

FANUC

# ROBOT

GENERAL CATALOG



# Solve Your Labor Shortages With FANUC Robots!



65 years of experience with CNC and more than 45 years of experience with industrial robots.  
More than 1 million robots shipped worldwide.

## High Reliability

- In-house design and manufacture (mechanical arms, servo motors, controllers, software and sensors), with thorough testing.



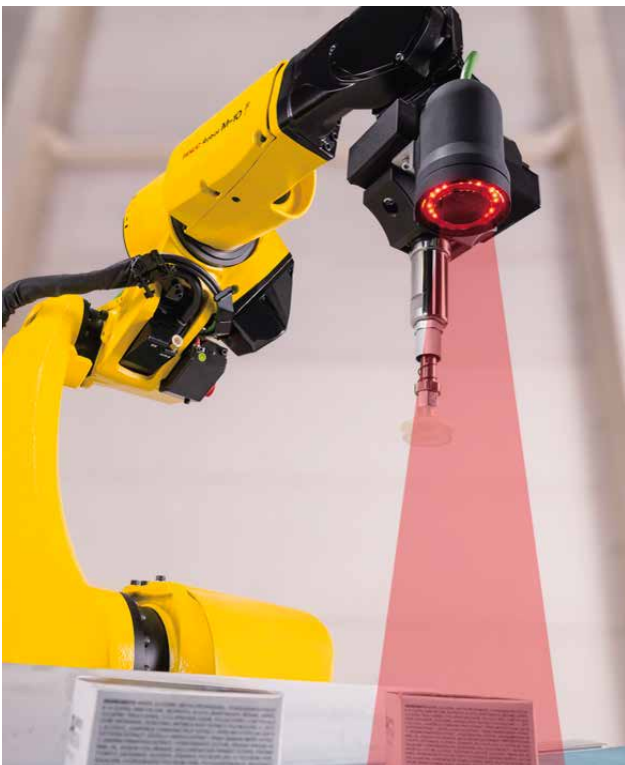
## Easy to use and Safe Robot

- Intuitive and Easy to use even for novice users.
- Safely stops with light force.
- Easy installation.



## AI robot to solve labor shortage

- No additional hardware, easy to use integrated robot vision.
- FANUC supports for both robots and vision.
- Reduce jig and equipment costs with FANUC robots.



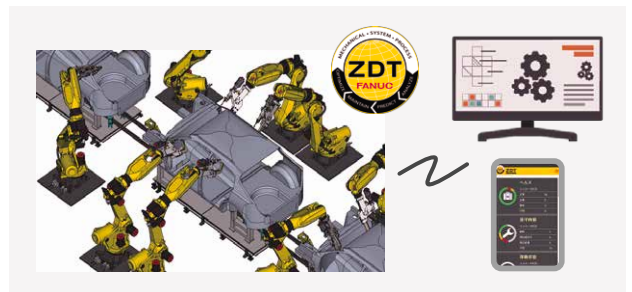
## Visualize designs with ROBOGUIDE

- Layout design and robot programming.
- Highly accurate simulation.
- Review the robot system with VR goggles.



## Utilize ZDT to save manpower for maintenance

- Zero downtime with failure prediction.
- Process status monitoring and traceability.
- Notification of optimal maintenance timing.



# FANUC Robot Lineup



## Collaborative Robot

FANUC Robot CRX		CRX-5iA	CRX-10iA	CRX-10iA/L	CRX-20iA/L	CRX-30iA	
	Controlled axes			6			
	Max. payload at wrist	5kg	10kg		20kg	30kg	
	Motion range(X,Y)	994mm, 1988mm	1249mm, 2498mm	1418mm, 2836mm		1756mm(30kg payload mode), 3778mm 1889mm(25kg payload mode), 3778mm	
	Repeatability	±0.03mm		±0.04mm		±0.05mm	
	Mass	25kg	40kg		41kg	135kg	
	Installation	Floor, Upside-down, Angle					
	Matching controller	R-30iB Mini Plus					
	Application	Handling, Assembling, Arc welding					
	FANUC Robot CR		CR/50F-16B				
		Controlled axes	6				
Max. payload at wrist		50kg					
Motion range(X,Y)		1643mm(50kg payload mode), 3266mm 1831mm(35kg payload mode), 3266mm					
Repeatability		±0.03mm					
Mass		386kg					
Installation		Floor					
Matching controller		R-50iA(A-Cabinet)					
Application	Handling, Assembling						

R-30iB Mini Plus

## SCARA Robot

FANUC Robot SR		SR-3iA	SR-3iA/H	SR-6iA	SR-6iA/H	SR-12iA	SR-20iA
	Controlled axes	4	3	4	3	4	4
	Max. payload at wrist	3kg		6kg		12kg	20kg
	Motion range(X,Y)	400mm, 800mm		650mm, 1300mm		900mm, 1800mm   1100mm, 2200mm	
	Stroke(Z)	200mm		210mm		300mm(option: 450mm)	
	Repeatability	J1+J2 axis J3 stroke J4 axis		±0.01mm		±0.01mm	
	Mass	±0.004deg.	-	±0.004deg.	-	±0.005deg.	
	Installation	19kg	17kg	30kg	28kg	53kg	64kg
	Matching controller	R-30iB Compact Plus					
	Application	Handling					
	FANUC Robot SR		SR-3iA/C	SR-6iA/C	SR-12iA/C	SR-3iA/U	
	Controlled axes			4			
	Max. payload at wrist	3kg	6kg	12kg		3kg	
	Motion range(X,Y)	400mm, 800mm	650mm, 1300mm	900mm, 1800mm		350mm, 700mm	
	Stroke(Z)	200mm	210mm	300mm(option: 450mm)		140mm	
	Repeatability	J1+J2 axis J3 stroke J4 axis		±0.01mm		±0.01mm	
	Mass	±0.004deg.		±0.005deg.		±0.004deg.	
	Installation	21kg	32kg	56kg		27kg	
	Matching controller	R-30iB Compact Plus					
	Application	Handling, Clean room					Handling

R-30iB Compact Plus

## Delta Robot

FANUC Robot DR		/05-3A-6X	/05-3A	/05-4A-6X	/05-4A	
	Controlled axes	6	4	6	4	
	Max. payload at wrist	0.5kg(option: 1kg)				
	Motion range(X,Y)	φ280mm, 100mm		φ420mm, 150mm		
	Repeatability	±0.02mm				
	Mass(without stand)	17kg	14kg	20kg	17kg	
	Installation	Floor, Upside-down, Angle				
	Matching controller	R-50iA Mate				
	Application	Handling, Assembling	Handling	Handling, Assembling	Handling	
	FANUC Robot DR		/3-8A	/3-11A	/6-14A	/12-14A-3X
		Controlled axes	4			
Max. payload at wrist		3kg		6kg(option: 8kg)		
Motion range(X,Y)		φ800mm, 300mm	φ1130mm, 400mm	φ1350mm, 500mm		
Repeatability		±0.03mm				
Mass		130kg		160kg	155kg	
Installation		Upside-down				
Matching controller		R-50iA(A-Cabinet), R-50iA Mate				
Application	Handling					
FANUC Robot DR		/6-12B Stainless		/8-16B		
	Controlled axes	4				
	Max. payload at wrist	6kg		8kg		
	Motion range(X,Y)	φ1200mm, 450mm		φ1600mm, 500mm		
	Repeatability	±0.03mm				
	Mass	250kg		170kg		
	Installation	Upside-down				
	Matching controller	R-50iA(A-Cabinet), R-50iA Mate				
Application	Handling					





M-800/60-20B

R-1000/80-22A

R-2000/210F-27C

R-2000/165R-31C

R-2000/210F-26D Hollow

R-2000/270F-27C

M-900/360-27B

M-910/700F-28B

## Small/Medium Size Robot

FANUC Robot M-800		/60-20B		
	Controlled axes	6		
	Max. payload at wrist	60kg		
	Motion range(X,Y)	2040mm, 3221mm		
	Repeatability	±0.015mm		
	Mass	820kg		
	Installation	Floor		
	Matching controller	R-50iA(A-B-Cabinet)		
	Application	Laser machining, Sealing		

FANUC Robot R-1000		/80-22A	/100-22A	/130-22A
	Controlled axes	6		
	Max. payload at wrist	80kg	100kg	130kg
	Motion range(X,Y)	2230mm, 3738mm		
	Repeatability	±0.03mm		
	Mass	620kg	665kg	675kg
	Installation	Floor, Upside-down		
	Matching controller	R-50iA(A-B-Cabinet)		
	Application	Handling, Assembling, Sealing, Spot welding		

## Large Size Robot

FANUC Robot R-2000		/100F-26D Hollow	/165F-26D Hollow	/210F-26D Hollow	/165F-27C	/210F-27C	/240F-27C	/125F-31C
	Controlled axes	6						
	Max. payload at wrist	100kg	165kg	210kg	165kg	210kg	240kg	125kg
	Motion range(X,Y)	2605mm, 3315mm			2655mm, 3414mm			3100mm, 4304mm
	Repeatability	±0.05mm						
	Mass	1150kg			1090kg			1115kg
	Installation	Floor						
	Matching controller	R-50iA(A-B-Cabinet)						
	Application	Handling, Assembling, Sealing, Spot welding, Press to press handling, Deburring						

FANUC Robot R-2000		/270F-27C	/210F-31C	/165R-31C	/210R-31C	/270R-31C	/100R-35C
	Controlled axes	6					
	Max. payload at wrist	270kg (option: 300kg)	210kg	165kg	210kg	270kg	100kg
	Motion range(X,Y)	2655mm, 3414mm   3100mm, 4304mm		3095mm, 4733mm			3540mm, 5623mm
	Repeatability	±0.05mm					
	Mass	1320kg	1350kg	1370kg		1590kg	1495kg
	Installation	Floor			Rack		
	Matching controller	R-50iA(A-B-Cabinet)					
	Application	Handling, Assembling, Sealing, Spot welding, Press to press handling, Deburring					

FANUC Robot R-2000		/190-20C	/220U-25C	/210F-25C Wash
	Controlled axes	6		
	Max. payload at wrist	190kg	220kg	210kg
	Motion range(X,Y)	2040mm, 3170mm	2518mm, 3414mm	2450mm, 3415mm
	Repeatability	±0.03mm	±0.05mm	±0.10mm
	Mass	1120kg	1020kg	1180kg
	Installation	Floor, Upside-down	Upside-down	Floor
	Matching controller	R-50iA(A-B-Cabinet)		
	Application	Handling, Assembling, Sealing, Spot welding, Press to press handling, Deburring		Washing

FANUC Robot M-900		/360-27B	/280-31B	/280-27B	/330F-32B	/200R-35A			
	Controlled axes	6							
	Max. payload at wrist	360kg	280kg		330kg	200kg	700kg	400kg	
	Motion range(X,Y)	2655mm, 3308mm	3103mm, 4200mm	2655mm, 3308mm	3203mm, 3539mm	3507mm, 3876mm	2832mm, 3288mm	3704mm*, 4621mm	
	Repeatability	±0.1mm							
	Mass	1540kg	1600kg	1700kg	1780kg	2670kg	3030kg	3150kg	
	Installation	Floor, Upside-down, Angle			Floor	Rack	Floor		
	Matching controller	R-50iA(A-B-Cabinet)				R-50iA(B-Cabinet)			
	Application	Handling, Assembling, Sealing, Spot welding, Press to press handling, Deburring							

\* Wrist motion is restricted when the wrist payload is over 300kg.



M-950/500F-28A M-1000/1000F-33A M-2000/2300F-37A M-2000/1700F-47A M-410/185F-31C P-40iA P-350iA/45 P-250iB/15 P-1000iA

## Large Size Robot

FANUC Robot M-950		/500F-28A				
FANUC Robot M-1000				/1000F-33A		
	Controlled axes					6
	Max. payload at wrist	500kg		1000kg		
	Motion range(X,Y)	2830mm, 3610mm		3253mm, 4297mm		
	Repeatability	±0.08mm		±0.10mm		
	Mass	2500kg		5300kg		
	Installation					Floor
	Matching controller	R-50iA(B-Cabinet)		R-50iA(A-,B-Cabinet)		
	Application					Handling
FANUC Robot M-2000		/1200F-37A	/900F-47A	/2300F-37A	/1700F-47A	
	Controlled axes					6
	Max. payload at wrist	1200kg(option: 1350kg)	900kg	2300kg	1700kg	
	Motion range(X,Y)	3734mm, 4683mm	4683mm, 6209mm	3734mm, 4683mm	4683mm, 6209mm	
	Repeatability					±0.18mm
	Mass	8600kg	9600kg	11000kg	12500kg	
	Installation					Floor
	Matching controller					R-50iA(A-,B-Cabinet)
	Application					Handling

## Large-size Palletizing Robot

FANUC Robot M-410		/110F-24C	/140F-29B-5X	/185F-31C	/315F-31C	/500F-31C	
	Controlled axes	4	5	4			
	Max. payload at wrist	110kg	140kg	185kg	315kg	500kg	
	Motion range(X,Y)	2403mm, 2238mm	2850mm, 3546mm	3143mm, 2958mm			
	Repeatability						±0.05mm
	Mass	1030kg	1200kg	Pedestal type 1600kg <sup>*1)</sup> No pedestal 1330kg <sup>*2)</sup>		Pedestal type 2410kg <sup>*1)</sup> No pedestal 1910kg <sup>*2)</sup>	
	Installation						Floor
	Matching controller						R-50iA(A-,B-Cabinet)
	Application						Handling

\*1) Controller mass(120kg) is included. \*2) Controller mass(120kg) is not included.

## Paint Robot

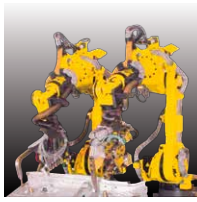
FANUC Robot P-40iA, P-350iA, P-250iB		P-40iA	P-350iA/45	P-250iB/15
	Controlled axes	6		
	Max. payload at wrist	5kg	45kg	15kg
	Motion range(X,Y)	1300mm, 2308mm	2606mm, 4575mm	2800mm, 5272mm
	Repeatability	±0.03mm	±0.06mm	±0.2mm
	Mass	110kg	590kg	530kg
	Installation	Floor, Upside-down, Wall, Rack, Angle		
	Matching controller	R-30iB Mate Plus	R-30iB Plus(A-Cabinet)	
	Application	Painting		
FANUC Robot P-1000iA		P-1000iA		
	Controlled axes	7		
	Max. payload at wrist	10kg(1500mm/s), 15kg(1200mm/s)		
	Motion range(X,Y)	3396mm, 4391mm(Metal arm)	3348mm, 4343mm(Plastic arm)	
	Repeatability	±0.5mm		
	Mass	700kg		
	Installation	Wall		
	Matching controller	R-30iB Plus(A-Cabinet)		
	Application	Painting		

## Wide range of applications

- A wide range of lineups that can be used in various manufacturing applications.



Load/Unload



Spot Welding



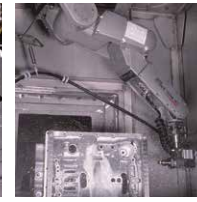
Arc Welding



Laser machining



Sealing



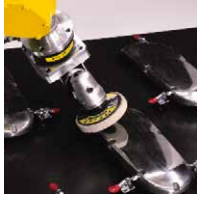
Washing



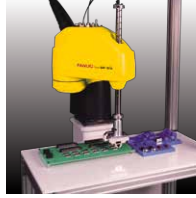
Painting



Palletizing



Polishing, Deburring



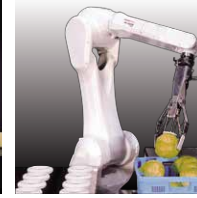
Assembly



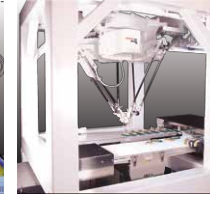
Inspection



Logistics



Food Packing



Pharmaceuticals

## Reliable Support System

- Fully supported by dedicated and knowledgeable technical staff.
- A wide variety of in person and hands-on training courses are available.

### FANUC ACADEMY



(Headquarters area)



(Nagoya branch)



Academy

## Complete maintenance system

FANUC service team delivers customer trust and confidence based on direction of service “Maximizing Uptime”, “Global Service” and “Lifetime maintenance”.

### Service First

Conforming to the spirit of “Service First”, FANUC provides lifetime maintenance to its products for as long as they are used by customers, through more than 270 service locations supporting more than 100 countries and regions throughout the world.

#### Maximizing Uptime



## Compliant with various safety standards



- Strict quality control.
- Compliant with safety standards of each country.

## Sustainability efforts



FANUC continues to contribute to the sustainability of society through continuous technological innovations that help overcome environmental and social challenges.

# Robot Controller R-50iA **New!**

## Compact & high-performance control

- High speed processing with multi-core CPU.



## Reliable cyber security measures

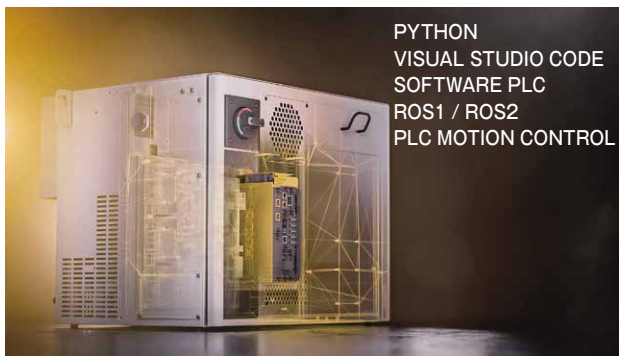
- World's first\* robot controller to receive international certification.

\*According to FANUC's research



## Productive system setup function

- Reduce setup time and costs with a variety of interfaces.



## Environmentally Conscious Design

- Reduce power consumption with low power consumption fan, amplifier with low loss power element, and highly efficient brake control.



R-50iA Video

## Controller Specification

	R-50iA A-Cabinet	R-50iA B-Cabinet	R-50iA Mate	R-30iB Mini Plus	R-30iB Compact Plus
Rated Supply Voltage	200 to 575V AC +10% - 15% 50/60Hz ± 1Hz, 3-Phase		200 to 240V AC +10% - 15% 50/60Hz ± 1Hz, 1/3-Phase	100 to 120V AC +10% - 10% 200 to 240V AC +10% - 15% 50/60Hz ± 1Hz, 1-Phase	200 to 240V AC +10% - 15% 50/60Hz ± 1Hz, 1-Phase
Mass(kg)	120 to 140 <small>NOTE1)</small>	160 to 180 <small>NOTE1)</small>	35/40 <small>NOTE1)</small>	20/22 <small>NOTE1)</small>	9
Dimensions(mm) W×D×H	600×470×500	600×550×950	470×322×400 470×402×400 <small>NOTE1)</small>	410×277×370	440×260×85.5
Protection Class	IP54				IP20
Safety Function	Emergency stop function Position/Speed check function	PL=e, Cat4 (ISO 13849-1) SIL3 (IEC61508) PL=e, Cat4 (ISO 13849-1) SIL3 (IEC61508)	PL=e, Cat4 (ISO 13849-1) SIL3 (IEC61508) PL=d, Cat3 (ISO 13849-1) SIL2 (IEC61508)		
External Memory	USB, SD			USB	
Field Network	Ethernet, FL-net, DeviceNet, PROFIBUS, PROFINET, CC-Link, CC-Link IE <small>NOTE2)</small> , EtherNet/IP, EtherCAT				
Supported Robot Model	Refer to the controller row on the robot line-up table			CRX	SR

NOTE1: These values differ depending on the robot model. NOTE2: Excludes R-30iB Compact Plus.

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