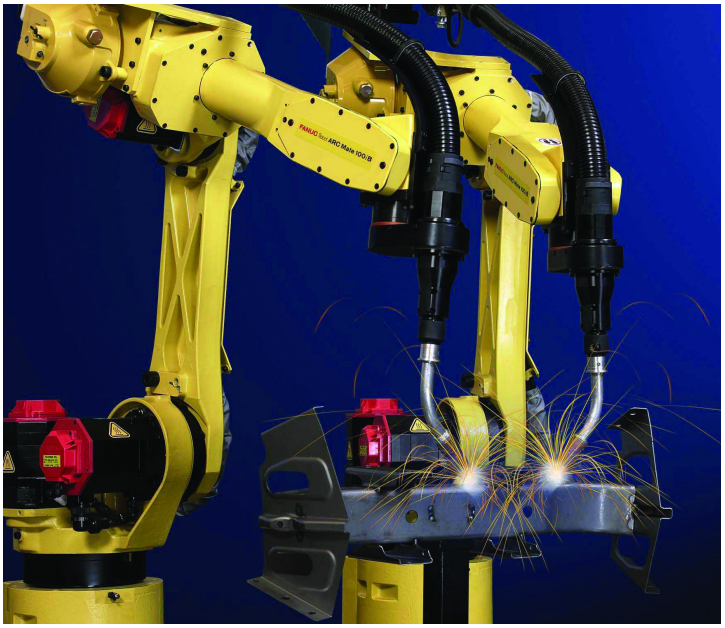
DualARM™ System

Basic Description

FANUC Robotics' DualARM System allows two robots and a positioner to be controlled in a single program with coordinated motion and arc start synchronization. The system provides the optimum solution for dual robot processing on a single positioner.

The DualARM System includes hardware and software designed to simplify workcell integration. Setup time and process development are made easier through intelligent control of two ARC Mate series robots and positioners.

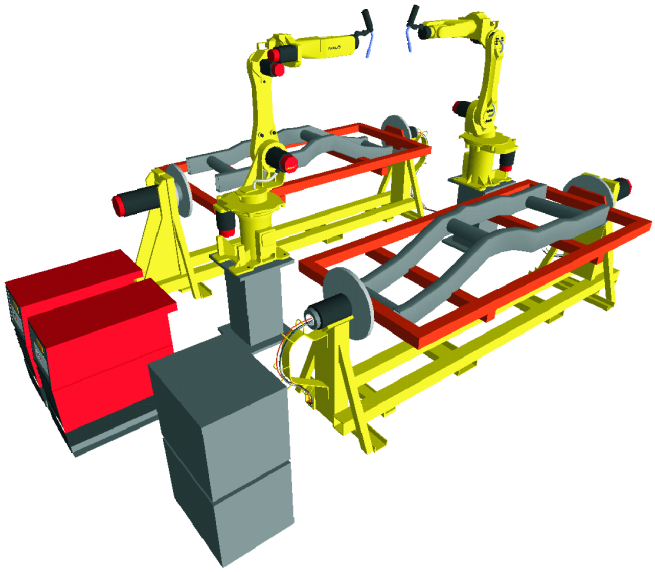


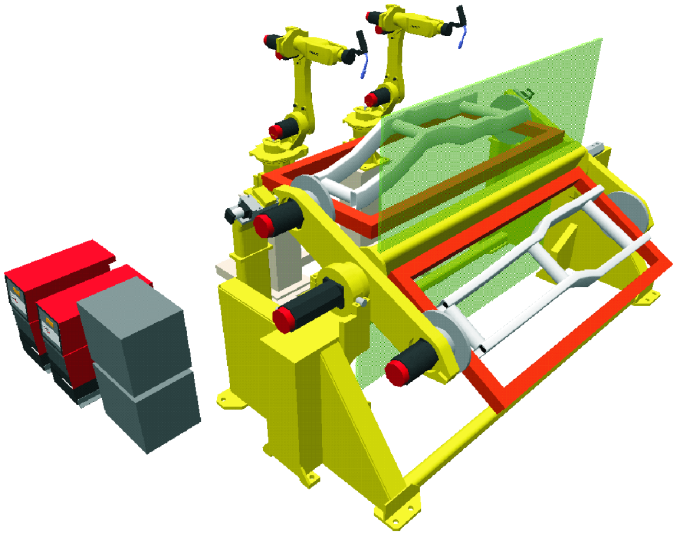
FANUC Robotics

Features and Benefits

- The DualARM System tightly integrates two ARC Mate robots controlled through one CPU and teach pendant, providing a common interface for the entire system.
- Direct entry of welding data into the program provides localized weld control, ease of use and ensures single point control.
- Multiple-Equipment ArcStart commands in one program (up to four) simplifies programming.
- Automatic Fault Recovery reduces down time by automatically moving the faulted robot to a service location without touching the teach pendant.
- Optional Lincoln Power Wave™ series with ArcLink™ interface allows setup of the entire welding system through a single teach pendant.
- Selectively disabling motion of one single robot increases operator safety during attended program verification.
- One E-stop I/O interface reduces e-stop circuit complexity and safety hardware costs.
- Expanded user operator panel signals and elimination of interference zone I/O simplify cell interface and reduces hardware.
- Multi-group motion feature allows multiple motion groups to operate simultaneously while multi-tasking.
- Arc start synchronization ensures that both robots have established an arc before motion starts along the weld path, improving weld quality.
- Single CPU means reduced expense for software options with one option being used for two robots.
- Common Ethernet connection for both robots simplifies offline connectivity.
- Single program control of all motion groups eliminates need for cumbersome, timed moves, providing better motion control, fewer taught points and improved weld quality.
- Programming time is reduced with the group mask exchange utility, allowing programs created for one postioner to be automatically created for a second positioner.
- Tightly-integrated, auxiliary axes allow both weld torches to be repositioned faster during part repositioning, reducing cycle time.
- All axes in the DualARM System are controlled through a single teach pendant improving safety for operators and reducing the risk of damage to tooling, end effectors, robots and parts.
- Single program motion control allows parts to be programmed and touched up easily by stepping forward and backward through teach pendant programs during program verification.
- Track and mirror jogging of robots allows for fast creation and editing of dual robot programs.

DualARM System Examples

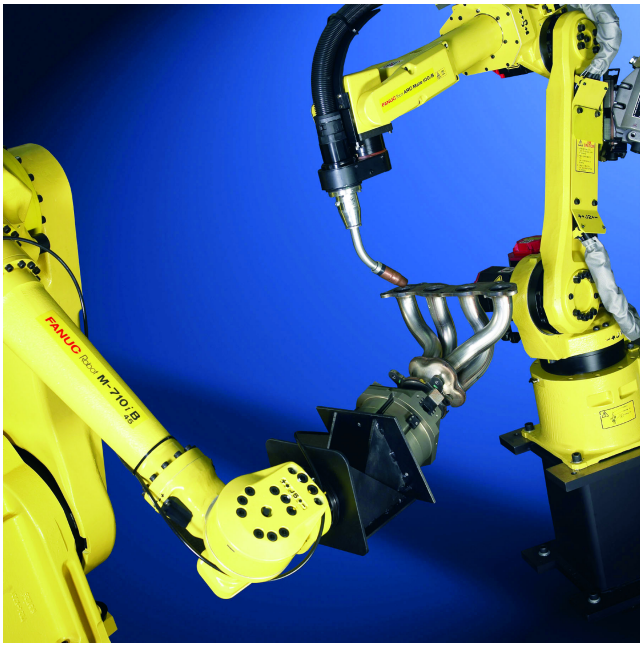




DualARM System Software Specifications

Included Software	Optional Software
Multi-robot	Data Monitor(1)
	Condition Monitor
Coordinated Motion	Touch Sensing
	TorchMate 3
Multi-equipment	R-J3*i*B Integrated PMC
	Error Code Output
Multi-group Motion	Extended Axes
	Detached Jog
Two Robot Libraries	Password Protection
	Domain Name Server
Track/Mirror Jog	Menu Utilities
	Web Server
	Servo Index
	Interference Check
	Local Stop
	Ethernet-based Options
	All Standard I/O Products

Notes:
(1) Data Monitor records all data relative to robot 1 (time or distance).



Robot-to-Robot Coordinated Motion

FANUC Robotics America, Inc.
3900 W. Hamlin Road
Rochester Hills, MI 48309-3253
(248) 377-7000
Fax (248) 377-7362

For sales or technical information, call:
1-800-47-ROBOT

marketing@fanucrobotics.com
www.fanucrobotics.com

Charlotte, NC
(704) 596-5121

Chicago, IL
(847) 898-6000

Cincinnati, OH
(513) 754-2400

Los Angeles, CA
(949) 595-2700

Toledo, OH
(419) 866-0788

Toronto, Canada
(905) 812-2300

Montréal, Canada
(450) 492-9001

Aguascalientes, Mexico
52 (449) 922-8000

Sao Paulo, Brazil
(55) (11) 3619-0599