

# Industrial Robots in Automation

## Complete Solutions

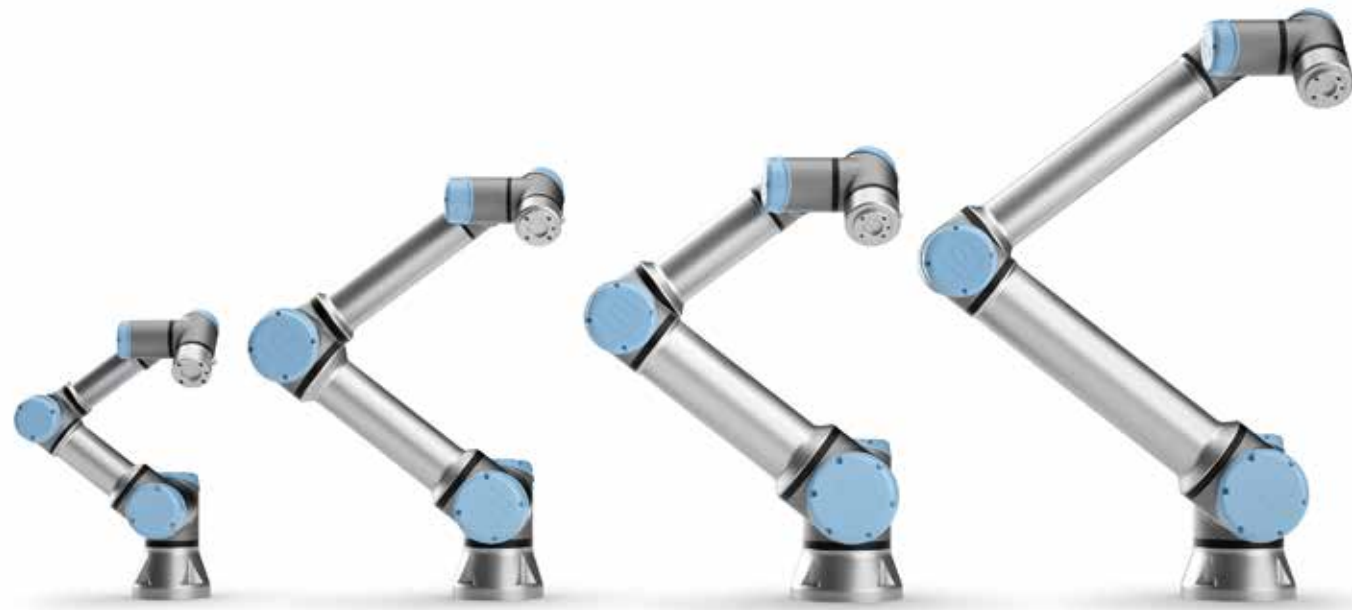






# UNIVERSAL ROBOTS Collaborative Industrial Robots

## Why Choose Cobots?



### UR3e

has a compact form factor making it a good fit for tight workspaces. Its small footprint is great for bench-tops or built directly inside machinery, making it well suited for light assembly and screwdriving applications. UR3e is also offered as an OEM robot system and with a 3-Position Teach pendant, also offering a  $\pm 360$ -degree rotation on all wrist joints, and infinite rotation on the end joint.

Reach: 500 mm / 19.7 ins  
Payload: 3 kg / 6.6 lbs  
Footprint:  $\varnothing$  128 mm  
Weight: 11.2 kg / 24.7 lbs

### UR5e

is designed to grow in capability alongside your business, a spring board to improved product quality and productivity. Equipped with intuitive programming, versatile use and an almost endless list of opportunities for add-ons, the UR5e is able to complement production regardless of your industry, company size or product nature.

Reach: 850 mm / 33.5 ins  
Payload: 5 kg / 11 lbs  
Footprint:  $\varnothing$  149 mm  
Weight: 20.6 kg / 45.4 lbs

### UR16e

is built for heavy duty tasks including machine tending, material handling, packaging, material removal, and screw and nut driving applications. It handles an exceptional 16 kg of payload that is especially useful for carrying heavy end of arm tooling and can lift multiple parts in a single pick, making tasks much more efficient by achieving shorter cycle times.

Reach: 900 mm / 35.4 ins  
Payload: 16 kg / 35.3 lbs  
Footprint:  $\varnothing$  190 mm  
Weight: 33.1 kg / 73 lbs

### UR10e

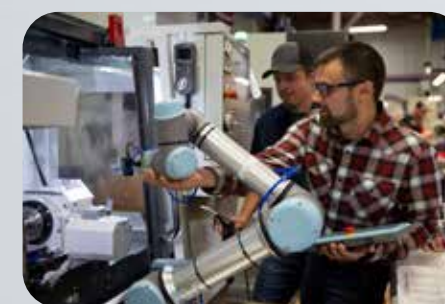
is an extraordinarily versatile collaborative industrial robot, delivering both high payload lift and long reach, making it well suited for a wide range of applications in machine tending, palletizing, and packaging. UR10e is also offered as an OEM robot system and with a 3-Position Enabling Teach Pendant.

Reach: 1300 mm / 51.2 ins  
Payload: 12.5 kg / 27.55 lbs  
Footprint:  $\varnothing$  190 mm  
Weight: 33.5 kg / 73.9 lbs

Manufacturers everywhere are facing unprecedented challenges in productivity, quality assurance, manpower shortages and logistics. Universal Robots, in close collaboration with UR+ partners, provide a range of automation systems designed to help businesses overcome those challenges, improve output and quality, and get the most from their workforce of all sizes.

Collaborative robots (or 'cobots') offer several advantages over traditional robots. Collaborative Industrial robots provide a cost-effective, flexible, and safe automation solution for a wide range of production tasks.

- Bin Picking
- Injection Molding
- Milling
- Pick and Place
- Screwdriving
- Deburring
- Kitting
- Packaging
- Polishing
- Sealing
- Drilling
- Lab Analysis
- Painting
- Quality Inspection
- Soldering
- Gluing
- Machine tending
- Palletizing
- Routing
- Testing
- Grinding
- Measuring
- Part Insertion
- Sanding
- Welding





Want to optimize your productivity, optimize internal workflows and increase your competitiveness?



## MiR100

- Highly flexible
- Can be mounted with customized top modules such as bins, racks, lifts, conveyors, collaborative robot arms & more
- Top modules are easy to change allowing the robot to be easily redeployed for different tasks

Footprint: 890mm x 580mm x 352mm | Payload: 220 lbs | Towing Capacity: 660 lbs



## MiR250

- Most agile of AMR's on the market
- Highly adaptable for challenging environments
- Small footprint allows it to drive in spaces as narrow as 80 centimeters

Footprint: 580mm x 800mm x 300mm | Payload: 551 lbs



## MiR500

- Safely maneuvers around people and physical obstacles
- With its advanced technology and sophisticated software, the robot autonomously navigates to find the most efficient path to its destination
- Equipped with the latest laser-scanning technology that delivers a 360-degree visual for optimal safety
- 3D cameras have a range of 30-2,000 mm above floor level to detect pallets

Footprint: 1350mm x 909mm x 320mm | Payload: 1100 lbs



## MiR1000

- Equipped with the latest laser-scanning technology that delivers a 360-degree visual for optimal safety
- Two 3D cameras in the front enable the robot to see from 30 to 2,000 mm above the floor
- Two sensors in each corner contribute to the robot's ability to see pallets and other low obstacles difficult for most robots to detect

Footprint: 1350mm x 920mm x 320mm | Payload: 2200 lb

## MiR Accessories

- MiR/UR Synchronization UrCap to connect a MiR and UR robot
- MiR Hook (for towing, picking up and unloading jobs)
- Shelf Carrier top module
- Pallet lift
- Shelf Lift
- Charging Stations
- Camera



Bring your internal logistics up to speed with autonomous robots that automate repetitive and injury-prone material transportation and work safely alongside your employees to boost productivity.

The mobile robots from MiR are autonomous mobile robots (AMR's) designed to optimize productivity in logistics and manufacturing operations. The highly adaptable mobile robots can be deployed and redeployed in hours and move anything from small parts to heavy loads and pallets.





# Streamline with UR+ Application Kits

Whether you're a beginner or an expert, UR+ application kits will get you there faster.



## Assembly Kits



### Multifunctional Robot Screwdriver with Screw Feeder

- Easy out-of-the-box setup, programming, and deployment on any leading robot
- Highly versatile and flexible, with fast changeovers for a wide range of screw sizes and lengths
- Precise torque control and intelligent error detection ensure quality and consistency
- Embedded axis motion control simplifies programming, speeds setup, and improves quality



## Finishing Kits



### Surface Finishing Kit

Kit includes:

- Finishing Copilot, Bracket and Air Control Accessory
- Finishing Copilot Path Generator teaches a finishing path on a flat surface out of only 4 variable waypoints that adjust to the part's size
- Add custom weaving movements specific to your process in little time
- Program complex finishing trajectories by teaching fewer than 10 waypoints with the Finishing Copilot – generates a complete path and applies consistent cycle, whether curved or spherical
- Robotiq's Surface Finishing Kit is compatible with all Mirka and Dynabrade finishing tools to automate finishing processes on a wide variety of surfaces (wood, plastic, metal, fiberglass, solid surface, carbon fiber)



## Machine Tending Kits



### CNC Machine Tending Kit

Kit includes:

- Dual Hand-E grippers with an angled bracket (90°)
- Fingertips starter kit, including a fingertip extender for larger parts
- Machine Tending Copilot software, including Force Copilot and Contact Offset
- Robotiq Wrist Camera (optional), including the new Visual Offset function
- eLearning course on how to best use your kit



### Machine Tending Kit for CNC

- Design, build and automate your machine tending cell with Vention machine tending software
- Entirely configurable to your needs
- Equipped with intuitive operator interface for your brand of CNC - available with trays or drawers, and various end-of-arm tooling options
- Assembled in approximately 5 hours
- Enables tending of multiple machines without reprogramming the Universal Robots arm at each CNC
- Each tending programmed in 10 minutes using a code-free interface
- Can handle up to 80 parts
- Average return on investment of 6 months



Plus > Products

Filters

Clear all

All Featured Application Kits

Sort by: Relevance

Popular Views +

Applications -

- Bin Picking 29
- Brazing 8
- Cleaning 15
- CNC Tending 102
- Coordinate Measure Tending 13
- Cutting 8
- Deburring 26
- Dipping 7
- Drilling 11
- Education 9
- Glue 23
- Grinding 17
- ICT Tending 6
- Injection Molding Tending 22
- Inserting and Fitting 77
- Inspection 39
- Labelling 14
- Measuring 16
- MIG Welding 17
- Milling 14
- Nut Driving 9
- Packaging 86
- Painting 15
- Palletizing 57
- Polishing 26
- Press Tending 43
- Research 11
- Riveting 6
- Routing 11



### Easy Pick and Drive Screwdriving System .2 - 12 Nm

The easy, industry 4.0 ready automated screwdriving solution. This kit comes complete with a Desoutter CVIR controller and 1 of 3 ERS tool models available: ERS2, ERS6, ERS12.



### ActiNav Autonomous Bin Picking

ActiNav Autonomous Bin Picking combines market leading collaborative robots, a 3D sensor and autonomous robot motion control to solve unstructured bin picking and accurate placement for machine tending applications



### Robotiq Palletizing Solution

Ease-of-use is redefined with the Robotiq Palletizing Solution. Open the box, and the hardware and software is already connected and ready to install.



### Vectis Cobot Welding Tool

The Vectis Cobot Welding Tool helps manufacturers boost productivity amid the shortage of skilled labor by reducing the learning curve, setup time, risk, and cost of robotic welding



### Robot27 Dispense

Our easy to implement cartridge based dispensing kits rapidly turn the Universal Robot platform into precision dispensing machines.



### VGP20

VGP20 is the world's most powerful electric vacuum gripper, with payloads up to 20kg (44.1 lbs) and none of the cost, complexity, and maintenance of pneumatic grippers

THE COMPLETE PACKAGE. Your Application Solution. One Supplier. Many Options.



# Automation with UR+ Application Kits

*Make automation simple, fast and flexible with application kits designed for easy commissioning.*

## ActiNav

Next-Generation Machine Loading

**Next-Generation Machine Loading Solution**  
All-in-one. And all together more powerful.

ActiNav™ combines intelligent vision, real-time autonomous motion control and Universal Robots' world-leading cobots to deliver the core of a machine loading system. Whether used for simple bin picking tasks or more complex machine tending applications, ActiNav delivers a solution that's precise, consistent, intuitive and more agile than ever before.

Plan, pick and place parts with some of the highest accuracy, without collisions and without the need to stop – optimizing machine uptime and boosting productivity.

### Unmatched Precision - Even on Complex Parts

- 3.2 million 3D points in every scan
- Accurate path planning with the autonomous motion module
- Detect parts, day or night
- Optimizes motion trajectories to avoid collisions, joint limits and singularities
- Efficient path planning, on repeat
- Technology that adjusts to keep production on track - no need to program every step of the process or rely on programmed waypoints
- Easy to deploy, quick to perform
- Make updates fast
- Designed to fit any workspace
- Trusted to run unattended



## ROBOTIQ

### Bin Picking Kit

Robotiq. Pickit. Better together.



## ROBOTIQ

### Palletizing Solution

Simplicity Meets Flexibility

- Flexible – set up and reset-up quickly
- Connection between robot controller and 7th axis or box sensor already designed and programmed by Robotiq
- Set-up your application directly on the robot control device in 3 easy steps
- Faster ROI due to high-performance cycle-time
- Pick a wide range of boxes and an extensive range in height and dimensions on pallets
- Small footprint



## VENTION

### Palletizer

Cobot palletizing made easy.

Vention's cobot palletizers are comprehensive machine kits that are entirely configurable to your palletizing needs.

Design, build and automate your cobot palletizer with Vention and Pally (Vention design software).

- Available in one or two pallet configurations
- Custom palletizer solutions
- Code-free cobot palletizing app for Universal Robots
- Design resources available for end-of-arm tools
- Can be assembled in approximately 5 hours
- Each pallet sequence programmed in 15 minutes using a code-free interface

## New Scale Robotics

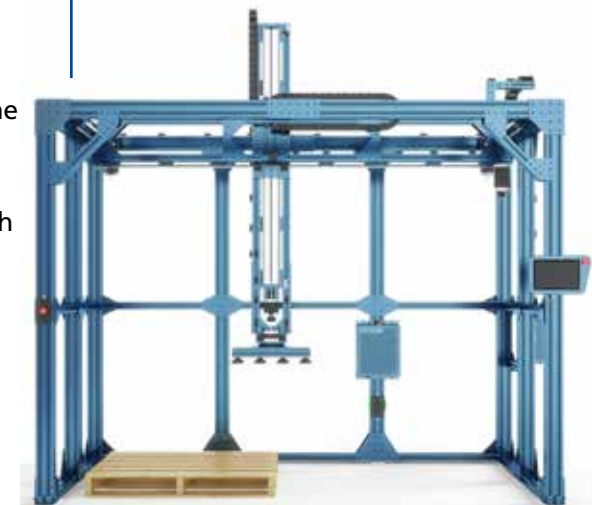
### Q-Span™ By New Scale Robotics

Automate small part handling, digital caliper measurements and data logging

Q-Span™ Workstation Kits let you automate QC measurements of small parts. The do-it-yourself robotic inspection tool offers fast ROI in high-mix, small-batch manufacturing. Easy to set up, easy to reconfigure for additional parts and processes.

Automation dramatically improves consistency and repeatability.

- Pick small parts with the robotic gripper/calipers
- Measure multiple dimensions in rapid succession using up to three gripper/calipers on one robot
- Sort and place parts based on measurements (pass/fail, bin)
- Record measurement data for statistical analysis and process control
- Automate in-line precision and process control



**THE COMPLETE PACKAGE. Your Application Solution. One Supplier. Many Options.**



# Your One-Stop-Shop for Industrial Robots

- Grippers
- Application Kits
- Software
- Vision

- Top Modules
- Robot Cells
- Accessories

## 80/20 Inc.

- Custom Collaborative Industrial Robot Cells (T-slot aluminum framing)
- Custom Mobile Industrial Robot Top Modules



## EasyRobotics®

- we move your parts

- Profeeder Plug and Produce Robot Cell System
- EasyPalletizer Platform
- EasyPlus Software
- EasyPedestal (to fixture any collaborative robot brand), Mobile Robot Platform



## FlexiBowl

- Flexible Part Feeder
- URcap (to control feeder from your robot)



- Magnetic Grippers



## ActiNav

Next-Generation Machine Loading



UNIVERSAL ROBOTS



## EWELLIX

MAKERS IN MOTION

- LIFTKIT (vertical positioning system for operating range extension of a collaborative robot, often used in palletizing applications)
- SLIDEKIT (linear axis for collaborative robots)



- AXIA80 Force Torque Sensor Package
- Manual and Automatic Tool Changer
- Axially-compliant deburring blade



## FESTO

- Electric Parallel Gripper
- Adaptive Shape Gripper Kit
- Vacuum Gripper
- 7th Axis (vertical or horizontal extender)
- Lift Platform for Mobile Industrial Robots



- Single Clamps or UR Clamp Kits for robot arm cable management, 7th Linear Axis



- Flexible Holder System for dress pack on robot arm



- Collaborative Robot Vacuum Tool



- Flexgrip Foam Vacuum Grippers



## New Scale Robotics

- Q-Span (automated small-parts measurement system)
- Precision Gripper/Caliper
- Multi-Tool Mount (mount up to three New Scale grippers)
- Metrology Fingertips (for precision measurement)





# Everything You Need In One Place

Industrial robots are being used extensively to provide a competitive edge in a wide variety of industries and applications. The integration of robotic components is essential for increased productivity, more efficient use of materials, improved safety, and reduced lead times. Ralph W. Earl Company partners with over 20 supporting lines of Universal Robots and MiR, allowing us the ability to design and assemble one cohesive solution.



- Flexible 2-Finger Grippers with Wide Stroke
- Gripper with built-in Force/Torque Sensor
- Gecko Single Pad Gripper
- Flexible Large-Stroke 3-Finger Gripper
- Soft Grade - Flexible Food-Grade Gripper
- Adjustable Electric Vacuum Gripper
- Compact Electric Vacuum Gripper
- Electric Parallel Gripper
- Eyes - Flexible, Adaptable 2.5D Vision System
- Screwdriver with Screw Feeder
- Sander
- Hex 6-Axis Force/Torque Sensor
- Quick Changer for Tooling
- Dual Quick Changer



- Industrial Robot Covers
- Disposable/Paint Robot Covers and Services
- Custom Cable, Conduit and Lift Table Covers



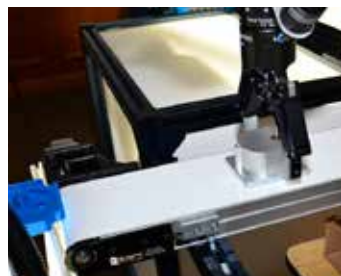
- Vacuum Gripper (Airpick and Epick)
- 2-Finger Grippers
- 3-Finger Adaptive Gripper
- Hand-E Adaptive Gripper
- Wrist Camera
- CNC Machine Tending Kit
- External Tool Finishing Kit
- Sanding Kit
- Surface Finishing Kit
- Palletizing Kit
- 3D Bin-Picking Kit
- Finishing Copilot (software)
- Force Copilot (software to operate the UR e-Series embedded force torque sensor)
- Insights (software to help you integrate your robot faster, allowing full control of the robot remotely)
- Product Config (software)
- Force Torque Sensor



- Integrator (integrated and installed CNC Machine Tending application)



- AS40 Conveyor (ideal as infeed or discharge conveyors for any robot application)
- IS300 Conveyor
- URcap (to control conveyor from your robot)



- Protective Coverings for Robot Arms
- Pendant Armor (cover for UR Teach Pendant)



- Top Roller Modules for Mobile Industrial Robots
- Top Cart/Rack Modules
- Top Lifter Modules
- Carts/Racks
- Docking Stations
- GuardCom System (eliminating receiving stations for good transfer)
- Top Roller with Built-In Lifting Mechanism (for MiR500 and MiR1000)



- Pneumatic Vacuum Gripping System FXCB (for corrugated boxes)
- Electric Vacuum Gripper ECBPM
- Lightweight Additive Gripper SLG
- Vacuum area gripping system
- Vacuum End Effector Starter Set



- Electric Grippers
- Co-Act Grippers
- Pneumatic Grippers
- Flex Grip (a complete gripping solution)
- Force/Torque Sensor
- Tool Changers



- Safety scanners
- 3D Belt Pick (3D vision sensor system for conveyor belt picking)
- 3D Vision System (tailored to Bin Picking)
- 2D Vision sensor (for part localization and identification, tailored for robot guidance applications)
- Inspector (URcap software for 2D vision sensor)



- 2-Finger Soft Gripper
- 4-Finger Soft Gripper



- Cobot Welding Tool



- Palletizing Kit
- Machine-Tending Kits
- Robot Cell Integration Kit
- Cobot Palletizer
- Machine Builder Design Software
- Machine Logic Urcap (providing plug & play integration between robot arm and Vention components)
- 7th-Axis Range Extender
- Pedestal & Workstation Assemblies
- Smart Workstations



- CNC Mill Application Kit
- CNC Automation Tools
- Multigrip Grippers
- Robot2CNC Communication Kits





# Giving our Customers the Competitive Edge...Training

We offer a variety of training options to make your Industrial Robot experience a success!

## ONLINE TRAINING OPTIONS

### UNIVERSAL ROBOTS ACADEMY Authorized Training Partner

Learn all essential concepts, terminology and programming commands needed to operate a UR robot with a step-by-step simulation of setting up and programming a complete pick-and place application within the **Core Track**.

Build upon these skills learned with the **Pro Track**, as you learn more complex topics.

The **Application Track** teaches knowledge and skills specific to applications such as screwdriving, packaging and machine tending.

<https://academy.universal-robots.com/>



The **Basic Training** will get you started on your learning journey with 7 courses focused on the fundamental introduction to a mobile industrial robot including navigation, the interface, creating your first map and making your first mission.

Deepen your knowledge with more **Advanced** topics such as MiR Fleet and REST API within the next 7 courses.

And don't forget to check out the MiR **Webinar** library for a variety of technical support discussions such as Troubleshooting, Setting Up a Docking Station, and more.

<https://www.mobile-industrial-robots.com/en/insights/mir-academy/>

## IN CLASS, LOCAL CERTIFIED TRAINING

*We, as an authorized training partner of Universal Robots, strive to make our courses fit your needs, and give you all the right tools to succeed. With 3 certified Core trainers on-site, and the first Advanced certified trainer in the U.S., we are dedicated to your success.*

### CORE TRAINING

After the 2-day course, you will have hands-on experience with a UR robot. You will have programmed the robot several times to perform common tasks, including the operation of common peripherals (conveyors, sensors, grippers). You will be able to optimize a pick and place flow, perform palletization, understand safety concepts, and know the additional resources available to you. You will be ready to return to your own robot and create common application programs on your own.



### ADVANCED TRAINING

Upon completion you will fully understand and utilize all commands in the Universal Robots "User Interface". You will be able to better optimize your application and reduce the number of waypoints by utilizing variable waypoints and user defined features. The latter feature can assist you to align the movement of the robot to the installation or environment. Conveyor tracking and advanced force control will be explored. This course enables every developer to deploy applications that account for more environmental variables.

<https://academy.universal-robots.com/ralph-w-earl/our-trainings/>

# Warranty and Service Solutions

*We've got you covered*

## UNIVERSAL ROBOTS SERVICE360

Given the criticality of UR cobots to your production lines, we enable you to get out ahead and stay in the game. Service360 offers you options to proactively monitor, optimize and safeguard your robots performance.

### UR Service360 Standard

- 15 months coverage
- 4 business hours response times
- Case response by Universal Robots & Global UR Partner network
- 24/7 UR Customer Portal online case management system
- Warranty covered expenses

(Included with Robot Purchase)

### UR Service360 Basic

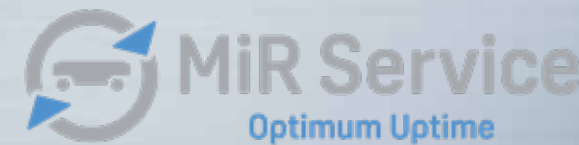
- 12 months coverage
- NEW! UR Remote Robot Check, 1 per contract year conducted by a UR Engineer
- Purchase anytime during warranty period to meet business and budgetary requirements

(Includes Standard Warranty Benefits)

### UR Service360 Advanced

- 12 months coverage
- UR Onsite Robot Check, 1 per contract year conducted by a UR Engineer in conjunction with a Distribution Partner's engineer
- 2-week robot loan per contract year

(Includes Standard Warranty Benefits + Service360 Basic Warranty Benefits)



**Reliability**

Even reliable products need maintenance. Our technical expertise, the high quality and standardized spare parts, ensure seamless maintenance. You also have easy access to the latest software updates and new features to Keep your MiR robots up to date.

**Availability**

We are here, when you need us. With MiR Service you get the possibility of 24/7 service and availability around the clock.

**Responsiveness**

Our standardized, digital setup combined with our close-by partner setup ensure that you get fast response, keeping your downtimes to a minimum.

**Flexibility**

No businesses are alike. Therefore, we offer you a flexible service set-up that can be customized with different service elements according to your needs. Our flexible set-up is made for rapid and reactive problem solving as well as fast access to repairs if faults occur.

**Expertise**

The highly skilled and experienced MiR Technical Support team is ready to help you improve your logistics workflows. We are ready to share our expertise and you get free access to MiR Academy, our extensive online training tool.

Optimize uptime and increase productivity of your logistics operations with MiR Service's preventive and reactive services that you can customize for your specific set-up.

Future-proof logistics solutions must fit seamlessly into your operational processes, integrate into your automation systems, be scalable, and adapt flexibly to new workflows and environments. And production delays or downtime due to AMR maintenance or repair is not an option. With MiR Service we ensure that you are prepared for the unexpected with a service concept based on reliability, availability, responsiveness, flexibility, and expertise.



## We Empower our Customers.

- 3 Application Engineers, highly experienced in Universal Robots, MiR and their supporting partners, allow us the ability to provide a complete automation solution for your application – includes on-site assistance with set-up and programming
- 3 UR-certified Core trainers
- First UR-certified Advanced trainer in the U.S.
- Dedicated UR training facility in Syracuse, NY
- We've got you covered with Warranty and Service Solutions
- UR and MiR Integrator Options available
- Financing and lease options available with the purchase of a robot
- On-site demonstration of all UR e-series robots, MiR250, ActiNav Machine Loading Solution, Flexibowl parts feeder and sorting system – a range of end-effector options from Robotiq, New Scale Robotics, OnRobot, Bimba and more
- On-site demonstration of all UR e-Series robots, MiR250, ActiNav Machine Loading Solution, Flexibowl parts feeder and sorting system, and the Robotiq Palletizing Solution, along with a range of end-effector options from Robotiq, New Scale Robotics, OnRobot, Bimba and more

## ARE YOU READY TO AUTOMATE?

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