UNIVERSAL ROBOTS

Education Program

Empowering tomorrow's workforce

Accelerate careers in manufacturing

Manufacturing is changing faster than ever, and today's students need to master new technologies to prepare their careers. These technologies redefine ways of working in every industry and generates millions of new job opportunities along the way.

Without professionals specialized in different fields of automation, these industries will not grow to their potential. Offering students skills in manufacturing and automation does more than create exciting education experiences – it is essential for the global economy too.

Accelerate your students' careers in manufacturing by building their skills to deploy, program, and operate robotic systems and automation. Our Education Program puts a cutting-edge collaborative robot (cobot) in your classroom, ensures full certification of your teachers and delivers a course curriculum specifically designed through our UR Academy by our expert team of robotics instructors.

We will help your public or private school, college or university embrace the changing world of work and give your students hands-on experience of designing, implementing and maintaining robotics and automation solutions. Our quality training is adapted to the changing challenges of Industry 4.0 and the needs of tomorrow's employees in the industrial sector.

In 2008, we pioneered the first commercially viable lightweight collaborative robots. They are flexible, simple to program and laid the foundation for affordable automation for companies of all industries and sizes. Our cobots free employees from dangerous, dirty and dull tasks, and help boost business productivity. Today, over 50,000 of our cobots work side-by-side with humans around the world.

>

Sign up to the Education Program:
universal-robots.com/education

"Cobots are perfect in teaching environments, not just for safety reasons but also because of their easy programming software and flexible approach."

Giacomo Palmieri
Professor, Università Politecnica delle Marche, Italy

The Universal Robots Education Program: What You Get

Our robotics program brings collaborative robotics to life in your classrooms. It gives your students hands-on, practical experience of designing, implementing and maintaining the kind of automation solutions that are redefining the world of work today.

The program kit contains everything you need to start delivering innovative and effective robotics courses:

Learning platform (LMS)

Built on our UR Academy platform, the Learning Management System (LMS) allows you to deliver and manage the course from a single platform that not only enables 24/7 access to teaching materials but creates a centralized place to submit work, deliver assessments and track student performance.

Hardware kit (cobot)

We put innovative cobot technology right into the hands of your students. Every kit contains one cobot as well as a range of additional equipment such as a conveyor belt and training accessories to simulate different industrial environments.

Teacher training

Our specialized four-day training course will ensure that your teachers, professors and trainers are not only certified cobot instructors but also that they have the skills and knowledge to show your students all the ways our cobots can be used in industrial environments.

Teaching materials

We provide a range of industry-leading materials, including course materials that address general concepts related to industrial and collaborative robotics, practical work and exercises, solutions for teachers with comments and exam models to track performance.

> **“The collaborative robots are benefitting our learners, the college and local manufacturers as we look to upskill and increase opportunities for the valued manufacturing workforce in the UK.”**

Barry Skea
Head of Science & Technology, New College Lanarkshire, UK

Our Learning Platform (LMS)

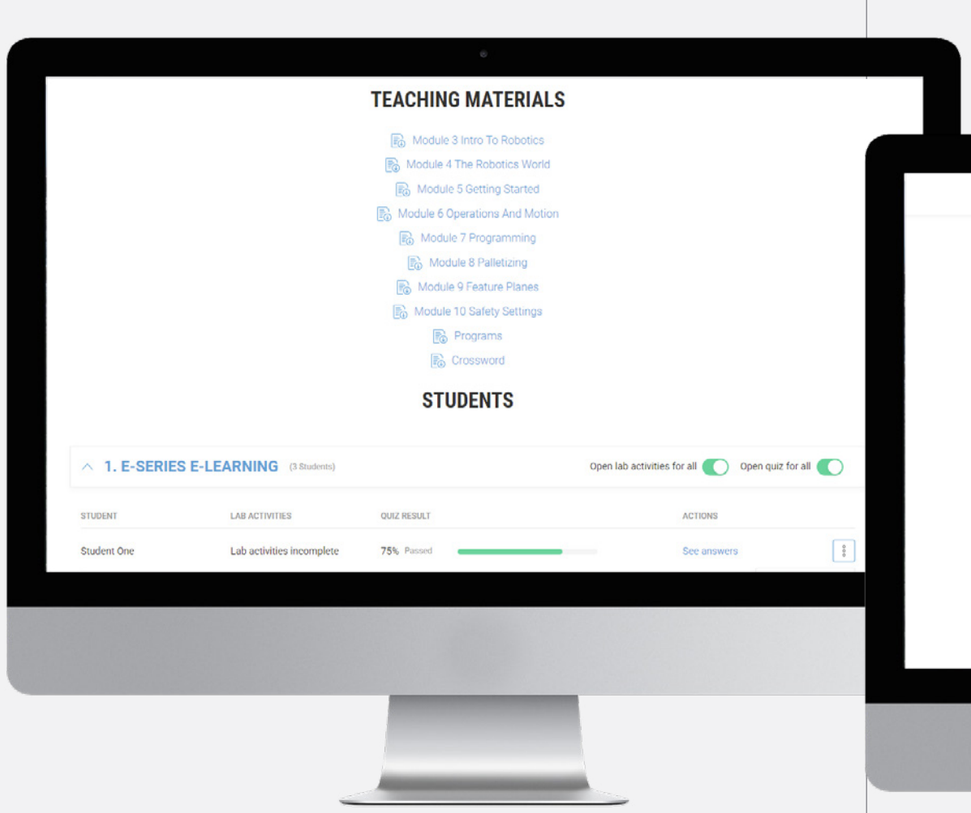
Available on the UR Academy platform, our Learning Management System (LMS) is a premium add-on feature designed specifically for the education sector. It provides a single place for teachers to create and manage their courses, assign modules to the students and track course completion and progress.

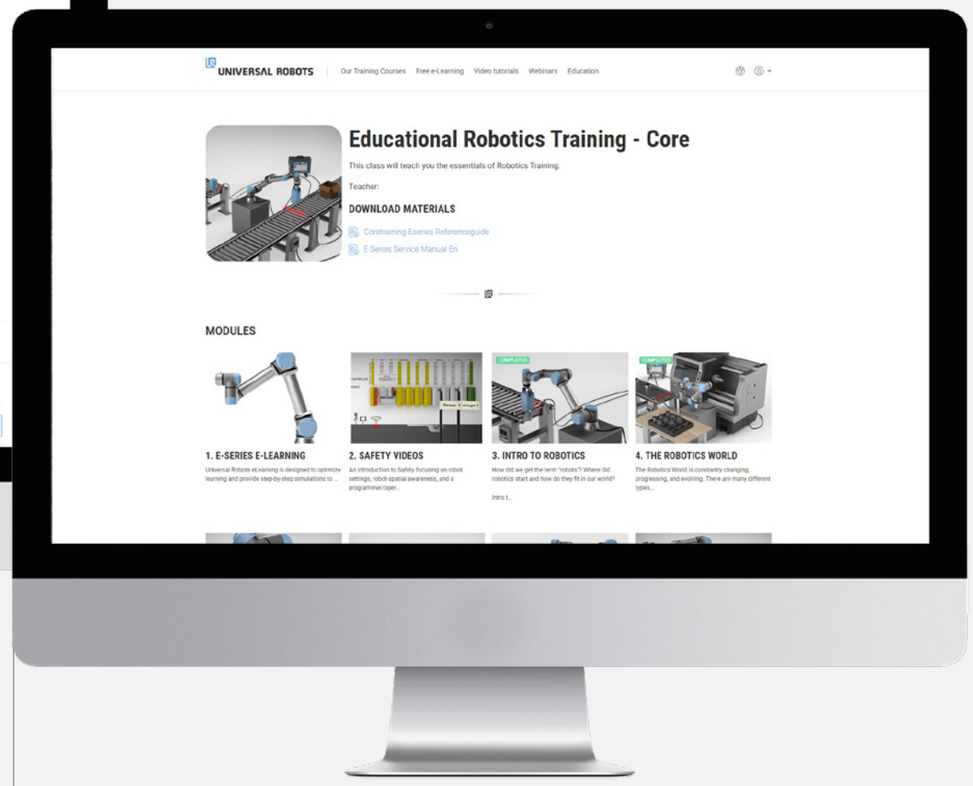
Its features include:

- Access to downloadable teaching materials
- Create classes and decide on start/end dates
- Assign courses to students
- Monitor courses and student progress
- Certify successful students

We want to provide the most comprehensive course offering within the industrial automation market. To do so, we will continue adding more features and modules to the platform to ensure it provides students with the most up-to-date knowledge and insight possible.

Teachers to access teaching material and follow the progress of students enrolled in the class.





Students to see their available training modules and their progress.

Our Hardware Kit

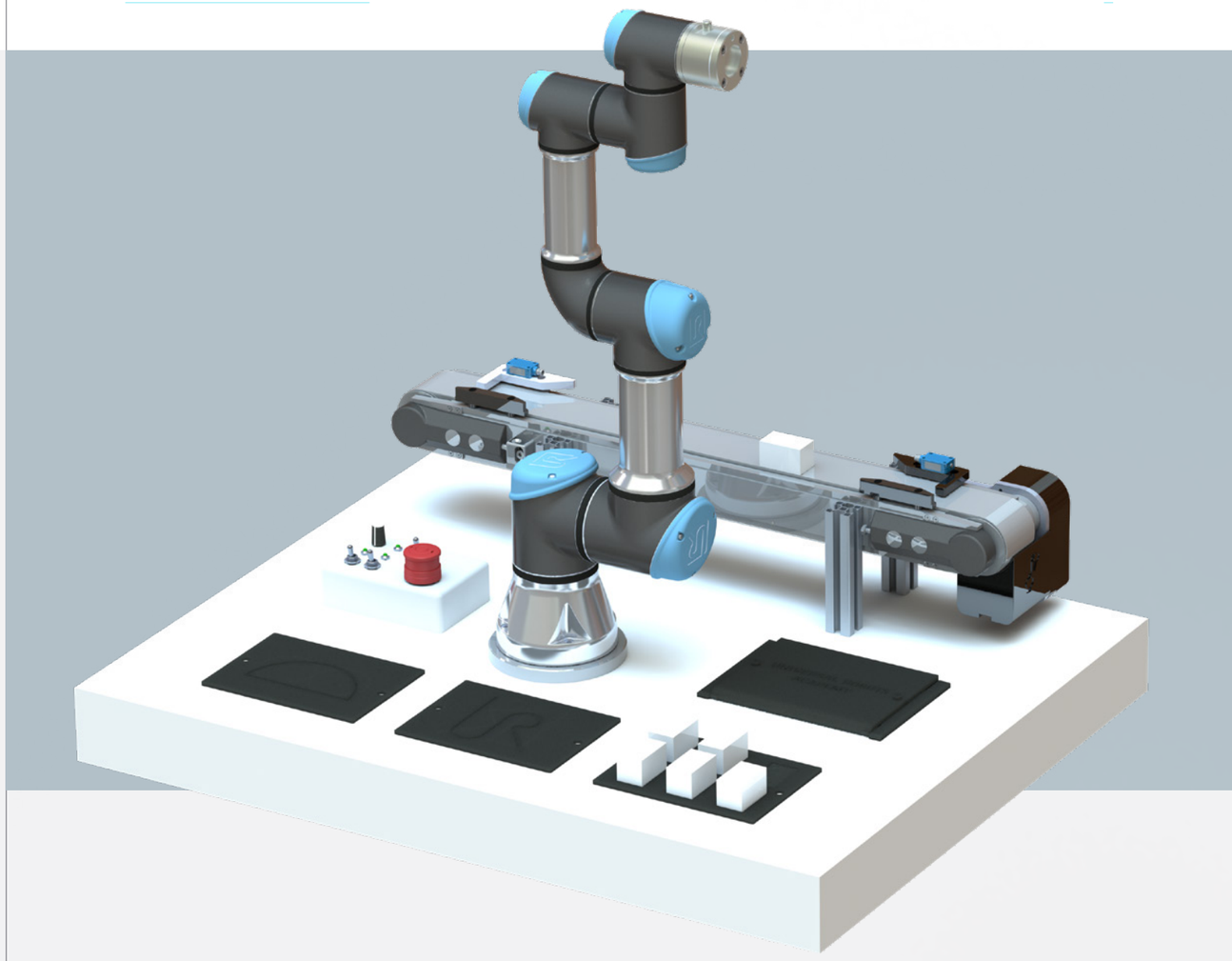
Robotics isn't something abstract to be studied from a distance – it's something that requires hands-on experience, experimentation and play to get to grips with. That's why our hardware package makes it easy to reproduce a variety of common robot deployments in your learning environment.

Our hardware enables schools to teach technical knowledge about automation with practical and contextualized learning outcomes.

Each hardware kit contains:

- A cobot from the e-Series family range: UR3e,UR5e, UR10e, UR16e
- A conveyor belt with corresponding sensors
- 3D printed training plates for simulating different applications
- An I/O simulator for digital inputs, outputs, and safety inputs
- The UR offline simulator

While our course prioritizes hands-on experience, we also know that classroom time can be limited for students. Our offline simulator means that they can continue to write and test programming on the real interface of your cobot when not in the classroom. The programs created on a PC can then be transferred to the cobot and tested in real-life too.



"Students are eager to get their hands on a robot and play with it. They appreciate the easy setup – as well as how easy they can then attach their own hardware or software developments to it."

Christian Schlette
Professor, Vice section head, SDU Robotics, Denmark

> **“In my opinion, the ability to connect the cobot with any other device, real or simulated, makes students customize the work they want to do, which increases their motivation.”**

Jose Maria Sabater Navarro
Teacher, Catedrático de Universidad, Universidad Miguel Hernández de Elche, Spain

> **“Having modern technology, such as robots, available at our university allows students to be trained in a field that is in high demand and it allows companies to use the university as a robotics training facility for their own staff.”**

Thomas Carron
Student, France

Collaborative robots are designed to transform manufacturing and production environments. They are also transformative tools for the classroom.

Fit for classrooms

UR’s robot arms are designed to automate in tight spaces. We’ve removed many pinch points found in traditional robots, and our lightweight, small-footprint robot arms minimize the risks of working with robots in group settings, often without the need for costly safety fencing. The Universal Robots e-Series also runs on standard 110 volt power, making it easy to move a cobot station between classrooms or across campus.

Minimal maintenance

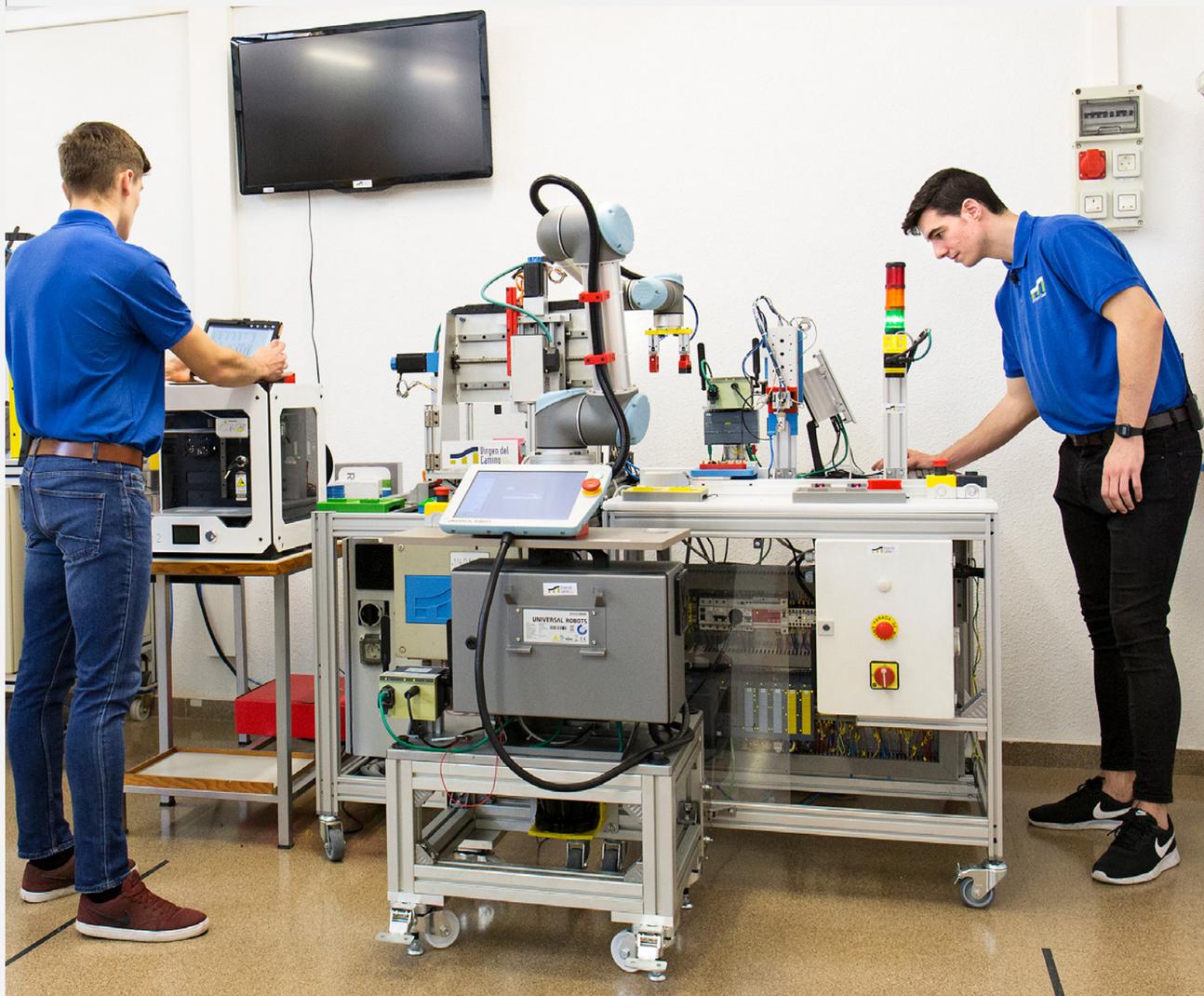
Universal Robots has removed common maintenance headaches for classroom teachers. No need to replace batteries in the programming controller, and no need to re-grease joints before the start of every school year. The e-Series is designed to minimize downtime on factory floors, so in the classroom, students and teachers can focus on learning year after year.

Prepare for power users

An intuitive touchscreen powers UR’s award-winning programming software, PolyScope. Programming on the touchscreen teach pendant removes latency between building and running programs, and even provides a richer interactive environment for students. Programmers can quickly select between real-time interactive 3D models, program logic, and program wizards, to help students familiarize themselves with many interfaces they’ll encounter in manufacturing careers.

Always up to date

PolyScope updates are free for life, and sent to users every quarter. With the automation landscape changing rapidly, teachers can rest easy knowing their cobot investment will always provide students with the exact robotics experience that awaits them in their careers. The Learning Management System (LMS) in UR’s Education Program is also backed by our award-winning UR Academy platform. This means schools, colleges, and universities can be sure their students are accessing the same materials and resources that are transforming workplaces around the world.



Our Teacher Training

Our program doesn't just provide students with a fun and immersive way to learn about robotics and automation, it is also an opportunity for teachers to upgrade their knowledge too. That's why teacher training is a core component of our offering.

Our teacher training courses help teachers become skillful cobot users and educators. The training is structured in the following way:

- Four days of complete online or in-person teacher training delivered by a certified Universal Robots trainer to demonstrate how to use the different characteristics and functions of cobots in real industrial environments
- Hands-on exercises to demonstrate technical skills and apply the Universal Robots Training Methodology
- Get in-depth understanding of the curriculum

Teacher certification

Educators will receive an industry recognized UR Academy certificate allowing them as teachers to certify their students that have completed the full UR educational curriculum.

Your student's certification

The certification awarded to your students meets industry needs and shows potential employers that your students can:

- Mount the robot into the workspace or product line
- Build and optimize programs for several typical applications such as pick & place, palletizing, polishing or dispensing
- Connect and handle peripheral equipment, such as sensors, grippers or conveyor belts
- Use online tools to help with application programming
- Understand and can apply robot safety

"I attended a train-the-trainer remote learning course where the trainer showed me all the capabilities of UR Academy. I am thoroughly impressed with the quality of the training materials that I received."

Adam Paisie
Robotics & Automation Instructor, Delaware, USA

Our Teaching Materials

We want to make it as simple as possible for you to show your students the possibilities that robotics and cobots offers them and the companies they build their careers with too. That is why we'll provide you with all the materials you need to deliver the course. This includes teaching materials, student activities, elarning, videos and quizzes and tests.

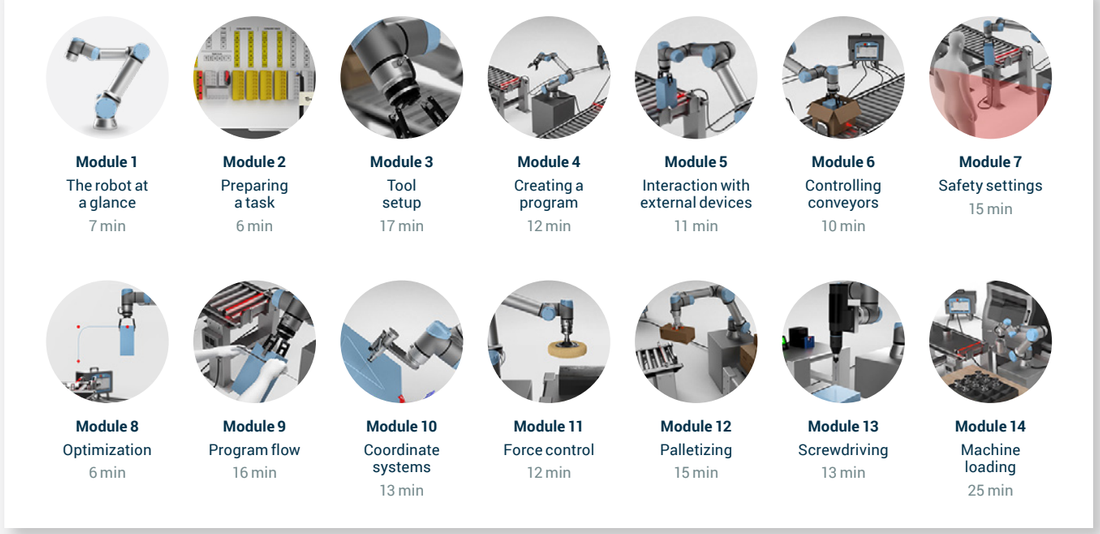
"The Academy has added a considerable number of resources over the past few years. The online access, Power Point Presentations, quizzes, videos, notes and the labs that integrate the UR platform online and in the remote academies is awesome. The video tutorials are another excellent resource to use in the classroom."

Nils Anderson
Robotics Instructor, ONC BOCES, USA

Online Training

The Universal Robots Online Academy helps you integrate robotics education into your learning environment in an engaging and intuitive way.

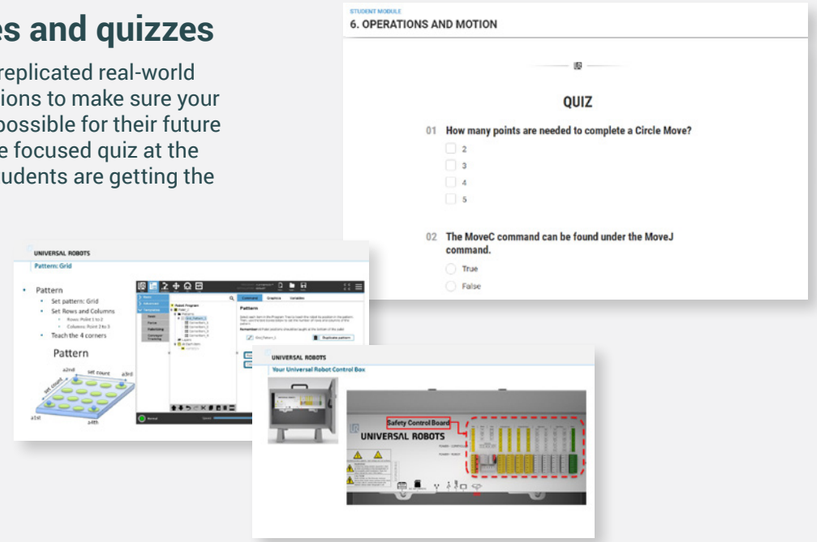
The 14 modules cover everything from configuring end effectors, connecting inputs and outputs, creating basic programs, and applying safety functions to a robotic process. The online modules support your teaching in the classroom or lab and facilitate educators and students to learn in parallel with both real and virtual robots.



Module 1 The robot at a glance 7 min
Module 2 Preparing a task 6 min
Module 3 Tool setup 17 min
Module 4 Creating a program 12 min
Module 5 Interaction with external devices 11 min
Module 6 Controlling conveyors 10 min
Module 7 Safety settings 15 min
Module 8 Optimization 6 min
Module 9 Program flow 16 min
Module 10 Coordinate systems 13 min
Module 11 Force control 12 min
Module 12 Palletizing 15 min
Module 13 Screwdriving 13 min
Module 14 Machine loading 25 min

Hands-on activities and quizzes

All activities are designed to replicated real-world scenarios and cobot applications to make sure your students are as prepared as possible for their future careers. Lab activities include focused quiz at the end to make sure that your students are getting the most out of the course.



A program that benefits everyone

Our program is designed to provide your students with an immersive and unforgettable learning experience while also creating long-lasting value for teachers and institutions.

Teachers

Everything needed to train, assess and certify the skills of students:

- Engage students from a wide range of academic subjects
- Four days of teacher training
- Become a Certified Universal Robots Instructor
- Access to industry-leading learning materials
- Intuitive LMS to deliver courses and track student progress

Students

Developing the skills necessary to thrive in the workplaces of the future:

- Build and optimize programs for real-world situations
- Connect and manipulate peripheral equipment
- Learn to manage the robot safely
- Online tools and resources
- Receive an industry-recognized certificate

Education Managers

Developing the skills necessary to thrive Setting your institution apart and attracting new students:

- Suitable for public and private schools, colleges and universities
- Cost effective, safe and flexible
- A plug and play solution that can be up and running fast
- Position your institution as future-focused
- Drive growth in student numbers and revenue

> universal-robots.com/education

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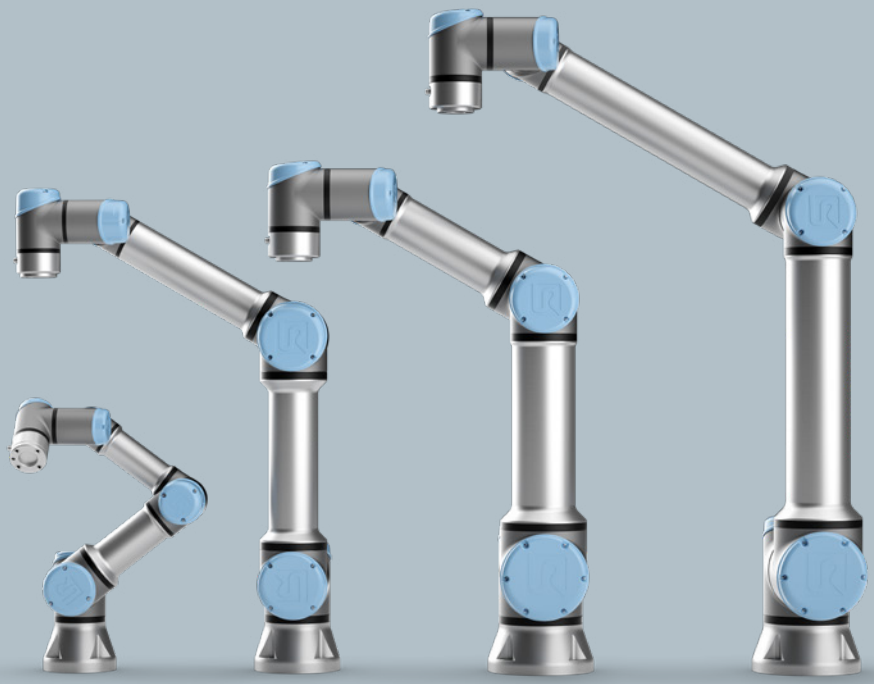
Let's empower the next generation of robotics innovators by putting leading technology into their hands.

"Robotics education is an essential skillset for the next generation of engineers, technicians, and operators. I think that exposure to robotics for my high school students is going to have a massive long-term impact."

Adam Paisie
Robotics & Automation Instructor, Delaware, USA



UR3e UR5e UR16e UR10e

Contact us to get started today

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