







### **CSM**<sup>TM</sup>

#### CONNECTED SMART MANUFACTURING





	FANUC CNC Controls			FANUC Industrial Robot			
CSM FEATURES	CNC Simulator OiF Plus Controls	Levil CNC LMV-400 O <i>j-</i> MF Controls	ROBODRILL CNC a-D14MiB5 FANUC 31i-B5	OP10 Machine Tender	OP20 Laser Part Marking	OP30 Assembly Station	OP40 Packaging Station
Pricing	\$	\$\$	\$\$\$	\$ ✓	\$\$\$	\$\$ ✓	\$\$ ✓
Integrated industrial production line	✓	✓	✓	✓	✓	✓	✓
Production line flow	Right	Left	Right	Follows CNC flow	Follows CNC flow	Follows CNC flow	Follows CNC flow
Industry 4.0	✓	✓	✓	✓	✓	✓	✓
Project-based mechatronics				✓	✓	✓	✓
FANUC Certification	✓	✓	✓	✓	✓	✓	✓
FANUC CNC controls	✓	✓	✓				
Machine actual parts		✓	✓				
CNC tool holder type		S20T ER-16	BT-30				
Coolant		✓	✓				
Spindle RPM		14000	10000				
FANUC robot machine tender	✓	✓	✓				
FANUC iRVision	✓			✓	✓	✓	✓
Vision-guided pick and place						✓	
Vision inspection and sort				✓	✓	✓	✓
Fenceless robot cells with safety area scan				✓	✓	✓	✓
Rockwell Studio 5000 Logix PLC					✓	✓	✓
Banner safety controller				✓	✓	✓	✓
Rockwell HMI PanelView™ touchscreens					✓	✓	✓
Fluid power pneumatics				✓	✓	✓	✓
Part traceability and marking					✓		
Modular work cells (can be used independently)	✓	✓	✓	**	✓	✓	✓
Portable (fits in classroom)	✓	✓		✓	✓	✓	✓
Wired or wireless between stations				✓	✓	✓	✓
Fault insertion				✓	✓	✓	✓
Smart sensor technology I/O link with diagnostics					✓	✓	✓
Robot end-of-arm tool				gripper	vacuum & gripper	vacuum & gripper	vacuum & gripper
Conveyors with VFD (variable speed drives)					✓	✓	✓
RFID manufacturing process tracking					✓	✓	✓
APT integration curriculum	✓	✓	✓	✓	✓	✓	✓
120V 20 amp	✓	✓		✓	✓	✓	✓

<sup>\*\*</sup> OP10 with CNC simulator can be operated independently. OP10 with a Robodrill or Levil must stay mated together.



Buy individually or as a complete system

### **CERTIFICATIONS, CURRICULUM & SOFTWARE**

\*Ask your reseller about FANUC education grant offerings before purchase.

# **FANUC**

## Material Handling (MH) CERT Instructor Training and Toolkit:

- (1) online seat for CERT Cart Safety Features
- (1) online seat for Robot Operations
- (1) online seat for HandlingTool
- (1) online seat for HandlingPRO
- (1) seat for live HandlingTool at a FANUC facility
- (1) ROBOGUIDE Simulation Software license
- (1) FANUC Robot Operations Manual
- (1) FANUC HandlingTool Manual
- (1) FANUC HandlingPRO (ROBOGUIDE Simulation)
   Manual

#### Material Handling (MH) CERT School Comprehensive Educational Package:

- (25) online seats for Robot Operations
- (25) online seats for HandlingTool
- (25) online seats for HandlingPRO
- (25) ROBOGUIDE Simulation software licenses

#### **CNC Controls:**

- FANUC CNC industry-recognized certification
- School instructor receives FANUC training using FANUCapproved curriculum
- FANUC CNC Simulators and FANUC CNC controller for student's certification
- Student will receive letter of completion and instructor can issue student certificates from provided template



Available through your local Rockwell distributor.

#### **Rockwell Automation EDU Toolkit Bundle**

- Studio 5000 Logix Designer®
- Studio 5000 View Designer,
- plus over 100 more pieces of Rockwell software

**Learning+ course content** 



### Integration Project-Based Learning (PBL) Curriculum

- Daily lesson plans
- Assessment and grade charts

For more information contact: education@aptmfg.com 419-542-6681 x1126