

# TEACH INDUSTRY 4.0 IN YOUR CLASSROOM

The world of advanced manufacturing is undergoing a technological revolution as more businesses turn to Smart Factory technologies to improve the effectiveness and efficiency of processes and communication within their facilities.

## Smart Factory Tabletop Mechatronics Curriculum

### Ethernet

87-TENAB82

- Industrial Networks
- Ethernet IP Addresses
- Network Performance
- Managed Switch Ethernet
- Switch Diagnostics



### Barcode Reader

87-TBR1AB

- Barcode Operation
- Scan Accuracy
- Ethernet-to-Serial Interface
- Barcode Programming
- Function Blocks

### Smart Sensors

87-TMS5AB1

- RFID Programming
- RFID Operation
- Photoelectric Sensors
- Pressure/Vacuum Sensors

### Visual Communication

87-TVCAB

- Cloud-Based Data Acquisition
- SCADA Operation
- Configuring Cloud-Based SCADA
- Maintenance Management Operation
- Configuring Maintenance Management

### Manufacturing Execution

87-TMEAB

- Order entry
- Scheduling
- Schedule Status
- Production Statistics
- Alarms

### PLC Troubleshooting

990-PABCL1F

- Controller Operations
- PLC Program Operations
- PLC I/O Testing
- Event Sequencing
- Processor Troubleshooting

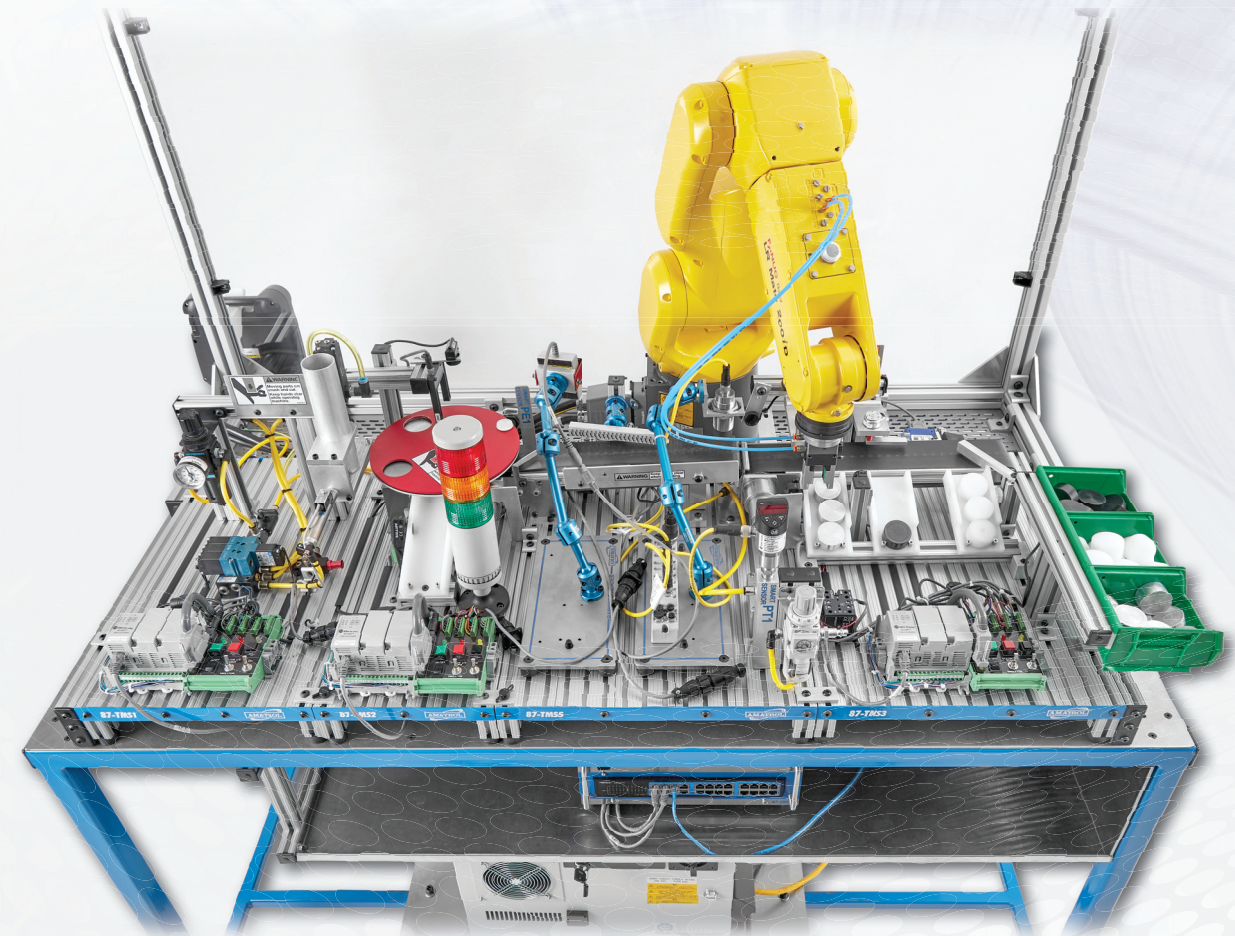
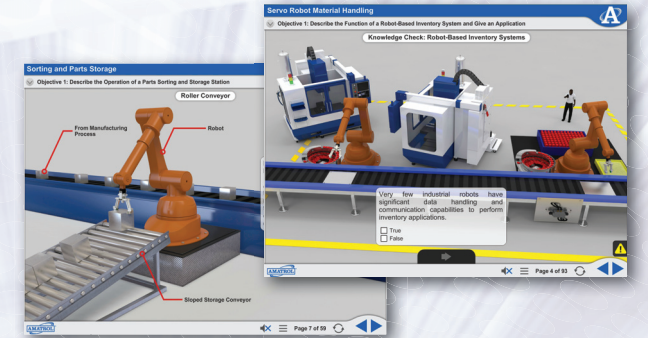
## Amatrol's Industry 4.0 Fundamentals

Smart Factory Tabletop Mechatronics is part of Amatrol's Industry 4.0 Fundamentals (I4F) multi-course program. The multi-course program is designed to introduce students to Industry 4.0 and prepare them to pursue exciting careers related to Industry 4.0 technologies. I4F is divided into four courses: Introduction to Mechatronics, Industrial Control Systems, Robot Operations and Programming, and Industrial Internet of Things.



### I4F Learning Systems

- Smart Factory Tabletop Mechatronics
- Portable AC/DC Electrical (990-ACDC1)
- Portable Electrical Control (990-EC1)
- Portable Pneumatics (990-PN1)
- Portable Measurement Tools (990-MES1)
- Robotics 1 & 2 (96-ROB1 & ROB2)
- Portable Hydraulics 1 (990-BH1)
- CNC Machines (96-CNC1)
- Skill Boss Manufacturing (95-MSB1)
- Portable Electronic Sensors (990-SN1)



Smart Factory Tabletop Mechatronics System (87-TMS) with Optional FANUC Robot

# SMART FACTORY TABLETOP MECHATRONICS

**HANDS-ON SMART FACTORY TRAINING WITH  
INDUSTRIAL SENSORS, I/O LINK, AND CLOUD-BASED SOFTWARE**

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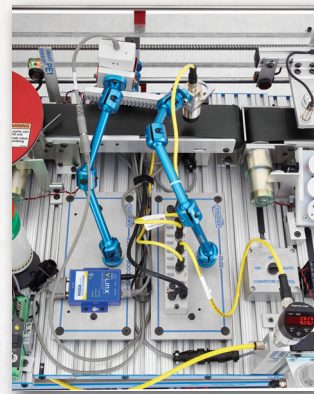
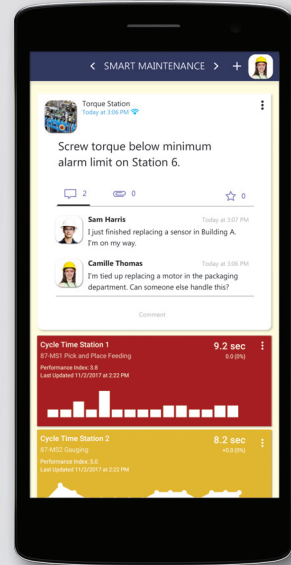


# HANDS-ON SMART PERFORMANCE MAINTENANCE AND ANALYSIS

## Visual Communication

87-TV CAB

- Visual Communications Software
- Mobile App Download
- Cloud-Based SCADA



87-TMS5AB1 and 87-TBR1AB

## Smart Sensors

87-TMS5AB1

- RFID
- Photoelectric Sensor
- Pressure Sensor
- I/O Link Master
- Conveyor

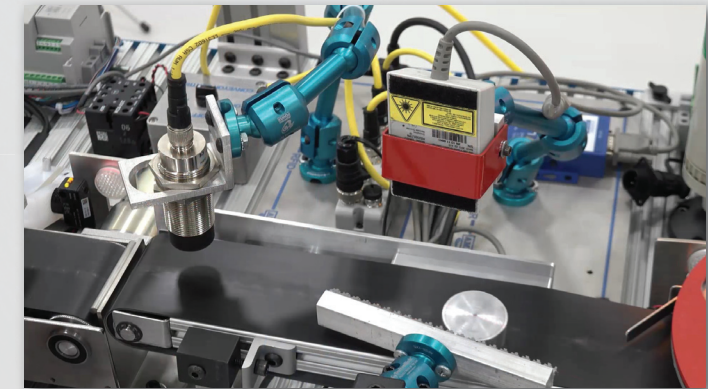
## Barcode Reader

87-TBR1AB

- Barcode Reader
- Ethernet-to-Serial Interface

## Amatrol Brings the Fourth Industrial Revolution Into Your Classroom!

Amatrol's Smart Factory Tabletop Mechatronics Learning System combines technology from the Industrial Internet of Things (IIoT), such as smart sensors, cloud-based software, I/O Link, and mobile apps, with traditional mechatronics equipment. This hands-on equipment and corresponding eLearning curriculum will upskill future and current workforce members to the cutting edge of manufacturing technology.



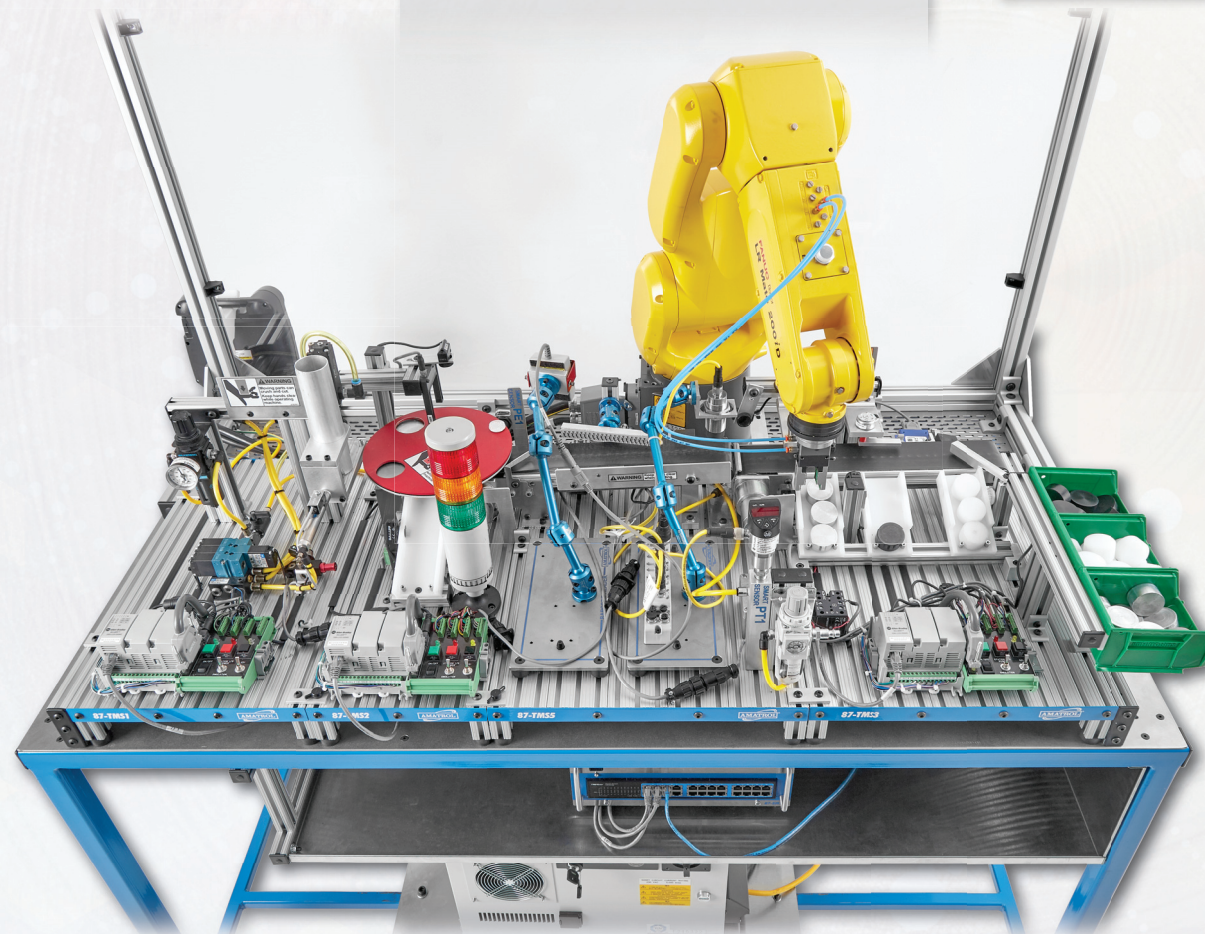
87-TMS5AB1 and 87-TBR1AB

## Industrial Robot

87-TMS4F

To provide learners with hands-on experience with an industry-leading industrial robot, Amatrol's Smart Factory Tabletop Mechatronics system can be supplemented with an optional FANUC 200iD 6-Axis Articulated Arm Servo Robot.

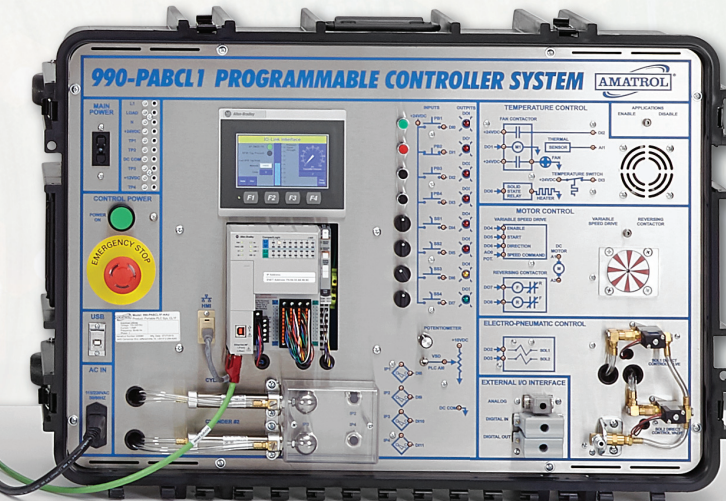
*NOTE: This option requires that customers already know basic FANUC programming, which is not taught in conjunction with this system.*



## Ethernet

87-TENAB82

- 24-port Unmanaged Ethernet Switch
- 8-port Managed Ethernet Switch



## PLC Troubleshooting

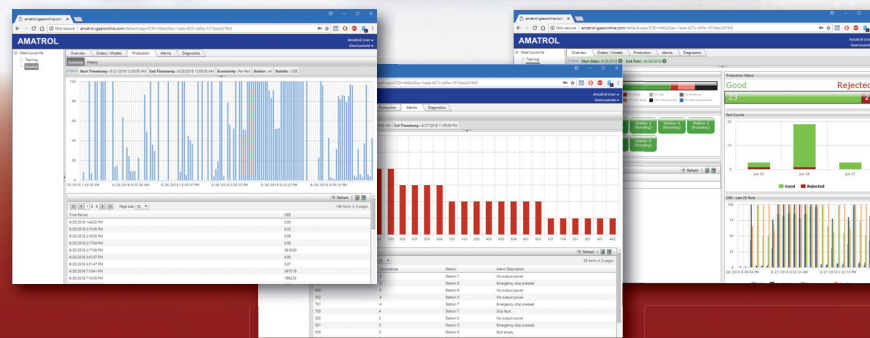
990-PABCL1F

- I/O Link Interface for Mechatronics System Status
- Allen-Bradley L16 Processor
- FaultPro for electronically-inserted fault troubleshooting

## Manufacturing Execution

87-TMEAB

- Manufacturing Execution Software
- Cloud Hosting
- Control Multiple Sensors with One Program



## World-Class Interactive Multimedia Curriculum

Amatrol's multimedia curriculum utilizes text with voiceovers, pictures, videos, stunning 3D animations, and interactive quizzes. For specifics on multimedia, see the back page of this brochure.

