

Using UR cobots in industrial pick & place setups



Pick & place operations are one of the automated tasks for which cobots from Universal Robots are most often used. Our cobots are ideal for a wide spectrum of such setups, from those requiring high positioning accuracy to those requiring a vision system to locate the part. The high repeatability provided by UR cobots ensures exceptional accuracy in all kinds of automated pick & place taskings.

Easy to teach – and learn

To teach the cobot where the required parts are located, the operator just drags the cobot arm to the required positions. Users can also program pick & sequences using a template in the Polyscope interface, working either with the actual cobot or by using the free URSim offline simulator. This means only a bare minimum of training is ever needed. Special “wizards” are also

available for practical guidance on things like stacking and destacking.

Easy to integrate

For more complex setups, a wide range of easy-to-install and easy-to-use specialist tools and capabilities are available from Universal Robots+. These include industry-proven camera systems for identifying exactly where each item is, and different types of grippers and other tools needed for effective pick & place operations. These pave the way to effective automation even with very small production batches.

Mounted and moved anywhere

UR cobots can be mounted virtually anywhere, even in tight spaces. Their small footprint also means they are easy to deploy and re-deploy for new pick & place taskings, whenever needed.

Business benefits

- Improve productivity, consistency and flexibility
- Increase accuracy and reduce wastage
- Deal with operational requirements even after employees have gone home
- Re-deploy easily as prompt response to changing requirements
- Free up employees for higher-value work

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 integrate with grippers, vision systems, force sensors, etc. from Universal Robots+
- Fast, easy programming (online and offline), dedicated wizards
- Easy to install anywhere – can operate without a cage (subject to risk assessments) even in space-constrained areas

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 a wide range of industries use cobots from Universal Robots in pick & place work of many different 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.

Pharmaceuticals and chemistry

- Certified for use in Class ISO Class 5 clean rooms
- Complies with stringent industry specifications for accuracy, consistency and hygiene
- Ideal for mixing, counting, dispensing and inspection for business-critical products
- Ideal for sterile handling and assembly of small, delicate parts used in prosthetics, implants and medical devices
- Easy, rapid deployment – average set-up times of only half a day

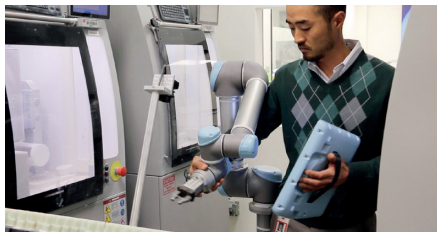
Automotive manufacturing

- Automate tasks not even thinkable with traditional industrial robotics
- All the advantages of advanced robotic automation, with none of the traditional added costs
- Faster assembly line operations
- Greater manufacturing flexibility – set-up time normally only half a day
- Lightweight, space-saving and easy to re-deploy to new uses without altering production layouts

Science and research

- Easy for research institutes, universities, etc. to afford
- Implement innovative ways to gather and analyze key data
- Relieve human researchers from dirty, dangerous and repetitive tasks
- Improve working conditions and safety, with less repetitive strain and fewer accidents
- Provide best possible conditions for study, processing and analysis, due to consistency and repeatability
- Ideal for processes and workflows requiring exceptional accuracy, with miniscule deviation

CASE Glidewell Laboratories
Country USA
Cobot UR5



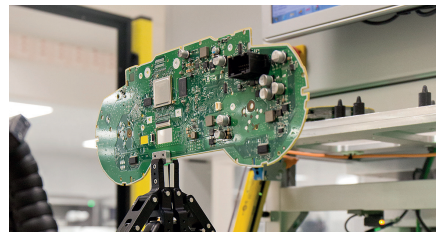
Result

Production-cycle time for dental crowns cut from 27 to 18 hours, at the same time as achieving better, more consistent quality. Employees freed up for complex tasks.

See the video:

universal-robots.com/case-stories/glidewell-laboratories

CASE Continental Automotive Spain
Country Spain
Cobot UR10



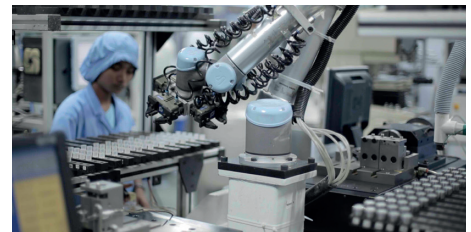
Result

Greater productivity by reducing changeover times from 40 to 20 minutes. Simple programming and implementation – without the help of outside experts – enabled Continental to keep decision-making control in-house. Operators no longer have to carry out manual tasks, and are freed up to apply their skills better.

See the video:

universal-robots.com/case-stories/continental

CASE Aurolab
Country India
Cobot UR5



Result

15% increase in output of intraocular lenses, with greater verified product reliability and minimal costs – no AMC (Annual Maintenance Contract) required and extremely low power consumption. Cobots have paved the way for 7 (or more) new products where flexibility, productivity and reliability are required.

See the video:

universal-robots.com/case-stories/aurolab



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