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# Robot FANUC M-20iA

## Max. payload 20 kg – max. reach 1811 mm

### Hollow wrist



The evolutionary design of the M-20iA solves two of the oldest problems for industrial robots. The first issue is the time it takes to engineer the robot dressout and the second is the down-time caused when the dressout is disrupted by contact with plant equipment. The innovative M-20iA solves these issues with a hollow upper arm and wrist. This unique design permits the utilities to be neatly contained within the arm, eliminating dress out issues like snagging, tearing and rubbing. A shelf with ample space on the back of the upper arm completes the package by allowing peripheral equipment to be easily mounted. The hollow arm and wrist together with the shelf greatly simplifies the integration engineers job.

To complement the built-in vision, the M-20iA has an integrated vision cable from the J1 base to J3 interface panel. This makes the addition of vision to the robot application much easier.

This exceptional design comes without sacrificing any of the robot's performance specifications. In fact this robot is an industry leader in payload, reach and axes speed. Add this to the industry leader in reliability and this robot is the perfect solution for your robotic application.

#### M-20iA Series, the solution for:

- Dispensing and Painting
- Assembly
- Material handling and material removal
- Machine load/unload and machine tending
- Waterjet and laser cutting
- Picking and packing

#### Features and benefits

- 6 degrees of freedom
- $\pm 0.08$  mm repeatability
- 20 kg payload at wrist
- Large wrist moments and inertias for real-world EOATs and workpieces
- Supplementary payload mount on J3 casting
- 2D vision cables from J1 to J3 as standard option
- Compact size, slim wrist and small footprint permit operation in tight work spaces
- Robot can be floor, angle, wall or ceiling mounted
- High joint speeds maximize throughput
- Absolute encoder positioning eliminates homing at power-up
- Intelligent colour graphic teach pendant is network ready
- Built-in solution arm, 50 mm hollow wrist and upper arm

#### Reliability

- RV reducer and gear drive-trains provide rigidity and performance in a compact package
- Sealed bearings and brushless, maintenance-free AC motors provide protection and improve reliability

#### Options

- M-20iA/10L variant available for applications that require greater reach
- Up to 40 axes (robot and auxiliary) on same controller
- Extended communications capabilities: FTP, Profibus, FANUC Model A I/O rack, etc.
- 14m or 21m controller-to-robot cables
- Many unique application-driven software options available
- iRvision® (Integrated Robot Vision) system

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## Technical Data

### Robot FANUC M-20iA

Maximum load capacity wrist:	20 kg
Maximum reach:	1811 mm
No. of axes:	6
Repeatability:	+/- 0,04 mm (based on ISO9283)
Weight (mechanical):	250 kg
Average power consumption:	1 kW
Protection body:	IP54 (standard), IP55 (optional)
Controller:	R-30iB, A-cabinet (standard), iPendant Touch

	Motion range	Max. speed
Axis J1:	370°	195°/sec
Axis J2:	260°	175°/sec
Axis J3:	458°	180°/sec
Axis J4:	400°	360°/sec
Axis J5:	360°	360°/sec
Axis J6:	900°	550°/sec

## Motion range and dimensions

