# e.Do EXPERIENCE © Copyright Comau



COMAU

INNOVATIVE EDUCATION
TO LEARN THE FUTURE



e.DO™ is a flexible, interactive open-source professional robot created for anyone who wants to explore or expand the world of robotics. It is designed to stimulate creativity and participation inside and outside a classroom setting.

e.DO integrates and consolidates key skill areas such as Robotics, STEM subjects (Science, Technology, Engineering, Mathematics), Soft Skills and Industrial Culture.

e.DO Experience is an innovative educational platform for learners of all ages that:

facilitates a pragmatic approach in learning disciplines;

strengthens cross-disciplinary competences;

 encourages involvement, cooperation and inclusion among participants;

 provides an unconventional and engaging learning journey;

 develops the ability to link disciplinary learning to the world at large.

### **Comau Academy**

plays a leadership role in competency development: in partnership with the world's most renowned Educational Institutions, it offers a vast range of training programs such as Executive and Specialized Masters, Bachelors and Master of Science and Professional certification programs.

Comau Academy programs are dedicated to inspiring companies, professionals, young talents, universities and schools. Its results-oriented educational approach and intensive hands-on learning programs are based on the same method applied on a daily basis at Comau.

Since 2012, Comau Academy has trained more than 12,000 people of all ages from all over the world, involving more than 320 Subject Matter Experts in its internal and external Faculty.

## Join our training team and become part of our certified professional community

Apply at edo.cloud/support-and-contacts/





### e.DO Experience

Anyone can enjoy an e.DO Experience: kids, students, teachers, talents and leaders, professionals, robot lovers, visitors of museums or exhibitions, conference delegates, families on their free time and many others.

#### **PROFESSIONALS**

«Super Interesting! It inspires creativity and involvement, and challenges you to get new skills»

### FAMILIES

«I definitely fell in love with robots! I never thought they could be so sexy..»

#### **STUDENTS**

«Simply fa-bo-lous!
I learned a lot about robots,
they opened my eyes on
a new world»

#### **TEACHERS**

«A fantastic opportunity, a good stepping stone to a student's educational and professional future»

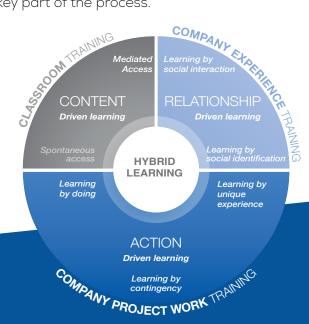
### **Comau Learning Model**

e.DO Experience leverages on Comau Academy's learning model, which mirrors the way people learn «naturally»:

CONTENT: learning is due to the acquisition (formal or spontaneous) of new knowledge, principles, tools.

RELATIONSHIP: people learn by social interaction, experience sharing, emotional bond to others.

ACTION: learning by doing (performing tasks, facing challenges, solving problems) is a key part of the process.





e.DO™ Experience is work in progress,

more options can be developed in the future or available on demand

## e. Do LEARNING CENTER

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AN INSPIRING PLACE FOR **EDUCATIONAL INNOVATION,** WHERE STUDENTS LEARN WITH FUN

COMAU

# **E.** DO LEARNING CENTER in short

#### WHAT IS e.DO™ LEARNING CENTER?

An engaging educational environment to discover the inspiring potential of Robotics while learning.

#### WHO ARE THE BENEFICIARIES?

Students from 8 to 19 years old who want to give a closer look on the scientific world.

#### **HOW DOES IT WORK?**

- 3 to 5 e.DO installed
- 4-hour Training Packages
   (Mathematics, Technical Education, Coding)
- Certified facilitation
- 3 different configurations (Turnkey, Facilitated, Service)





e.DO Learning Center is an innovative education environment where primary and secondary school students can use robots to enhance their knowledge on various school subjects.

The young attendees, from 8 to 19 years old, discover and experience e.DO in an engaging session focusing on STEM, Soft Skills and Industrial Culture, which form a basis for their future growth.

e.DO Learning Center is equipped with ready-to-use material, specifically designed to support the delivery of the Training Packages by a certified facilitator:

e.DO + Gripper & Marker Holder Training Packages
Working Board
Packages Box

- DIDACTIC KIT -

Installation, Training & Assistance

- SERVICES -

**Tablet** 



The e.DO Learning Center is composed of 3 to 5 e.DO systems and offers 4-hour Training Packages:

Subject*	Age: 8-10	Age: 11-13	Age: 14-19
Mathematics	RoboCOUNT Operations and measurements	RoboAXES Cartesian plane	RoboCHART Analytic geometry
Technical education		RoboFACTORY Production models and scientific method	RobolNDUSTRY Production and logistics
Coding	RoboBLOCK Principles of coding and Visual Programming Language	RoboBIT Binary numeral system and computational thinking	RoboPROGRAM From flowchart to program

<sup>(\*)</sup> New training packages currently under development will cover more subjects as Artificial Intelligence, Physics, Chemistry.

e.DO Learning Center is available in 3 different configurations:

- TURNKEY: buy your e.DO Learning Center and run it in full autonomy.
- FACILITATED: buy your e.DO Learning Center and benefit from the experience of a certified COMAU facilitator.
- **SERVICE**: rent an e.DO Learning Center with a COMAU facilitator and enjoy the experience anywhere.

## e.Do LEARNING LAB

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AN EDUCATIONAL TOOL ENABLING **TEACHERS TO DELIVER HANDS-ON LESSONS WITH ROBOTICS** 

COMAU



#### WHAT IS e.DO™ LEARNING LAB?

A fully equipped educational Robotics Lab, enabling teachers to use Robotics to deliver hands-on lessons at school.

#### WHO IS THE TARGET?

Students aged 8 to 19 years old benefit from lessons prepared and delivered by their teachers.

#### **HOW DOES IT WORK?**

- 1 to 5 e.DO installed (or in alternative Virtual e.DO)
- 3 to 10 didAPPs, to be chosen from a Library
- Lessons are designed with a duration of 2 hours



e.DO Learning Lab offers teachers a great opportunity to run an Educational Robotics laboratory in complete autonomy, achieving optimal engagement with students 8 to 19 years old.

e.DO Learning Lab comes with readyto-use material, specifically designed to lead and support the teachers in the delivery of their subject through the use of robots

It can be run with up to 5 installed e.DO robots or, as an alternative, with a virtual version of e.DO

Virtual e.DO

e.DO + Gripper & Marker Holder didAPP Library Working Board didAPP BOX

- DIDACTIC KIT -

e.DO LAB CARE

- SERVICES -

**Tablet** 



All the didAPPs (2 hours each) are designed as an integration of a particular discipline (Robotics, Math, Coding, with Artificial Intelligence and Physics to be developed soon) with a specific cross-over competence (Teamwork, Problem Solving, Creativity), which is practiced within a simulated working environment or with a case study.

Regardless of the subject area, every didAPP includes a Teacher's Guide with lesson plans, training materials such as slides, videos, exercises and evaluation tools, a Virtual e.DO visualizer and complementary learning resources

didAPP	Age: 8-10	Age: 11-13	Age: 14-19
ROBOTICS 1	Robot parts and movements	Robot parts and movements	Robot parts and functionalities
ROBOTICS 2			Robot movements and degrees of freedom
MATH 1	Operations and their properties	Cartesian plane	Points and segments on the Cartesian plane
MATH 2	Height, weight and other measurements	Scientific method	Lines on the Cartesian plane
CODING 1	Visual Programming Language	Visual Programming Language	From flowchart to program
CODING 2	Operators and conditions	Computational thinking and problem solving	Process optimization and problem solving

## **e.** Do ROBOTICS LICENSES

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**ENTER THE WORLD OF ROBOTICS** FROM THE FRONT DOOR

COMAU

# **E.** DO ROBOTICS LICENSES in short

#### WHAT IS e.DO™ ROBOTICS LICENSES?

A set of training paths on Industrial or Open Robotics, giving the opportunity to earn an internationally-recognized Industrial Robot Use and Programming Certificate or an e.DO User License.

#### WHO ARE THE BENEFICIARIES?

Students aged 11 and up, young talents and professionals.

#### **HOW DOES IT WORK?**

- 40-hour enabling course for teachers (online)
- 100-hour blended course for students (class+online)
- Certification as Experts in Robotics to be granted upon exam





e.DO Robotics Licenses is a training path where students from 11 years up can become Experts in Robotics while still at school, getting their first tastes of the working world.

It is a unique opportunity for students to achieve a real Robotics certificate, acknowledged at an international level, whose value is highly recognized by manufacturing companies.

e.DO Robotics Licenses can address the domain of Industrial Robotics, as well as Open Robotics.

The Robotics license is equivalent to the certification granted to professionals and companies, and can immediately be spent on the job.

Students are trained for a total of 100 hours (which may count towards Internship Program hours), split between classroom and online learning, while the final exam and the certification are executed at a qualified training center.



e.DO Robotics Licenses is a package that includes:

- an enabling Teacher Training course;
- an online training path, based on the Comau Web Academy platform, with multimedia material, simulations and exercises:
- a one-day final exam in a working environment;
- the final certification granted by a qualified center.

For educational facilities interested in creating a real working environment on their premises, a Technology Kit is also available.

#### - TRAINING -

Teacher Training platform

Online Student Exam

Certification

#### - TECHNOLOGY KIT -

e.DO +
Gripper &
Marker
Holder

Working Board

**CPU** 

Touch Pendant

## e.Do PROGRAMS

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**ACCELERATE** 

SPEED UP YOUR DEVELOPMENT: e.DO IS THERE FOR YOU

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## **e.** Do PROGRAMS

in short

#### WHAT IS e.DO™ PROGRAMS?

A series of training programs able to boost personal development of different generations according to their peculiar learning styles.

#### WHO ARE THE BENEFICIARIES?

Kids and adults; students, teachers and professionals; individuals or company teams.

#### **HOW DOES IT WORK?**

- Different training programs are available off-the-shelf or designed upon customer needs
- Delivered at Comau or the customer's facilities
- Duration: 1 to 10 days



e.DO Programs is a set of educational initiatives for kids, students and adults, individuals or company teams, with a strong focus on Digital, Soft Skills and Industrial Culture.

Learn about technology, become familiar with STEM or just have fun. Each educational initiative offered through e.DO Programs has been specifically created for the needs of its target.

All the necessary support is included: an innovative and robust learning path, a strong facilitation team, a proper number of robots, all the training material and whatever may be needed for an effective learning experience, in accordance to different learning styles of the target group.



e.DO Summer School	YOUNG TALENTS	10 days	A full immersion, 2-week experience specifically designed in three formats to meet the needs of different audiences:  • OPEN ROBOTICS (Age 11-13) Industry 4.0; Open Robotics License; Coding; Artificial Intelligence  • INDUSTRIAL ROBOTICS (Age 14-19) Industry 4.0; Industrial Robotics license; Coding; Artificial Intelligence  • HUMAN AND TECHNOLOGY (Age 14-19) Digital Transformation; People and Technologies; Innovation
e.DO STEM Week	YOUNG TALENTS	5 days	ROBOTICS FOR INNOVATION: is a direct experience of how STEM applies to real case scenarios, available in different formats for students aged 6-10, 11-13 and 14-19.  One-day Company Experience, e.DO Robotic Lab, Orienteering session, Innovation Hackathon
e.DO Seminar	TEACHERS AND TRAINING PROFESSIONALS	1 to 5 days	<ul> <li>INNOVATION IN TRAINING: Teachers are guided in discovering new technologies and challenged in their teaching competencies, as they become e.DO Certified Facilitators by designing and delivering a session with the use of e.DO.</li> </ul>
e.DO Workshop	PROFESSIONALS	2 days	INDUSTRY 4.0 MINDSET: discover and experience the innovative approach and behavior needed to succeed in a game-changing technology scenario.

# E.DO EVENTS © Copyright Comau



SIT BACK, RELAX AND SAVOR THE MAGIC OF ROBOTICS

COMAU

## **e.** Do EVENTS

### in short

#### WHAT IS e.DO™ EVENTS?

A series of edu-tainment programs designed to bring the magic of Robotics to company meetings, public venues and private events.

#### WHO ARE THE BENEFICIARIES?

Small and large audiences of any ages and interests.

#### **HOW DOES IT WORK?**

From challenges and tasks, to games and entertainment, an e.DO Event can involve from 1 up to 100 e.DO robots based on the location, the event objectives and the size of the audience.



Discover how Robotics can be entertaining, interesting and fun. Send your audience a message from the near future.

Whether the need is to showcase the possibilities of Robotics with a short demo or to animate a company meeting, make a graduation ceremony more lively or just raise a WOW! in the audience, e.DO Events provides an entertaining learning and discovery experience built around innovative robotic technology.

With e.DO Events, customers receive one or more e.DO robots, at the location of their choice, together with a certified facilitation team trained to run the session and turn it into a great success. With e.DO Events, different audiences can get a feel for Robotics with tasks, exercises, challenges and functions, which are run by a certified facilitation team.

Designed to support short demos that raise curiosity, as well as longer structured sessions with large audiences, e.DO Events can be run in virtually any location - from company headquarters or convention spaces to leisure resorts, theme parks and recreation halls - as innovative way to animate meetings, social and promotional events, conventions, ceremonies, roadshows and laboratories.



Below are some examples of e.DO Events possibilities:

e.DO Team Building	1 day	Through the e.DO Plant business game, several teams compete to achieve a common goal that requires cooperation, communication skills, information mapping, problem solving, resource optimization and time management.
e.DO Touch	1/2 day	As a part of a Family day, a fully equipped e.DO booth amazes parents and kids by showing the movements and functionalities of a robot.
e.DO 2 Play and learn hours		At a convention, delegates have the chance to drive e.DO in running basic tasks and movements, experiencing the power of Industry 4.0.
e.DO Graduation	2 hours	During a graduation ceremony, the chance to play with e.DO becomes a reward to deserving students as an appealing jump in the future of technology.

e.Do

CORNER

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FEEL THE AMAZING POWER OF OPEN ROBOTICS

COMAU



### in short

#### WHAT IS e.DO™ CORNER?

A stand-alone infotainment showcase with a fully operational e.DO.

#### WHO ARE THE BENEFICIARIES?

Anyone interested in new technologies, specifically event attendees, families and robot lovers.

#### **HOW DOES IT WORK?**

- 5 different activities
- 10-minute sessions each





e.DO Corner is a stand-alone infotainment showcase for museums, theme parks, robotics fairs and conventions where visitors can get a feel for Robotics, learning and performing a series of micro-sessions and movements with e.DO.

Attractive and strategically placed, e.DO Corner is designed to catch the attention of visitors of any age and interest level. By allowing kids, teenagers, families and event goers to put their hands on a fully functional e.DO robot, e.DO Corner can both satisfy curiosity, entertain and teach at the same time.

Each 10-minute micro session focuses on a different activity, from watching videos to assembling, programming and running e.DO.



Each e.DO Corner is composed of an e.DO, a tablet computer and relevant entertainment materials.



In the e.DO Corner, the user can select among:

- watching a short video introducing e.DO and its main functionalities;
- solving a quick exercise on how to assemble e.DO;
- driving e.DO through a series of movements (joints and cartesian);
- running a pick and place activity (using a specific interface);
- programming e.DO to describe a trajectory.





For further information and contacts:

edo.cloud/support-and-contacts/