LEAbot

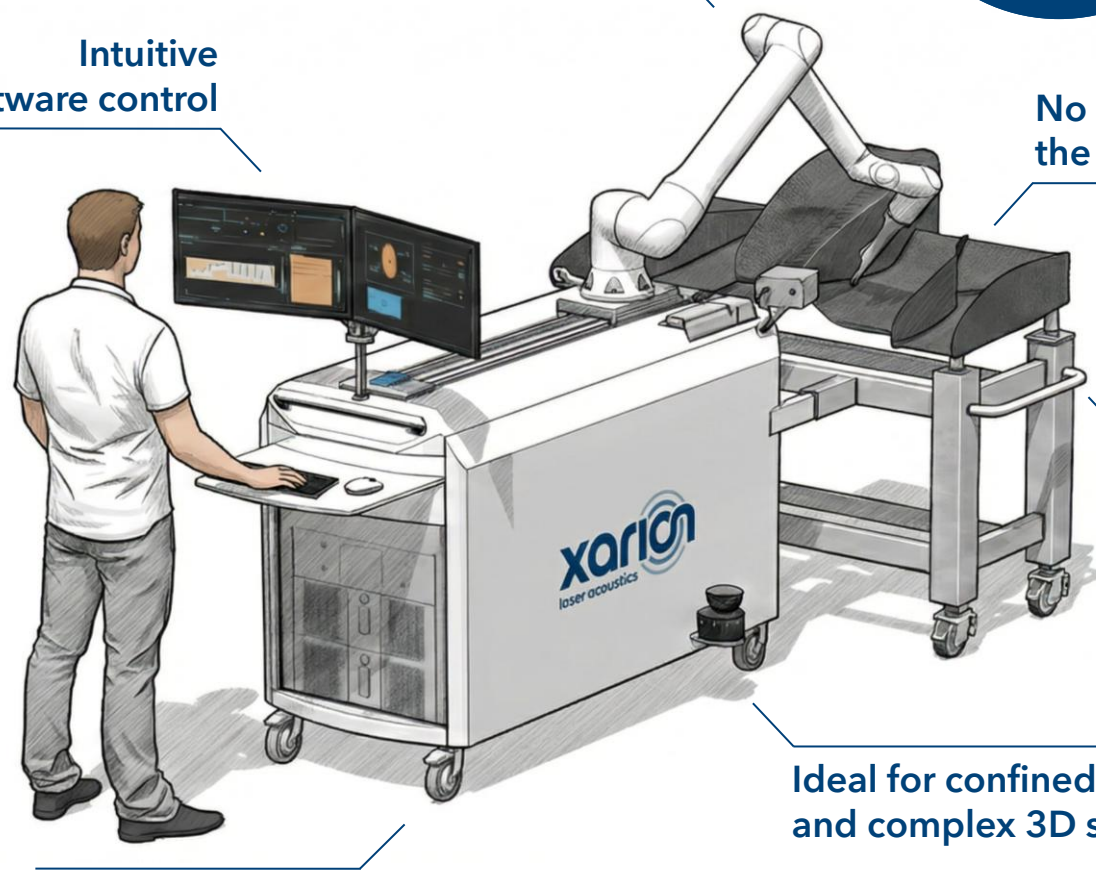
for Robot-automated Ultrasound Inspection

Contact-free ultrasonic testing for production & MRO!

Adaptable to various robot platforms

Intuitive software control

No contact with the component



Mobile and flexible in deployment

Ideal for confined spaces and complex 3D structures

Applications:
Aerospace · Automotive ·
Composites · Adhesive Joints · Welds · Batteries

hear with light – see with sound

xarion
laser acoustics

LEAbot

XARION's LEA technology (Laser-Excited Acoustics) combines laser-based ultrasound excitation with a proprietary ultrasound sensor, enabling high-resolution, fully contact-free internal defect inspection without water or gel.

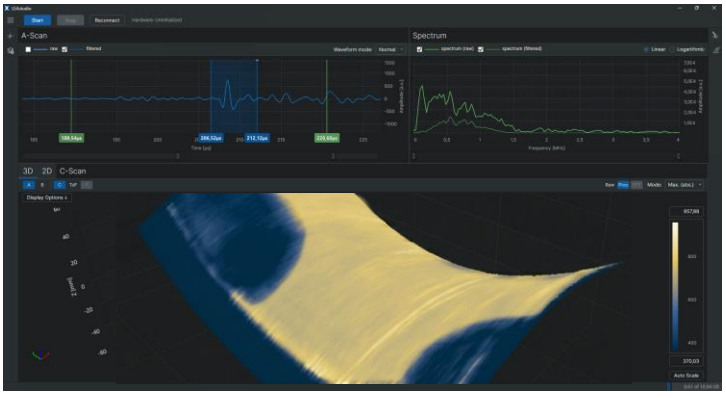
LEAbot integrates LEA with **robotic motion control**, allowing the inspection of complex 3D components along free-form trajectories. The robot-guided LEA approach ensures high accessibility, flexible orientation, and consistent measurement conditions on curved, contoured, and hard-to-reach surfaces.

LEAbot is designed for non-destructive testing (NDT) of **real-world industrial parts** in production environments, supporting automated, scalable inspection of composites, metals, and multi-material assemblies.

It can be used directly in **production**, but is also ideally suited for **MRO (Maintenance, Repair, and Overhaul)** applications, as its mobility, flexible setup, and robot-guided inspection capability allow it to assess components in situ.

Reach	up to 2 m radius, extensions via linear 7th axis
Scan resolution	down to 100 µm
Scan speed	up to 1 m/s
Defect types	delaminations, disbonds, cracks, porosity, and internal voids
Defect depth detection	up to 20 mm

LEAstudio – Ultrasound NDT Software by XARION



Smart. Fast. Intuitive.

LEAstudio is the fastest way to **screen and analyze ultrasonic NDT data**

In-house software for automated defect detection

Intuitive interface for easy operation

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