Processes in industrial production become ever more digital and connected. To keep pace with technological progress, apprentices in Technical Vocational Education and Training (TVET) and employees need to learn new technologies and specific applications. The Future Skill of 2019, which was proactively supported by Festo, Industry 4.0, now becomes an official new skill at the 46th WorldSkills Shanghai 2022 competition.

Festo, the world’s leading supplier of automation technology and technical education, is deploying its products and services to meet the challenge of smart production for the future in the course of digitalization. The company also relies on artificial intelligence and machine learning. With its profound expertise, Festo Didactic developed CP Lab, a perfect learning solution to prepare your candidates specifically for the competition in the new skill Industry 4.0 at the WorldSkills Shanghai 2022.
Festo and Worldskills are strong Partners since three Decades
Trendsetting learning solutions of Festo have become a standard

Made in Germany
Research and development of Festo automation technology and technical education solutions has its origin in Germany. Being a 100% family-owned company with its headquarters near Stuttgart, Germany, Festo maintains 61 subsidiaries and is represented in 178 countries around the world. This global market know-how enables Festo to react on trends and be the first one to present high-quality, state-of-the-art learning solutions for TVET. WorldSkills relies on the proven Festo quality and selected Festo as Global Industry Partner for good reasons 30 years ago.

WorldSkills Kazan 2019
With almost 1400 participants from 66 countries competing for the title in 56 professional disciplines, the WorldSkills Kazan was the largest world championship of vocational skills to date. As a Global Industry Partner of WorldSkills International, Festo has been supporting the organization since 1991 in its efforts to continually improve the quality of technical education.

WorldSkills Shanghai 2022
WorldSkills Shanghai 2022 will be held from 12-17 October. Competitors from over 60 WorldSkills member countries and regions will compete in 63 skills.

From future skill to official skill “Industry 4.0”
Festo Didactic was the first one to provide insights into newly emerging professions and challenges associated with the digitalization of industrial production, the so-called Future Skills. Festo Didactic assumed central responsibility for the "Industry 4.0" skill in the 'Future Skills Zone'. Various learning solutions specially developed by Festo Didactic for qualification in Industry 4.0 were used to solve practical tasks.

At WorldSkills Shanghai, the skill Industry 4.0 will officially be introduced as a new skill. Once again, Festo Didactic training systems will be used as competition material by numerous young international teams to show their professional excellence.

Dr. Nader Imani,
Executive Vice President Global Education at Festo Didactic

"The WorldSkills Organization has set itself the goal of changing the world for the better by strengthening professional skills," emphasizes Dr. Nader Imani.

“As one of the world’s leading providers of technical education and training, we have been supporting them for 30 years.”

A player in industry and government
Festo proudly looks back on almost 100 years of successful business and has become a prestigious leader in automation technology and technical education. Due to its inventive genius, Festo is active member of the Working Group of the Federal Government’s Platform Industry 4.0. Additionally, Festo was appointed as Corporate Technology Advisor to the Science Council by Federal President Frank-Walter Steinmeier and Anja Karliczek, Federal Minister of Education and Research, at the joint proposal of the federal and state governments for further three years until 2023.

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See the Future Skill "Industry 4.0" at the WorldSkills competition in Kazan 2019
Industry 4.0 - the future of manufacturing
The factory of the future is a network of cyber-physical systems with the aim of achieving a very high degree of resilience to changing market and customer requirements and the resulting turbulence in the production area. Furthermore, this goal is to be achieved under cost and efficiency aspects.

The learning system CP Lab with its various add-on modules offers the ideal platform to acquire and continuously develop the skills to build and operate such Industry 4.0 factories. Thanks to its consistent modularization and standardization as well as the exclusive use of open standards, the teaching system can grow with the requirements and is also constantly equipped with the latest technologies by Festo Didactic.

In the Future Skill Industry 4.0 competition in Kazan in 2019, participants already demonstrated their skills at the globally successful CP Lab. The participants of the WorldSkills competition in Shanghai can ideally use this system to prepare themselves for many of the relevant I4.0 technologies.

Technologies and Features of Industry 4.0
Well prepared for the future with Festo Didactic learning solutions

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Festo Didactic CP Lab aligned with WorldSkills Standards on Industry 4.0
Single workplace and system workplace offer designed to budget for single or multiple teams preparation

With both the single and system workplace, Festo Didactic offers you a training system especially designed to prepare candidates for the challenges of the new skill Industry 4.0. The technical equipment of the workplaces are naturally aligned and in accordance with WorldSkills regulations. The Single Workplace Equipment will be the official competition material for the Shanghai 2022 event. Both workplaces are fully assembled with the shown equipment. While the single workplace is ideal to train two learners, the system workplace enables students to simulate a factory environment and discover the connectivity of a real Industry 4.0 production.

### Single workplace equipment:
- 1x CP Lab Carriage
- 1x CP Lab Conveyor DC-1512SP
- 1x CP Lab HMI Case
- 1x CP Lab Touch Panel TP700 Comfort
- 1x Tabletop Supply Unit
- 1x CP Lab Application Module iDrill
- 1x Set of work pieces
- 1x NetLab Twin Package
- 1x Energy Measurement System
- 1x Energy Monitoring Package
- 1x Web shop for MES4
- 1x Equipment Set TP 1312 Smart Sensors
- 1x IoT Gateway
- 1x CIROS Software License
- 1x MES4 Licence for CP Lab
- 1x PC with TFT-monitor for MES
- 1x TIA Portal

### System workplace equipment:
- 4x CP Lab Carriage
- 4x CP Lab Conveyor DC-1512SP
- 4x CP Lab HMI Case
- 4x CP Lab Touch Panel TP700 Comfort
- 4x Tabletop Supply Unit
- 1x CP Lab Application Module iDrill
- 1x CP Lab Application Module Magazine
- 1x CP Lab Application Module Measuring
- 1x CP Lab Application Module Output
- 4x Set of work pieces
- 1x NetLab Twin Package
- 1x Energy Measurement System
- 1x Energy Monitoring Package
- 1x Web shop for MES4
- 1x Equipment Set TP 1312 Smart Sensors
- 1x IoT Gateway
- 1x CIROS Software License
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- 1x PC with TFT-monitor for MES
- 1x TIA Portal

**Included in both workplaces:**
- **iDrill**: The intelligent drilling application module provides control, communication and self-diagnostic capabilities
- **Smart Sensors**: ID-Link sensors enable real-time monitoring and smart applications
- **IoT Gateway**: An edge computing gateway connects the shop floor to the Industrial Internet of Things
- **Energy Measurement Box**: Industrial power and air sensors are integrated into a monitoring system

**NetLab**
- Two Managed switches and two Firewall routers enabling IT security and support scenarios

**CIROS**
- CIROS allows the factory simulation including faults and process optimization

**MES4**
- With MES4 the production is controlled easily and transparently

**Energy Monitoring**
- Energy Dashboards provide transparency and support efficiency improvements

**Web Shop**
- The configurable web shop connects eCommerce and shop floor

For more information on the single workplace CP Lab, please find our offer here

For more information on the system workplace CP Lab, please find our offer here
Technical Innovation and Technical Qualification
The implementation of Industry 4.0 needs skilled experts

Qualifying people for the future
How can technical and business innovations in connection with the term Industry 4.0 give companies a significant economic boost and can be implemented on a large scale?

Festo is convinced: technical education is key. Learning solutions and technical training of Festo Didactic enthuses young people for technical professions and increases the employability of learners and the productivity of companies.

Festo is a Global Industry Partner of WorldSkills for 30 years.

“We cannot emphasize enough how crucial it is to incorporate the recommended I4.0 training system and methodology routines into your regional or national skills competition. Working with it, you test and select the right candidate who will proudly represent his or her country showing the necessary I4.0 competencies.”

Sasa Simovic,
Skill Competition Manager Industry 4.0 at WorldSkills and Technical Expert at Festo Didactic

For more information on the WorldSkills Shanghai 2022 Industry 4.0 learning solution, please contact your local Festo sales office or our HQ

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