Level 2: Advanced Mechatronics
Applied Industry 4.0

FESTO

Estimated Duration: 20 hours

Building upon the base knowledge gained in the Level I Industry 4.0 Course, students will delve deeper into the IIOT (Industrial Internet of Things) as it applies to modern production systems. Much of the focus will be on how MES (Manufacturing Execution Systems) send and receive data from the production process. Participants will work with the MES and learn how to process, utilize, and protect critical data. The students will work with real production scenarios and real-world industrial equipment to incorporate HMI (Human Machine Interface) with the MES and equipment.

Industry Recognized Certification Topics

– Introduction to MES
– Introduction to HMI

– Introduction to Data Safety
– Introduction to 3D Modeling

Core Competencies

– Define MES and related functionality
– Configuration of MES
– Incorporate HMI applications to a production system
– Utilize web services/email push delivery

– Explain the importance of data security
– Explain how 3D Modeling of systems impacts production systems

Equipment

MPS-203 I4.0

Applied Industry 4.0 topics can be learned on many training systems from Festo including our CP Lab/Factory systems or with MPS203 I4.0. This system can also be used for Basic Networking and Product ID.
It is comprised of 3 stations and includes:
  – Set-up and optimization of material flow
  – Optimization of setup times
  – Material flow control
  – Enhanced I/O communication
  – RFID technology
  – Network technology
  – Condition monitoring
  – Web services
  – MES

The same system can apply to Product ID and I4.0 certification.

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