

FARO® Robo-Imager Mobile

Automated Inspection Station for the Shop Floor

Robot-Mounted 3D Imager on Mobile Station

The FARO® Robo-Imager Mobile combines the latest advancements in optical 3D measurement and robot technology. The solution pairs a metrology-grade 3D Imager with a human-collaborative robot – integrated on a mobile station that can go wherever measurement tasks are required. The Robo-Imager Mobile provides a turnkey solution to automate the digitization, inspection and verification of parts at any point of production.

The system uses the FARO Cobalt Array Imager, a 3D imager capable of capturing millions of high-resolution 3D coordinate measurements in seconds. The Cobalt Array Imager captures accurate, repeatable and highly-detailed measurement data for dimensional inspection and reverse engineering applications on parts, assemblies and tools.

Specifically designed to maximize productivity and simplify workflows, the Robo-Imager Mobile reduces cycle times for inspection and eliminates scrap and costly rework. The system's unmatched mobility enables the inspection processes to be moved out of the quality lab and onto the shop floor, so parts can be checked without delay.



Integrated System Benefits

- Turnkey solution provides non-contact measurement wherever it is needed
- Ability to capture accurate, repeatable, and highly detailed 3D measurement data
- Flexible inspection system that can function as fast go/no-go sensor or complete non-contact CMM with color-coded measurement reports
- Quick to set up and simple to use
- Safe design eliminates the need for any physical barriers

Return on Investment

- Maximize productivity by reducing inspection cycle times
- Recognize part deviation/errors early in the production process
- Eliminate the need for large, fixed, and costly inspection cells
- Lean solution provides mobility and eliminates transit to and from the quality lab
- Avoid costly integration time and effort with quick set-up
- Independently use 3D Imager for other deployment configurations

Component Features

Mobile Inspection Station

Mobility and Flexibility - The mobile station can be easily wheeled to any location. Once in position, the station wheels are retracted to provide a stable platform

Integrated Rotary Table - The built-in rotary table allows parts to be rotated for complete data capture

Human-Collaborative Robot Eliminates Fencing - To ensure safety, built in area scanners protect personnel from injury while 360° LED lights indicate the measurement process status

FARO Cobalt Array Imager

On-Board Processing - Point cloud processing occurs within the Cobalt Array Imager unit itself, allowing the computer to be available for other tasks

High Resolution Data - Provides high precision scan data – critical for capturing fine details, features and edges

High Dynamic Range - Handles complex parts with both dark and light surfaces, different colors, textures, and reflectivity

Stereo Cameras - Enable high accuracy, stability and self-monitoring

Interchangeable Lenses - Provide flexibility for multiple fields of view

Enhanced Stereo Mode - Maximizes coverage area in each scan and shortens inspection time

Blue Light Technology - Enhances the ability to measure dark and reflective surfaces in variable lighting conditions

Tested to Industry Standard - Calibration per VDI/VDE 2634 part 2

Technical Specifications

FARO Cobalt Array Imager: Metrology-Grade 3D Measurement System

Field of View	Measurement Volume mm (inch)			Standoff Distance mm (inch)	Point Spacing mm (inch)	Points
	Width	Height	Depth			
250	260 (10.2)	200 (7.9)	90 (3.5)	505 (19.9)	0.155 (0.006)	5MP
500	500 (19.7)	350 (13.8)	300 (11.8)	320 (12.6)	0.255 (0.010)	5MP
250	260 (10.2)	200 (7.9)	90 (3.5)	505 (19.9)	0.082 (0.003)	9MP
500	500 (19.7)	350 (13.8)	300 (11.8)	320 (12.6)	0.175 (0.007)	9MP

Data Handling and Control

- Output: ASCII
- Connectivity: Ethernet - PC or Network
- External USB Port

Projector

- Technology: Digital Projection
- Light source: Blue Light

Cameras

- Resolution: 5MP & 9MP

Mobile Inspection Station: Robot-Mounted 3D Imager on Mobile Cart

Power Supply Voltage Europe VAC/Hz (US VAC/Hz)	Max Current Europe A (US A)	Size mm (inch)	Mass kg (lb)	Total Payload kg (lb)	Max. Workpiece Dimension mm (inch)
230/50 (110 / 60)	10.6 (21.2)	860 x 1320 x 1750 (34 x 52 x 69)	450 (980)	100 (220)	Ø 600 x 500 (Ø 23 x 19)



TÜV SÜD certified

TÜV SÜD Testing Standards/Norms

European (Germany, France, Spain, Austria, Italy, UK, Poland, Netherlands, Belgium, Switzerland, Sweden, Norway, Denmark):

EN/ISO 12100, ISO 10218-2, EN/IEC 60204-1, EN ISO 13849-1, CE compliant

US:

UL 1740, NFPA 79, UL 1998, ANSI/RIA R15.0G



Electrical Standards

The FARO Robo-Imager Mobile was tested according to IEC 61326-1 (Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements) which includes among other standards FCC Part 15 Subpart B” Class A.



Designed by FARO, refined by our customers!

The FARO Robo-Imager Mobile is part of our Early Adopter Program.

Get early access to new innovative products and influence the next generation of 3D measurement. Apply now to the FARO Early Adopter Program:

www.faro.com/early_adopter

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