

### FACING THE GAP

Manufacturers are excited about automating their processes and gaining the advantages of increased output, improved product quality, and reduced costs. But as you explore advanced manufacturing technologies, you may find yourself running up against the skills gap.

If a shortage of advanced manufacturing workers is slowing your progress, don't despair. Collaborative robots (cobots) are helping bridge the skills gap in manufacturing operations from small and mid-sized companies to huge multinationals.

The top challenge for manufacturers is the gap between the demand and availability of workers who have experience as robot operators, programmers, engineers, and maintenance technicians to keep automated factories humming.



# EASY-TO-USE COBOTS SUPPORT YOUR AUTOMATION PLANS

Cobots are one of the easiest forms of automation to deploy. They help reduce the skills gap because your existing employees can program, operate, and maintain them with no previous experience. The out-of-box experience for an untrained operator to unpack a UR robot, mount it, and program the first simple task is typically less than an hour.

### How cobots reduce the skills gap:

- Require no previous experience to program and operate
- Reduce the number of operators for repetitive, dull or dangerous processes
- Build workforce skill level and move employees into higher-value positions
- Add value to processes to support ongoing success



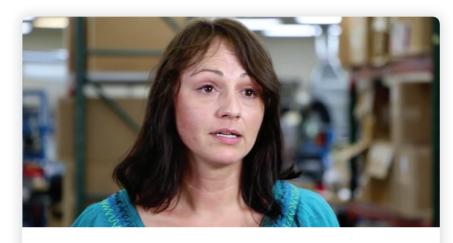
## COBOTS REQUIRE NO SPECIAL SKILLS OR EXPERIENCE



**Lars Meldgaard Nielsen**BJ-Gear, Denmark



Before we got the Universal Robots, I stood 8 hours a day at the same machine and didn't have any other work assignments. But the robots have enabled me to be more flexible and take on new tasks. It's also made it more interesting to come to work as you learn to program the robots, which is really fun."



Sebrina Thompson
Scott Fetzer Electrical Group, USA



If you can work a smartphone, you can pretty much work these robots."



**Morten Nymann** Nymann Teknik, Denmark

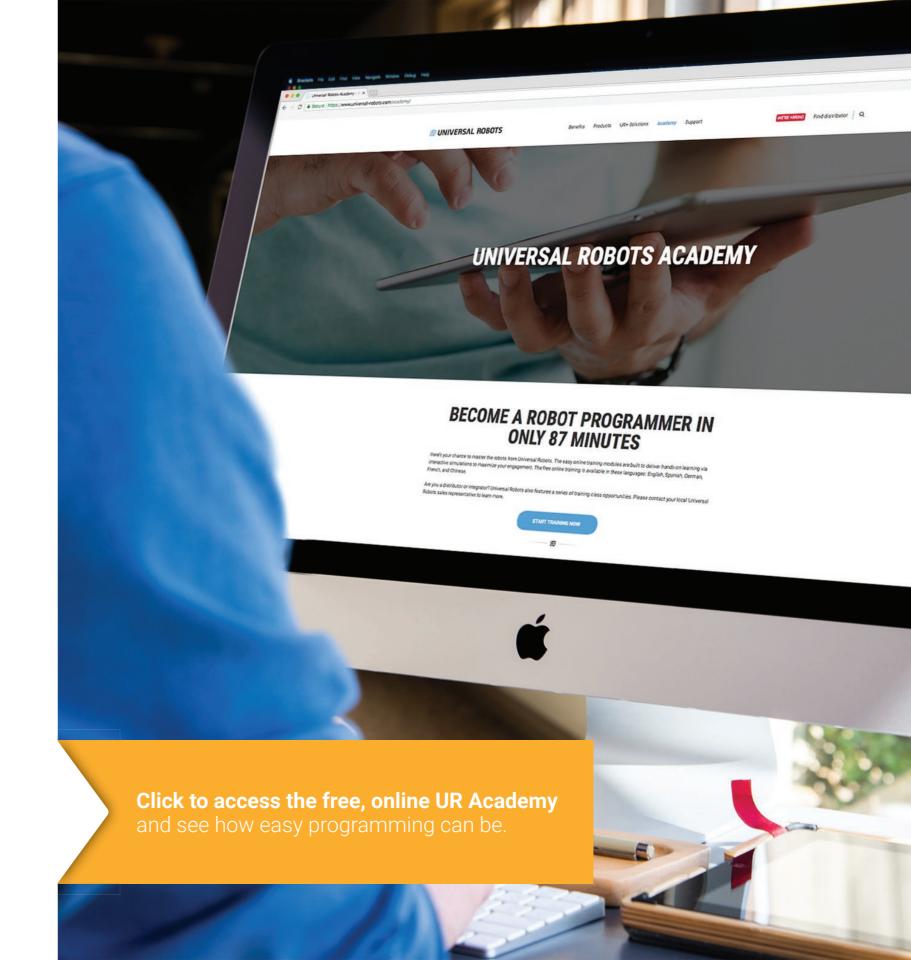


We simply took the robot out of the box and plugged it in. In an hour and a half, we had created the first program. After seven hours, the robot was working in production. My employees taught themselves how to program it."

# REACH NEW HEIGHTS WITH EASY-TO-MASTER COBOT TRAINING

Free online training from the Universal Robots Academy helps current employees become successful cobot programmers and integrators in less than 90 minutes. Six short interactive modules cover all the basics of robot logic, set-up, programming, interfaces, and safety.

Once they've mastered the basics, your employees are ready to implement advanced cobot applications in the future. Experienced employees can use information on the UR support website to add sophisticated programming and interfaces to meet specific application needs.





### UNIVERSAL ROBOTS ACADEMY HELPS WORKERS KEEP UP

Adam Hessling

Task Force Tips, USA

My background is all in CNC programming, but I just used the Universal Robots support website and got a lot of good information from there and wound up being able to put together the two-robot machining cell doing the hose couplings without any external help."



**Tim Hossler**Whirlpool Corporation, USA

The UR Academy modules will be the basic foundation for all UR robot training here at Whirlpool. I really liked the interactive approach...[that] makes it very hands-on and transferable to what we would actually be doing here at our plant."



# COBOT TRAINING GIVES WORKERS THE SKILLS EMPLOYERS NEED



We can present it to 5th graders who can start programming within a few minutes. Or take it into a high school setting and have the students do more advanced motion controls... Or we can teach it in the adult classroom with many of our local manufacturers interested in having their employees up-to-speed on programming their own UR robots."



Ritch Ramey RAMTEC, USA

We always want to stay ahead of where manufacturing is going to ensure that when our students leave this facility, they can use the equipment adapted by industry."

## GET FROM HERE TO THERE, QUICKLY AND EASILY

The skills gap shrinks if you can reduce your need for outside integration resources or trained internal experts. Luckily, the market growth for cost-effective, flexible, and easy-to-use cobots has created a vibrant eco-system to simplify cobot integration.

Universal Robots+ is an online showcase of everything you need to turn a UR robot into a customized automation solution. You'll find end-effectors, software, and accessories that are guaranteed to integrate perfectly with UR robots.



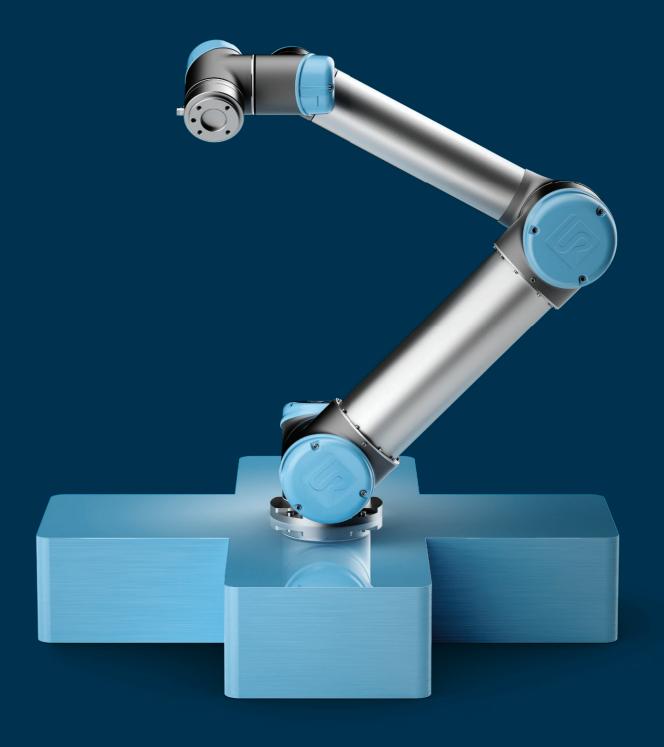






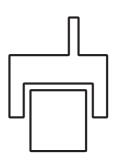






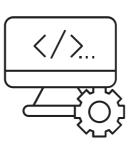
UNIVERSAL ROBOTS+

## MATURE ECOSYSTEM SIMPLIFIES INTEGRATION



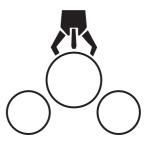
#### **Accessory components:**

Hardware products, such as cable guidance, protective covers, force/torque sensors, communication modules, vision systems, and HMI panels



#### Software:

Plug-ins developed with the URCaps Software Development Kit (SDK), PC programs such as simulators, or UR-Library Plug-ins for 3rd-party software such as PLC programming



#### **End-effectors:**

All types of end-of-arm tooling (EOAT)

Click to see all the UR+ solutions

## DON'T LET THE SKILLS GAP SCARE YOU AWAY FROM YOUR AUTOMATION PLANS

Cobots can help you automate quickly, easily, and cost-effectively, with resources that bridge the gap with minimal effort. You gain all the advantages of automation, so you can reinvest in growing your business.

Existing employees can be moved to new, more valuable roles, which helps build morale and loyalty. And you can start simply and move to more advanced implementations over time so you're never stuck in one place.



# WE MAKE IT EASY TO GET STARTED!



Request a cobot demo from a distributor in your area and find out just how easy it can be to get started with cobots.

**REQUEST** a cobot demo



Universal Robots was co-founded in 2005 by the company's CTO, Esben Østergaard, who wanted to make robot technology accessible to all by developing small, user-friendly, reasonably priced, flexible industrial robots that are safe to work with. Since the first robot was launched in 2008, the company has experienced considerable growth with the user-friendly robots now sold in more than 50 countries worldwide.

The company, which is a part of Teradyne Inc., is headquartered in Odense, Denmark, and has subsidiaries and regional offices in the USA, Spain, Germany, Italy, Czech Republic, China, Singapore, India, Japan, Taiwan and South Korea.

For more information, please visit www.universal-robots.com













