

## Q-Span™ Workstation Kit

Application Kit for UR3e cobots from Universal Robots

Automate digital caliper measurements, data logging and part handling

**Improve precision, yield and quality** in small-part measurement

**Increase production capacity** faster than headcount

**Boost employee engagement** and job satisfaction - while reducing risk of repetitive stress injuries

**Install quickly** with minimal changes to existing facilities and process flow

**Fast part changeover** for agile automation

**ROI in less than 10 months**



## DIY QC automation with rapid return on investment

The Q-Span™ Workstation Kit for UR3e collaborative robots is a flexible, do-it-yourself (DIY) automation solution for QC measurement tasks. It delivers fast return on investment in high-mix, small-batch manufacturing.

Pick, measure, sort and place with **one** easy-to-use system

Automatically **pick** small parts, use the robotic caliper to **measure** multiple features on each, and decide where to **place** the parts based on any measured dimension (for example pass, fail, or sort into bins by ranges).

You can also **record** all measured data to your PC for statistical analysis.

With a Q-Span Workstation Kit, your QC team can improve small-part measurement consistency and repeatability. They can eliminate data entry errors and spend time on higher-value tasks.

Complete measurement automation system

A Q-Span Workstation Kit includes three gripper/caliper tools, an example part, trays and fixtures, the NSR Devices URCaps software, and robot programs that demonstrate **pick-measure-record-and-place** for the example part. Use this application kit, along with your UR3e robot, as a starting point for automating measurement of your own specific parts.



# What's in a Q-Span™ Workstation Kit?

- 1 Three NSR-PG gripper/calipers and one NSR-MTM Multi-Tool Mount
- 2 Example part accessory set
  - a) Standard metrology fingertips set
  - b) Example part(s)
  - c) Trays for the example parts: parts-in, parts-passed, parts-rejected
  - d) Measurement fixture for example part
  - e) Zero-reference fixtures including gauge block (NIST traceable artifact)
- 3 Mobile workstation table
- 4 NSR Devices URCap Application: Create programs to grasp, move and measure parts. Programs for the example parts are included, and serve as a model for you to easily build your own programs.
- 5 Q-Span Data Server PC Application: Automatically log all measured data to your PC and export for SPC. Data cable is included.
- 6 Documentation and videos for installation and operation

The Q-Span Workstation Kit is ready for user installation with a six-axis UR3e e-Series collaborative robot from Universal Robots (*purchased separately*).

**Example robot programs demonstrate how to move and measure the example parts in the kit. Use them as starting point for your own programs and parts.**



## Specifications

Measurement Capabilities		
Resolution	2.5 µm	0.0001 inch
Repeatability	5 µm	0.0002 inch
Accuracy	20 µm	0.0008 inch
Part Characteristics		
Max recommended mass (weight)	100 grams	3.5 ounces
Max dimension to pick/measure	100 mm	3.94 inches
UR Robot Compatibility		e-Series UR3e
Agency Approvals		CE

## Fast setup, fast change-over

Once you have configured a Q-Span Workstation Kit for your first part, you can easily expand its use to additional parts.

Each part may require part-specific fingertips, trays, fixtures and robot programs. The NSR Devices URCaps software and UR teach pendant make it simple for you to build pick-measure-record-and-place processes for each new part.

After you have developed a process for each part, change over between different parts takes only a few minutes.

**Contact us today for a free assessment of your first part.**

