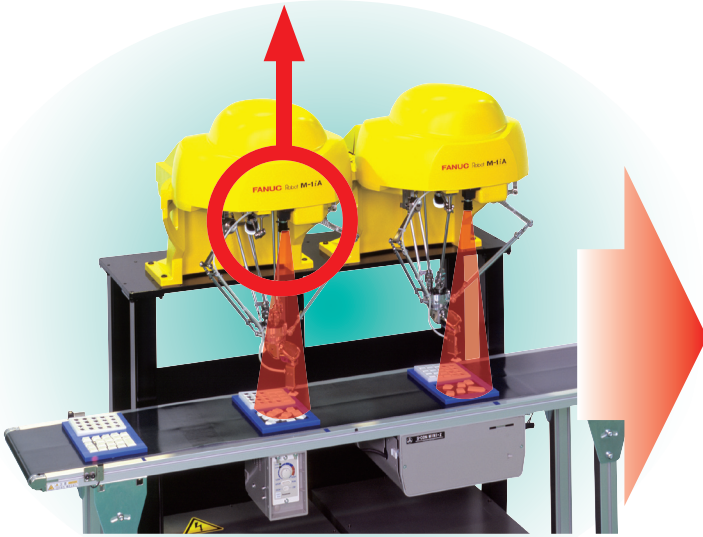
## Integrated Vision



A camera for *i*RVision(integrated vision) can be integrated in the mechanical unit.(option)

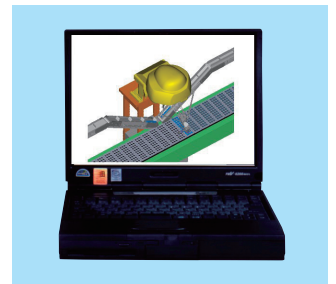
Integrated hardware without PC realizes high reliable image processing.The image can be monitored on *i*Pendant.

Tight integration between vision and robot functions enables advanced robot control.



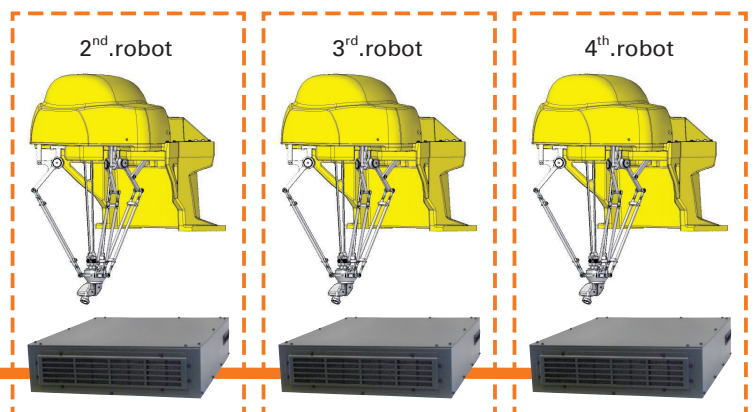
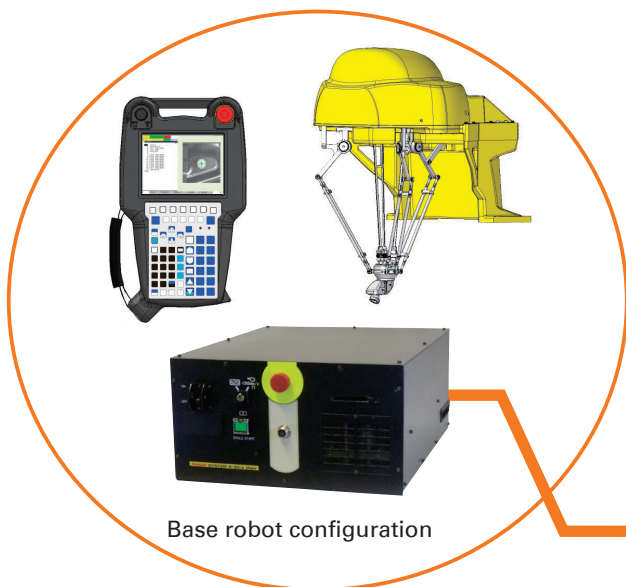
## ROBOGUIDE

ROBOGUIDE provides offline programming/ teaching/ editing,verification of operation with animation, and accurate cycle time simulation promptly in virtual environment.



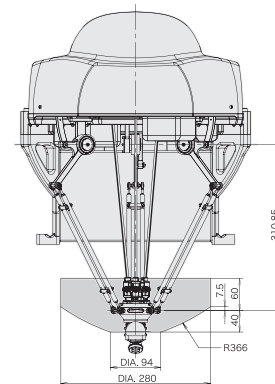
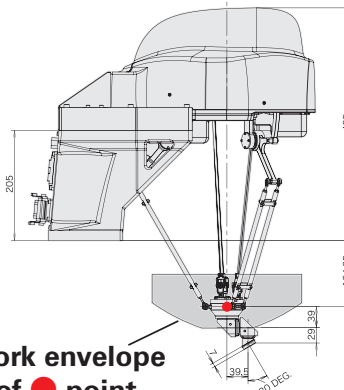
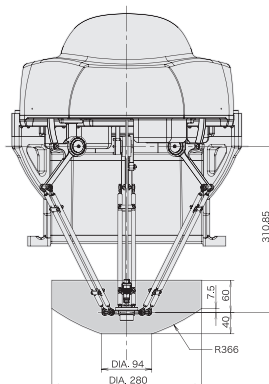
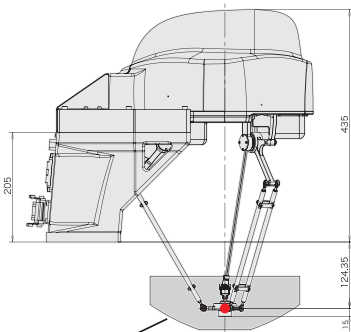
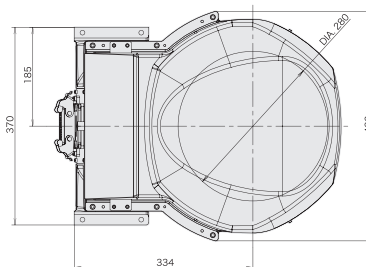
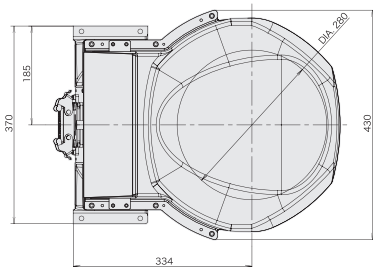
## Configuration

The controller can control maximum four robots. Additional robots configuration is very simple, such as mechanical unit and amplifier box combination.



## M-1iA/0.5S

## M-1iA/0.5A



Work envelope  
of ● point

Work envelope  
of ● point

## Specifications

Item	Specifications	
	M-1iA/0.5S	M-1iA/0.5A
Type	Parallel link mechanism	
Controlled axes	4axes (J1,J2,J3,J4)	6axes (J1,J2,J3,J4,J5,J6)
Installation	Floor and ceiling mount	Floor, angle and ceiling mount
Motion range (Maximum speed) (Note1)	J1-J3	Diameter 280mm, height 100mm
	J4	720°(3000°/s) 12.57 rad (52.34 rad/s)
	J5	300°(1440°/s) 5.24 rad (25.13 rad/s)
	J6	720°(1440°/s) 12.57 rad (25.13 rad/s)
Max. payload at wrist	0.5kg(1kg with an option)	
Repeatability	±0.02mm	
Drive method	Electric servo drive by AC servo motor	
Mass (Note2)	14kg	17kg
Installation environment	Ambient temperature : 0~45°C Ambient humidity Normally : 75%RH or less (No dew, nor frost allowed) Short term : Max.95%RH or less (within one month) Vibration : 0.5G or less	

Note 1) In case of short distance motion, the axis speed doesn't reach maximum one. Note 2) In case of "No stand"

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