









Robot *i* series

Cost Savings through Intelligent Robotization for the 21st Century

GENERAL CATALOG

FANUC

Advantage of using robots

• FANUC Robots will provide your factories with a wide range of advantages.

Increased Productivity

- Robots are able to handle products that are too heavy and unsafe for humans to lift.
- Robots are able to operate faster than humans.
- Robots can work nights, weekends, holidays, and in "lights out" facilities without a rest.

Higher Product Quality

- Robots are more accurate than manual labor.
- Robots provide higher product quality more consistently than manual labor.

Improved Work Reliability

- Robots are highly durable and can be relied on for a long-term operation.
- Robots are able to perform complex tasks and operations on behalf of humans.
- No sudden surprises such as sick leave or retirement exists.

Reduced Costs

- Replacing manual operations with robots can reduce personnel costs.
- Easier system or process changeover can be realized.





Various application of robots

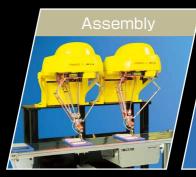
- FANUC has a wide range of robot types and models available for various applications.
- Various features are available for FANUC robots to make a maximum use of robot flexibilities.







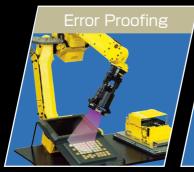


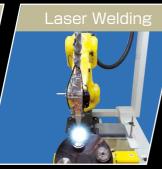
















FANUC Robot i series



















Collaborative Robot

FANUC Robot CR-41A	A, 7 <i>İ</i> A, 14 <i>İ</i> A	4iA	7iA	7iA/L	1 <i>4i</i> A/L		
	Controlled axes	6					
	Max.payload at wrist	4kg	7	kg	14kg		
	Motion range(X,Y)	550mm, 818mm	717mm, 1061mm	911mm, 1359mm	911mm (load capacity<12kg), 1359mm 820mm (load capacity≥12kg), 1359mm		
	Repeatablity			±0.01mm			
	Mass	48kg	53kg		55kg		
1 1/ //	Installation			oor, Upside-down, A			
#	Matching controller/Input power capacity	R-30 <i>i</i> B Mate/R-30	IB Mate Plus(standar		R-30iB Mate Plus(standard)/1.2kVA		
- ^ -	Application			Handling, Assemblir	ng		
•							
FANUC Robot CR-151	A						
	Controlled axes			6			
	Max.payload at wrist	15kg					
	Motion range(X,Y)	1441mm, 2413mm					
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Repeatablity	±0.02mm					
1 737 1	Mass	255kg					
무 / / ·	Installation			oor, Upside-down, A			
	Matching controller/Input power capacity				Plus (standard)/2kVA		
X	Application	Handling, Assembling					
FANUC Robot CR-35	iA						
	Controlled axes			6			
	Max.payload at wrist			35kg			
	Motion range(X,Y)			1813mm, 2931mi	m		
√ (الر	Repeatability			±0.03mm			
1 / (/ /	Mass			990kg			
1 1 1	Installation			Floor			
T \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Matching controller/Input power capacity			R-30iB Plus(A-cabi			
	Application			Handling, Assemblir	ng		

Mini Robot, SCARA Robot, Delta Robot

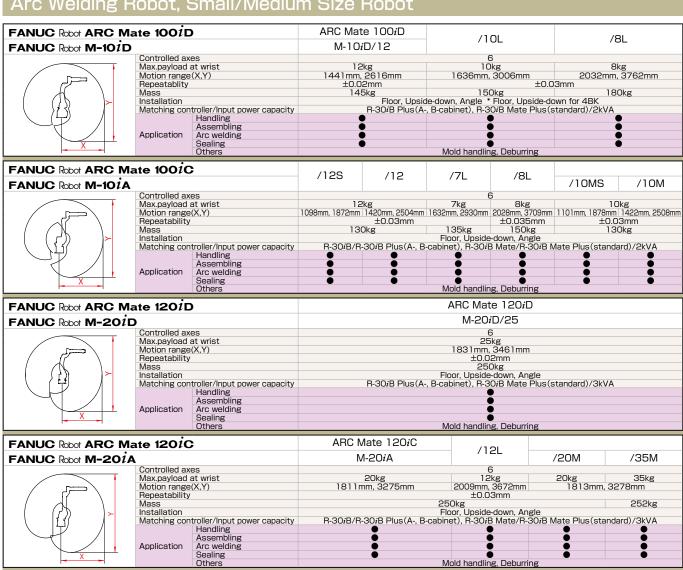
FANUC Robot LR Mat	e 200 <i>i</i> D	200 <i>i</i> D		/48		
FANUC Robot ARC M		50 <i>i</i> D	/7L			
I AIGO ROO AIGO M	Controlled axes	30.2	6			
	Max.payload at wrist Motion range(X,Y)	717mm, 1274mm	7kg 911mm, 1643mm	4kg 550mm, 970mm		
	Repeatability Mass	25kg	±0.01mm 27kg	20kg		
	Installation Matching controller/Input power cap Handling Assembling	R-30iB Mate(standar	Floor, Upside-down, Angle d, open air)/R-30 <i>i</i> B Mate Plus(sta	andard, open air)/1.2kVA		
X	Application Arc welding Sealing Others	•	Mold release spray, Deburring	•		
FANUC Robot LR Mat		/7WP /7C	/7LC /4SC	/7H /4SH		
	Controlled axes Max.payload at wrist Motion range(X,Y) Repeatability	7kg 717mm, 1274mm	4kg	7kg 4kg 717mm, 1274mm 550mm, 970mm		
(())	Mass Installation Matching controller/Input power cap	25kg acity R-30 <i>i</i> B Mate(standar	27kg 20kg Floor, Upside-down, Angle d, open air)/R-30 <i>i</i> B Mate Plus(sta	24kg 19kg andard, open air)/1.2kVA		
	Application Handling Assembling Washing Clean room			•		
FANUC Robot SR-31A		SR-3iA		SR-6 <i>i</i> A		
	Controlled axes Max.payload at wrist Motion range(X,Y) Stroke(Z) J1+J2 axis	3kg 400mm, 800n 200mm	±0.01mm	6kg 650mm, 1300mm 210mm		
	Repeatablity J3 stroke J4 axis Mass Installation	19kg	±0.01 mm ±0.004° Floor, Wall	30kg		
X	Matching controller/Input power cap Application Handling Assembling	eacity	R-30iB Compact Plus/2kVA	•		
FANUC Robot M-11A		/0.5A /0.5S	/1H /0.5AL	/0.5SL /1HL		
	Controlled axes Max.payload at wrist Motion range(X,Y)	6 4 0.5kg(option:1kg) \$\phi\$280mm, 100i	mm	4 3 ption:1kg) 1kg φ420mm, 150mm		
	Repeatability Mass(without stand) Installation	17kg 14kg	±0.02mm 12kg 20kg Floor, Ceiling, Angle	17kg 15kg		
X	Matching controller/Input power cap Application Handling Assembling	H-3U/B Mate (Standa	ard, open air)/R-30 <i>i</i> B Mate Plus(S	tandard, open air)/TkVA		



Mini Robot, SCARA Robot, Delta Robot

FANUC Robot M-2iA		/3A	/38	/6H	/3AL	/3SL	/6HL	
5.7	Controlled axes Max.payload at wrist Motion range(X,Y)		6 4 3kg φ800mm, 300mm			4 kg 1130mm, 400m	3 6kg m	
×	Repeatability Mass Installation Matching controller/Input power capacity Application Assembling Assembling	140kg R-30 <i>i</i> B/R-30 <i>i</i> B P	130kg lus(A-cabinet), R-3	125kg Cei 80iB Mate(standard,	140kg ling	1 30kg Mate Plus(standard	125kg open air)/12kVA	
FANUC Robot M-3iA	Assembling	/6	SA	/6	SS	/1	2H	
£ 3	Controlled axes Max.payload at wrist Motion range(X,Y) Repeatability		6 Kg	6kg(opt \$\phi\$1350mr \$\pmu\$0.0	n, 500mm	3 12kg		
	Mass Installation Matching controller/Input power capacity		5kg lus(A-cabinet), R-3	160kg Ceiling		155kg Mate Plus(standard, open air)/12k		
X	Application Handling Assembling							
FANUC Robot DR-31E	B			/8	3L			
	Controlled axes Max.payload at wrist Motion range(X,Y)		4 8kg ¢1600mm, 500mm					
	Repeatability Mass Installation Matching controller/Input power capacity		R-30 <i>i</i> B Plus(A-	Cei	Okg ling	open air)/12kVA		
- X	Application	R-30 <i>i</i> B Plus(A-cabinet), R-30 <i>i</i> B Mate Plus(standard, open air)/12kVA Handling						

Arc Welding Robot, Small/Medium Size Robot





Arc Welding Robot, Small/Medium Size Robot

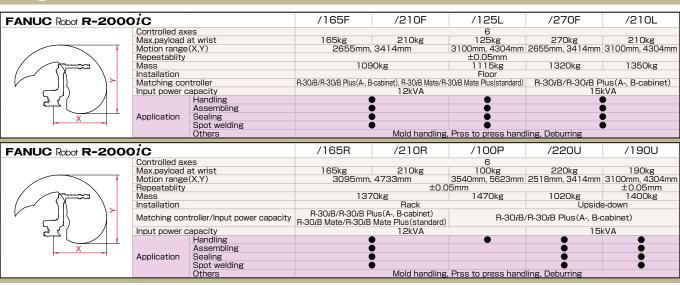
FANUC Robot M-201B			M-	20 <i>i</i> B/25		M-20 <i>i</i>	B/25C		M-20 <i>i</i> B/35S		
	Controlled axes		6								
	Max.payload	at wrist			25k				35kg		
	Motion range	(X,Y)		18	853mm, 3			1	445mm, 25	91mm	
	Repeatability					±0.0	2mm				
/ (Mass				210k				205kg		
	Installation					Floor, Upside					
\ \(\frac{1}{2}\)	Matching con	troller/Input power capacity	R-30			s(A-, B-cabinet e Plus(standar			Plus(A-, B-cal e Plus(standa	oinet), R-30 <i>i</i> B ard)/3kVA	
		Handling		•					•		
		Assembling		•					•		
	Application	Arc welding		•					•		
X	Application	Sealing	· ·					•			
- ^ -		Clean room									
		Others	Mold har	ndling, Debui	rring			Mol	d handling, D	eburring)	
FANUC Robot M-710i	C		/45M	/50	/70	/12L	/20L	/20M	/50S	/50H	
	Controlled ax	es	6						5		
	Max.payload	at wrist	45kg	50kg	70kg	12kg	20kg	20kg	50kg	50kg	
	Motion range	(X,Y)	2606mm, 4575mm	2050mm,	3545mm	3123mm, 5609mm	3110mm, 5583mm	2582mm, 4609mm	1359mm, 2043mm	2003mm, 3451mm	
/ <u>~</u>	Repeatability		±0.06mm	±0.03mm			±0.06mm			3mm	
	Mass		570kg	560	Okg		Okg	530kg	545kg	540kg	
	Installation					r, Upside-down				Floor, Upside-down	
	Matching con	troller/Input power capacity	R-30 <i>i</i> B	/R-30 <i>i</i> B Plu	s(A-, B-ca	binet), R-30 <i>i</i> B	Mate/R-30il	B Mate Plus	(standard)/	12kVA*	
		Handling	•		•	•	•	•	•	•	
		Assembling	•		•	•	•	•	•		
	Application	Arc welding	•	•	•		•	•	•		
X		Sealing			•						
X		0									
X		Spot welding Others	•	• ,		ing, Deburring,		_	•		

^{*} R-30iB Mate/R-30iB Mate Plus controller (standard) is not available for /50 H.

Medium Size Robot

FANUC Robot R-1000	iA		/80F	/100F	/130F	/120F-7B	/80H
	Controlled ax	es		6		7	5
	Max.payload	at wrist	80kg	100kg	130kg	120kg	80kg
	Motion range	(X,Y)		2230mm, 3738mm		2230mm, 3779mm	2230mm, 3465mm
	Repeatability				±0.03mm		
1 // M \	Mass		620kg	665kg	675kg	790kg	610kg
	Installation		Floor, Upside-down				
	Matching cor	ntroller	R-30iB/R-30iB Plus(A-, B-cabinet), R-30iB Mate/R-30iB Mate Plus(standard)		R-30iB/R-30iB Plus(A-, B-cabin		cabinet)
	Input power of	capacity	12	12kVA		kVA	12kVA
		Handling	•	•	•	•	•
	Application	Assembling	•	•	•	•	
l x	Application	Sealing			•	•	
- ^ -		Spot welding			•	•	

Large Size Robot





Large Size Robot

EANILIO Datast D. 200	oio	/210	۸/⊏					
FANUC Robot R-20001C		/210	VV L					
FANUC Robot R-200			/170CF		/210FS	/2	220US	
	Controlled axes				6			
	Max.payload at wrist	210k		170kg		210kg		220kg
	Motion range(X,Y)	2450mm, 3		1520mm, 2279		2605mm, 3316mr		ım, 3316mm
	Repeatablity Mass	±0.10i		±0.15mm 800kg		1250kg	:0.3mm	160kg
	Installation	Floo		Floor, Upside-d	OWD	Floor		ide-down
	Matching controller			us(A B-cabinet)	OWII		(A-, B-cabine	
(/) >	Input power capacity	15kV		do (71, D odbillot)	12kVA			i 5kVA
\ (\(\(\) \)	Handling			•		•		•
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Assembling			•		•		•
7 🗸	Application Sealing			•				•
X	Spot weiging			<u> </u>		<u> </u>		•
	Washing Others	•		Mold bondling Or	aa ta araa	s handling, Deburr	in a	
	Others			Molu Haridiing, Pr	ss to pres	ss nandling, Debuit	IIIg_	
FANUC Robot M-900	iB	/360	/280L	/280		/700	/400L	
FANUC Robot M-900	iA				/150	Р		/200P
	Controlled axes				6	<u>'</u>		'
	Max.payload at wrist	360kg	280kg	280kg	150kg		400kg	200kg
	Motion range(X,Y)	2655mm, 3308mm				76mm 2832mm, 3288mm		
	Repeatablity	1540	±0.1mm		±0.3mr			±0.3mm
	Mass Installation	1540kg	1600kg Upside-dov		1860k Rack		3150kg	2670kg Rack
	Matching controller			30 <i>i</i> B(A B-cabine		t) M-900iB:R-30iB/R-30iB Plus(B-cab M-900iA:R-30iB(B-cabinet)		
₩ }) / I	Input power capacity	10.		15kVA	.,	18kVA		30kVA
/ / / / / / / / / / / / / / / / / / / 	Handling	•	•	•	•	•	•	•
	Assembling	•	•	•			•	
V	Application Sealing	•	•	•			•	
^ -	Spot welding	•	•	•		•		
	Press to press handling							
FANUC Robot M-2000iA		/120	00	/900L		/2300	/1	700L
	Controlled axes				6			
_(===\	Max.payload at wrist	1200kg(optio		900kg		2300kg		700kg
(())\ \.\	Motion range(X,Y)	3734mm, 4	683mm	4683mm, 6209		3734mm, 4683mr		m, 6209mm
[\frac{1}{2}\frac{1}{	Repeatability Mass	8600	ka	±0.18mm 9600kg		11000kg		0.27mm 2500kg
ا / ﴾ حمر	Installation	0000	rg	BOUUKB	Floor		l a	SOUCKE
T	Matching controller/Input power capacity			B-30/B/B-30/F		B-cabinet)/30kVA		
1 X	Application			11 00,0,11-00,1	Handlin			

Palletizing Robot, Others

FANUC Robot M-410i	/110		/185	/315	/500				
FANUC Robot M-410i	3		/140H	/700					
0 0	Controlled axes	4	5			4			
	Max.payload at wrist	110kg	140kg	185kg	315kg	500kg	700kg		
	Motion range(X,Y)	2403mm, 2238mm	2850mm, 3546mm						
	Repeatability	±0.05mm							
	Mass	1030kg	1200kg	Pedestal typ No pedestal	e 1600kg ^(*1) 1330kg ^(*2)	Pedestal type 2410kg ^(*1) No pedestal 1910kg ^(*2)	2700kg ^(*1)		
	Installation			Flo	oor				
X		R-30iB Plus(A-, B-cabinet)/15kVA			iB Plus(A-, B-ca	abinet)/15kVA			
	Application	Handling							

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

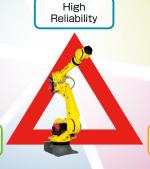
FANUC Robot F-200i	В				
V	Controlled ax	es	6		
- ^ -	Max.payload	at wrist	100kg		
	Motion range	(X,Y)	φ500mm, 300mm		
	Repeatability		±0.1mm		
	Mass		190kg		
	Installation		Floor, Upside-down		
I II //\\	Matching con	troller/Input power capacity	R-30iB(A-, B-cabinet)/5kVA		
()()()		Handling	•		
1 11/1	Application	Assembling	•		
1	Application	Spot welding	•		
518 m 7 1		Others	Lifter, Locater, Deburring, Inspection, Measurement		

Paint Robot

		P-40 i A	P-350 i A/45	P-250 i B/15
	Controlled axes		6	
	Max.payload at wrist	5kg	45kg	15kg
	Motion range(X,Y)	1300mm, 2308mm	2606mm, 4575mm	2800mm, 5272mm
I (Repeatablity	±0.2mm	±0.06mm	±0.2mm
\	Mass	110kg	570kg	530kg
	Installation			Floor, Upside-down, Wall, Rack, Angle
	Matching controller/Input power capacity	R-30iB Mate Plus / 1.5kVA	R-30iB Plus (A-cabinet) / 12kVA	R-30iB (A-cabinet) / 12kVA
* × *	Application		Painting	

Features of FANUC Robot

High Efficiency



High Flexibility

High Reliability

Reliable

FANUC designs and manufacturers all robot components with the highest quality and durability, including mechanical arms, servo motors, controllers, software, and sensors.

Predictable

Diagnostic features can inform you of conditions in which a robot may fail, allowing for preventative maintenance on the robot before a failure.

High Efficiency

Learning Robot

The Learning Robot provides smooth and high-speed motion by suppressing robot vibration. This enhances the robot's productivity and the efficiency of a production line, which contributes to reduced overall system costs. Also the Learning Robot enhances the performance of handling a heavy jit or workpiece, which causes robot.



jig or workpiece, which causes robot vibration.

High Flexibility

Robot i HMI

The robot *i*HMI provides a graphical and intuitive interface allowing operators at all levels to easily set up and operate a robot, and check its status.



Collaborative Robot

The green collaborative robot immediately and safely stops when it comes in contact with a human operator, allowing for safe operation in the same workspace without safety fences. This provides production efficiency and cost savings on labor at your factory. Additionally, lead through operation and teaching are available through the Hand Guidance feature.



iRVision - Integrated Robot Vision

Vision hardware is integrated in the robot controller as standard. 2D compensation, 3D compensation, color sorting, error proofing, bar code reading, etc. can be realized just by connecting Camera or 3D sensor on the controller.

Also, vision teaching and camera viewing can be done on the robot

teach pendant.



Zero Down Time

Zero Down Time combines various functions useful for preventive maintenance and helps to improve production efficiency by controlling these functions from a centralized server. This allows failures to be "Predictable".



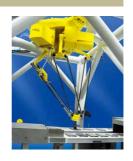


Easy to Repair

- · Robot mechanical units are designed for easy maintenance.
- Diagnostic features can estimate causes of failure, assisting your quick repair.

Visual Tracking

Through Visual Tracking the robot tracks and picks parts moving on a conveyor by utilizing the vision sensor located upstream. Multiple robots connected via a network can automatically divide the workload among the robots, allowing for automation in various picking and packing processes.



Bin Picking

The Bin Picking Robot equipped with a vision sensor automates the picking process of randomly piled parts in a bin. The parts do not need to be arranged in advance, eliminating the need for positioning fixtures. It also allows for easy part changeover. The Bin Picking Robot enables unmanned part handling in your factories.



Force Sensor/Deburring-Polishing

The Six-Axis Force Sensor, equipped on the robot's wrist, enables a contouring motion of the robot tool while maintaining a designated pushing force to the part. The force-controlled robot contributes to automating processes such as deburring of machined part edges and polishing of part surfaces.



ROBOGUIDE

ROBOGUIDE is a powerful PC simulation software providing system layout, programming and accurate simulation tools for design and evaluation of various robot systems.



Controller

	R-30 <i>i</i> B/R-30 <i>i</i> B	Plus Controller	R-30iB Mate/R-30iB	Mate Plus Controller	R-30 <i>i</i> B Compact				
	A-Cabinet	B-Cabinet	Standard Type	Open Air Type	Plus Controller				
					000				
Rated Supply Voltage	AC 200-575' 50/60Hz ±1+			AC 200-230V +10% -15% 50/60Hz ±1Hz, 1-phase/3-phase					
Mass of Controller	120-140kg	180-200kg	40kg	20kg	9kg				
Dimensions (W×D×H)	600x470x500	740x550x1100	470x322x400 470x402x400 *1	370x350x200 370x350x356 *1	440x260x85.5				
Overvoltage Category / Pollution degree		vervoltage Category I Pollution Degree 3, 30664-1, IEC/UL610		Overvoltage Category II, Pollution Degree 2, *3 IEC60664-1, IEC/UL61010-1	Overvoltage Category II,II, *4 Pollution Degree 2, *3 IEC60664-1, IEC/UL61010-1				
Protection Class		IP54		IP:	20				
Emergency stop		Emergency stop function PL=e, Cat4(IS013849-1) SIL3(IEC61508) Position/Speed check function PL=d, Cat3(IS013849-1) SIL2(IEC61508)							
External Memory	USB, P	CMCIA		USB					
Fieldbus	Ethernet, FL-net, De PROFINET, CC-Link, (IP, EtherCAT								

^{*1:}Dimension is varied due to robot types

Safety & Reliability

Industrial Standards Conformance for Safety and Environment

The FANUC Robot i series is manufactured at fully automated and robotized factories under strict quality control, and meets ISO:9001 certifications.

The FANUC Robot i series is compliant with the European, American, Korean, etc. safety standards, and has been certified with the CE, NRTL and KCs marking (with options for each specification). TÜV marking and TÜV EMC marking are attached when the European specification for the robot is chosen.



Maintenance & Support

Worldwide Customer Service

FANUC offers customer service and support anywhere in the world through subsidiaries and affiliates. FANUC prides itself in providing the highest quality service with the quickest response time at the nearest location to you.



FANUC ACADEMY

FANUC ACADEMY offer a variety of intensive robot training courses, from introductory to advanced knowledge and skills for teaching, operation, engineering and maintenance of FANUC robots and their applications. Hands-on training provides your employees with the skills needed to operate and maintain your factory automation.

CORPORATION

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^{*2:}Some Robot types do not correspond to R-30iB Plus or R-30iB Mate Plus.

^{*3:}This controller is an open air type, and should be installed in a "Pollution degree 2" environment regulated by IEC 60664-1, IEC/UL61010-1. 'Pollution degree 2" means a clean, office-like environment.

^{*4:}Overvoltage Category II per IEC 60664-1. Overvoltage Category III per IEC/UL 61010-1.