Maximum flexibility with an integrated learning system

Industry 4.0 sustainably transforms work environments. Increased networking, flexibility, and complexity of processes require new skills and qualifications. Employees with technical and vocational education, and subsequent specialized training, must understand complex process workflows to ensure trouble-free system operations.

The prerequisite for this is experience mastering systems with decentralized intelligence, mastering data handling and analytics, and developing confidence in the ability to ensure problem-free system operation.

The learning solutions from Festo Didactic bridge the gap between basic, theoretical knowledge and practical, hands-on experience, empowering learners to perform competent work.

With a modular and integrated Industry 4.0 learning concept, we offer you the maximum flexibility to define individually customized learning content and learning scenarios.

Start small with Industry 4.0 fundamentals. An expansion of your existing system to different levels is possible at any time.

MPS® 203 I4.0 – Basic level

MPS® 203 I4.0 not only conveys the fundamentals of automation technology but also provides a simple and logical introduction to the essential uses and principles of Industry 4.0, especially for mechatronics technicians.

CP Lab – Advanced level

The Cyber-Physical Lab is our professional and compact Industry 4.0 learning system. It includes the relevant technologies and components for conveying comprehensive knowledge of Industry 4.0.

CP Factory – Expert level

CP Factory, the smart, universal Industry 4.0 learning factory, meets tomorrow’s production requirements for flexibility, agility, versatility, and efficiency. CP Factory is characterized by standardized and mobile factory modules, open interfaces according to Industry standards, and Plug & Produce solutions.
With Festo Didactic, you are sure to find the perfect approach to Industry 4.0 – adapted to your learning level and course requirements. Standardized learning content begins with the modular, mechatronic production system, MPS® 203 I4.0, continues with the cyber-physical learning lab, CP Lab, and culminates with the CP Factory, our smart, universal Industry 4.0 learning factory. You can easily expand your existing system up to the next level at any time.

### MPS® 203 I4.0 – Basic level

- **3D factory simulation for modeling, visualizing, and analyzing robot cells and production facilities.
- **Lean planning of new systems.
- **Optimization of existing systems.
- **Digital twin for Industry 4.0.

### CP Lab – Advanced level

- **IT security.
- **Robot transfer.
- **Fleet management mobile robots.
- **Robotics sim.
- **QR code / data matrix.
- **Frequency counter.
- **Smart maintenance.
- **SAPS (data recovery / energy recovery / efficiency).

### CP Factory – Expert level

- **Cloud MES.
- **Apply for reliable energy management.
- **Highly available network rings.
- **Intuitive and continuously available data visualization for human-machine interactions.
- **All for smart phones and tablets.
- **Efficient use of wearables.
- **Open format for own extension.
- **AR for smart phones and tablets.

### Advanced Industrial Control Systems

- **Working on modern control systems as a basis for future Industry 4.0 concepts.
- **PLC / industrial computer.
- **Human Machine Interface.
- **Drive regulator.
- **Robot control.

### Data Communication, Processing, and Security

- **Open Communication Standards.
- **ICT, Cloud, and ICS Cyber Security.
- **ERP, MES, Data Processing, Analytics, and KPIs.

### Advanced Manufacturing Concepts

- **Factory Layout Planning and Simulation.
- **Advanced Robotics Concepts.
- **Flexible and Additive Manufacturing Concepts.
- **Quality Control and Energy and Resource Efficient Manufacturing.
- **From Monitoring to Smart Maintenance Strategies.

### Data Driven Optimization of Manufacturing

- **Next Generation HMI – AR, Smart Glasses.