

Using UR cobots in industrial processes



Cobots from Universal Robots can provide easy access to the consistent speed, repeatability and force control essential for a wide range of industrial processes. This enables you to automate and to increase productivity as well as to ensure higher – consistent – levels of quality in key manufacturing processes such as gluing, dispensing, painting, grinding, deburring and polishing.

Savings and benefits

By ensuring rapid ROI even when working with small batches, these cobots make automation financially viable in processes where traditional industrial automation is inconceivable. The remarkable versatility and ease of use of these cobots save on installation time and programming costs right from the very first process, with additional savings by enabling easy reprogramming of the cobot or even re-deploy it to a different process.

Easy to integrate

An easy-to-use interface enables process operators to transfer their expertise and the benefits of their practical experience to the built-in software. No programming skills are needed – operators just move the cobot arm into the right position by dragging it. This automatically saves all the process positions and operations into program waypoints.

Operators can then adjust and alter the ways the process is carried out – whenever needed – all by themselves.

Compatibility counts

Almost any tool can be mechanically and electrically attached to the cobot for automated use. Universal Robots+ ecosystem offers a range of compatible products to choose from.

Business benefits

- Reduce waste and increase accuracy by using a cobot for tasks such as gluing, dispensing and welding
- Reduce cycle time and improved product quality
- Easy-to-understand programming by simply moving the cobot into the required positions
- Small and light in weight, easy to install and use even in restricted spaces
- Improved working conditions because operators no longer have to carry out tasks that are repetitive or dangerous

Advantages

- Very small footprint (128 mm, 149 mm or 190 mm diameter)
- High pose repeatability (UR3e and UR5e: ± 0.03 mm, UR10e: ± 0.05 mm)
- Easy-to-use software interface
- Standard mechanical and electrical interfaces built in
- Built-in force control

Contact

Want to find out more about how cobot-assisted process work can help your business?

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Cobot-assisted process operations in your industry

Companies in many different industries use cobots from Universal Robots in process operations of a multitude of kinds. Those listed below are especially common. If you don't see your industry included, contact us to find out how a UR cobot can help with your particular business operations.

Furniture and equipment

- High levels of precision and consistency, at the same time as reducing margins for error
- Glitch-free fit and better finish, as well as greater overall productivity
- Less risk of injuries and RSI for workers moving materials, assemblies and equipment
- Frees up workers from tedious, physically stressful labor-intensive work processes

Automotive manufacturing

- Makes it possible to automate tasks inconceivable with traditional industrial robotics
- Faster throughput on assembly lines
- Exceptional flexibility – average set-up times of only half a day
- Lightweight, space-saving and easy to re-deploy to new uses without altering production layouts
- All the advantages of advanced robotic automation, with none of the traditional added costs

Molding

- Ideal for all areas of plastic and polymer production, including de-gating, PCB loading/unloading, and pick & place assignments
- Reduce employee exposure to noxious gases
- Enhance safety by protecting assembly line workers from contact with plastic shavings and sharp objects
- Increase production capacity, while reducing repetitive assembly work for employees
- Lightweight, space-saving and easy to re-deploy to new uses without altering production layouts.

CASE Franke Küchentechnik AG

Country Switzerland

Cobot UR5



Result

Swiss kitchen manufacturer Franke uses a UR5 cobot to streamline its production of kitchen sinks, precision-gluing mounting blocks on each side. The UR5-based setup has been in non-stop operation since November 2011, producing more than 10,000 sinks a year. The cobot ensures that the pressure applied, the amount of glue used and the overall quality of the gluing process are all consistent.

See the video:

universal-robots.com/case-stories/franke

CASE Bajaj Auto Ltd

Country India

Cobot UR5



Result

Bajaj Auto Ltd. was the first Indian company to implement collaborative robots in automotive assembly, and now uses more than 100 cobots to drive its position as the world's third-largest motorcycle manufacturer. The company was able to overcome space constraints by using ceiling-mounted cobots to relieve workers from tasks involving heavy lifting and repetitive operations.

See the video:

universal-robots.com/case-stories/bajaj-auto

CASE TCI New Zealand

Country New Zealand

Cobot UR3 and UR5



Result

The new setup provides better quality assurance, enabling staff to focus on less monotonous tasks. Production proceeds 24/7 with no need to worry about things that might cause stoppages.

See the video:

universal-robots.com/case-stories/tci-new-zealand



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