DIDACTIC GMBH
ELABO Training Systems

# Experience Digitalization!

ets-didactic.de

# VISIT ETS

Solutions – „Made in Germany“

The new headquaters of ETS DIDACTIC

# CONTENT

## Highlights



Made in Germany

FOLLOW US

# LEARNING FACTORY CPS-i40®

connectedFACTORY | Digital Transformation

Modular and flexible

The digital Learning Factory 4.0 CPS-i40® has been developed for education and training in the field of automated and digital production.

The qualification of young talents and the advanced training of experienced personnel for tomorrow‘s job market demands are on the focus.

OPC UA IO-Link PROFINET

Configurable learning situations

Stand-alone or system operations

Augmented Reality
tec2SKILL®

Linkage to OPC UA


# SAP4SCHOOL CPS-i40®

connectedFACTORY & Digital Factory

Intelligent networking is a key topic in the CPS-i40® learning factory. The vertical integration, i.e. the extension of the shop floor with the management level through MES – Manufacturing Execution System – up to the ERP – Enterprice Resource Planning System – forms the seamless exchange of information across the entire value chain of modern product plant.

The CPS-i40® learning factory is the basis for flexible production. For networking, the integrated enterprise software (IUS) of the market leader SAP is used. SAP ERP and SAP ME enable the tracking of the entire flow of goods and information at the machine and plant level.

# DIGITAL TWIN CPS-i40®

Virtualization of Production Processes

The increasing digitalization of networked production plants is becoming more and more important for the educational sector.

The „Digital TWIN“, as the digital twin of the individual CPS-i40 stations of the connectedFACTORY made by ETS DIDACTIC is called, allows virtual commissioning before bringing the real system into operation.

First virtual than real – this results in saving of time and money in the industrial sector. Prior to the transfer into the real process, modifications to the system are simulated, programmed and then tested for safe function in the virtual environment.

Digital TWIN station „raw material store“ in connectedFACTORY CPS-i40
Figure: Taken from NX – SIEMENS PLM

# MES – ALWAYS ON FOCUS

## Manufacturing Execution System CPS-i40

The Manufacturing Execution System (MES) represents the joining of the planning level and the production level.

Always on focus – the MES provides transparency throughout the entire production process. Manufacturing sequences can be easily coordinated with each other so that the highest possible productivity can be realized.

From „Big Data“ to „Smart Data”, the MES software supports the optimization process. The trainee can become familiar with the handling, the evaluation possibilities and the adaptation or coordination of process and software, competences essential for the future working environment 4.0.

As a matter of course, our CPS-i40® system is accompanied by comprehensive courseware to facilitate the learning process for the instructors as well as the trainees.


Systemflow – OEE line performance

# ETS QBOT360®

Logistic


The ETS QBOT360® is a driverless transport system (FTS) that integrates seamlessly with our existing CPS-i40® system and technically complements our industry 4.0 system.

# SMART SENSORICS CPS-i40®

From the Fundamentals to IO-Link Applications

Either with tablet computer or smart glasses - due to the Augmented Reality application, the relation to the field of sensorics for use in the connected-FACTORY is established - from theory to practice.

ETS

IO-Link

# SENSORICS

## tec2SKILL® - Augmented Reality

Based on Augmented Reality (AR), the tec2SKILL® APP assists the learner to work out helpful information.

The operating principle of the real industrial application, data sheets as well as instructions for commissioning complete the learning situation in applications.

tec2SKILL® Sensorics
The digital learning assistant
for sensor engineering

Erhältlich im App Store

Google Play

# SENSORICS

IO-Link


Parameterize, configure and control the connected sensors by using smart devices like tablet or smartphone.

Simultaneously, you will be given the product data of the sensor and further information that is useful for maintenance and service.

Erhältlich im App Store

Google Play

# FROM SENSOR INTO CLOUD

IIoT - Gateway

# INDUSTRIAL ROBOT

Virtual Reality

# SAFETY CUBE®

- Object detection
- Profinet - Interface
- Practical learning situations for knowledge transfer
- VR integration
- Discover virtuality

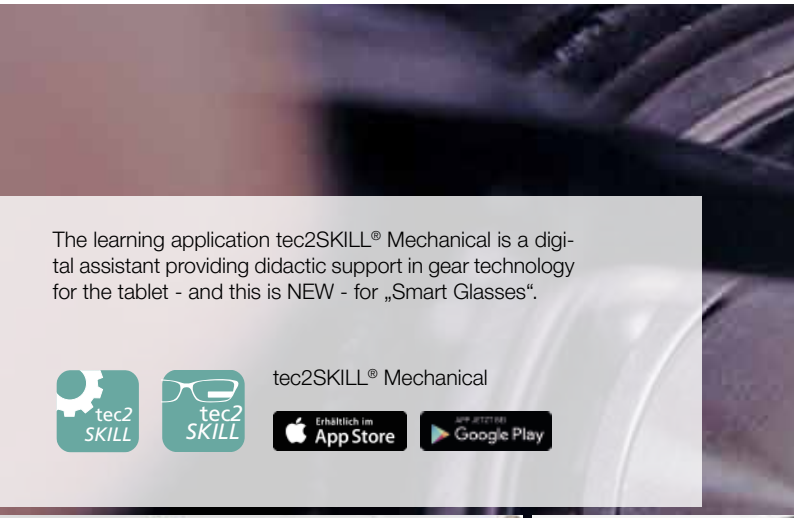
# COLLABORATIVE ROBOT (MRC)

Robot Simulation | Humanoid Robot

- Interaction of human being & machines
- Programming by guiding with smart devices
- Programming with tablet PC

# GEAR TECHNOLOGY

Digital Learning Assistant tec2SKILL® for metal professions



The learning application tec2SKILL® Mechanical is a digital assistant providing didactic support in gear technology for the tablet - and this is NEW - for „Smart Glasses“.

tec2SKILL® Mechanical

Erhältlich im App Store

Google Play

Available for all gear types

Helical gear 1-stage

Helical gear 2/3-stage

Planetary gear

Worm gear

Bevel gear

# ROLLER BEARING TECHNOLOGY

Mechanical roller bearing assembly –
on tapered shaft seat

- Mounting types of roller bearings
- Assembly and disassembly of various roller bearings
- Learning situations on bearing technology completed by didactic documents

# PNEUMATICS / ELECTROPNEUMATICS

with the digital Learning Assistant tec*2SKILL*®

- Application-oriented circuit configuration
- Interactive preparation of learning modules for pneumatic and electropneumatic applications

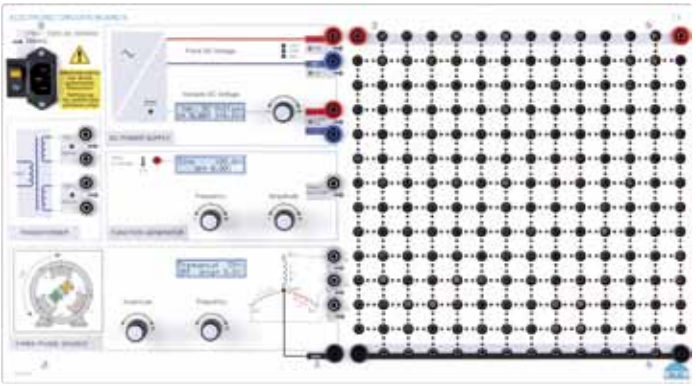
tec2 SKILL

The digital learning assistant for Pneumatics / E-pneumatics

# POWER ENGINEERING / ELECTRONICS

## Fundamentals

- Powerful
- Safe
- Informative (separate displays)
- Clear arrangement of supplies
- Flexible

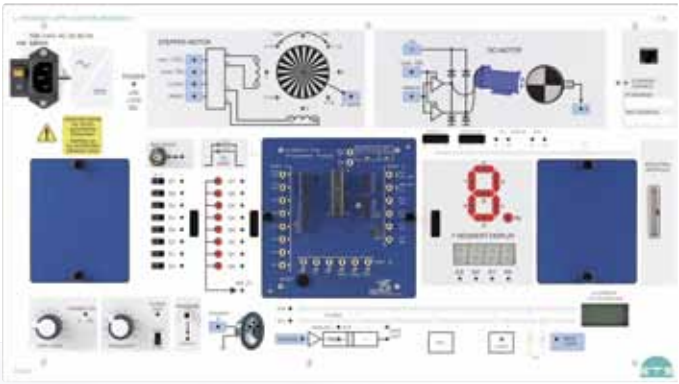


# MICROCONTROLLER TECHNOLOGY

From the Basics to the Application

- Universal „Embedded System“ concept
- Practice-oriented
- Future-oriented

Suitable for training of electronics technicians for information technology systems!



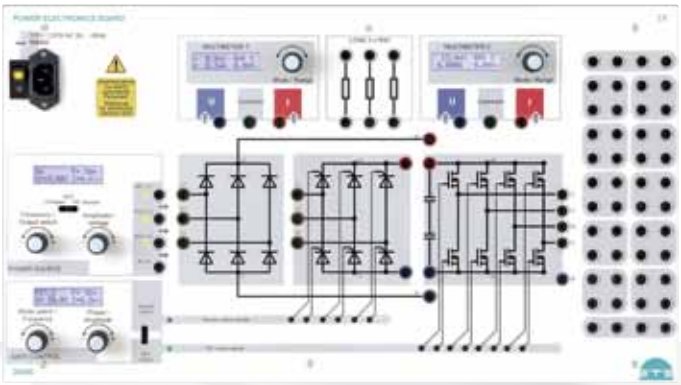

## NEW

Now available: Manual „ATmega328P Part 2“!

# POWER ENGINEERING

Energy efficiency on Focus

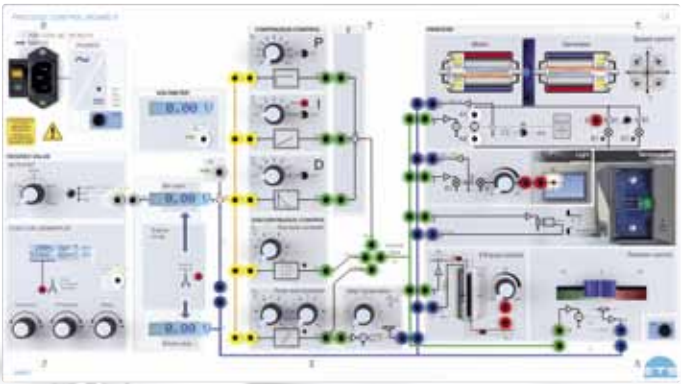
- Didactic reduction to essential points
- Various motors
- Integrated measurment technology



# CONTROL TECHNOLOGY

## Fundamentals of Control and Automated Control Technology

- Compact and clear
- Consolidated fundamental knowledge transfer
- Practice-oriented learning situations



# SAFETY TECHNOLOGY

## Machine Safety

- Emergency - STOP function
- Two-hand operation
- Save time function
- Individually programmable safety relay

# ROOM CONCEPT

## Customized Laboratory Tables

- Individually configurable power supply
- Ergonomic workplace design
- Individual storage concept

Laboratory table for installation technology


# Better in detail.
# Better ETS.

Im Hüttental 11 | 85125 Kinding | Germany
Phone +49 8467 8404-0 | Fax +49 8467 8404-44
sales@ets-didactic.de | ets-didactic.de