



PRESS RELEASE

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Desoutter Introduces 3D Vision System for Assembly Robot Guidance: Automated Robot Guidance

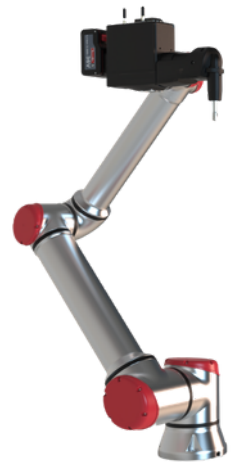
Desoutter is proud to announce the launch of its latest innovation, the Automated Robot Guidance (ARG) system. Developed from extensive observations on production lines, ARG addresses the common issue of non-repeatable positioning of parts to be assembled, where deviations of several centimetres can occur. To enhance automation and precision, Desoutter has integrated this precise 3D vision system into its light automation range, specifically designed for tightening and drilling applications.

Addressing Industry Challenges

Desoutter's 3D vision system tackles a wide array of challenges faced by many industry players, particularly in Stop & Go applications. These challenges include:

- Integration with existing systems
- Variability in lighting and environment
- Complexity of image processing
- Data overload
- Accuracy and reliability
- Scalability and flexibility
- Maintenance and required expertise
- High initial investment

In scenarios where the positions of tightening points are not repeatable, the use of Automated Robot Guidance becomes essential. This innovation marks a significant step forward in optimising tightening and drilling operations.



All-in-One Kit for Performance

The ARG kit includes:

- Camera/light module
- Processor module
- Programming and processing software/HMI

Integration of the standard kit with a Desoutter tool is straightforward, requiring minimal adaptation parts such as interfaces, cables, and casings. This provides a new, enhanced experience for operators on automated stations.

Key Benefits

Extra-compact and light camera directly installed on the tool

- Performance ensured thanks to the GPU and the AI-based analysis software.
- Ability to detect various features such as holes or pre-mounted screws
- Utilisation of VCSEL technology for high-precision depth detection
- Batch detection: a single picture acquisition to detect a mix of holes and bolt heads in a region of interest
- Razor-sharp precision with 100% detection within positioning tolerances
- AI models provide highly accurate analysis of pictures adapted to all types of use cases
- A scalable tool that operators can configure on any Stop & Go production lines
- Easy to install, configure, and maintain, ensuring total customer ownership

// ARG revolutionises automated stations by addressing the critical issue of repeatability and positioning of parts on production lines. It enhances productivity by using 3D vision to determine the spatial coordinates of tightening/drilling points and automatically realigns with the axis of holes or pre-inserted bolts in record time. This system reduces costs by eliminating the need for expensive, complex mechanisms that are difficult to maintain and lack flexibility. Additionally, it ensures high adoption rates thanks to its ease of setup, use, and maintenance.”

David Ferrer - Project Marketing Manager at Desoutter

Watch the ARG Video and images:

Explore the capabilities and modularity of ARG in our video.

[ARG -Automated Robot Guidance - 3D Vision System for Assembly Robot Guidance](#)

[Desoutter photo gallery](#)

About us

Founded in 1914 and headquartered in France, Desoutter Industrial Tools is a global leader in Advanced Assembly & Advanced Drilling solutions serving a wide range of assembly & drilling manufacturing operations, including Aerospace, Automotive, Light and Heavy Vehicles, Off-Road, General Industry. Desoutter offers a comprehensive range of Solutions (tools, data analytics, process control, service and customized solutions) to meet the specific demands of local and global customers in over 170 countries. The company designs, develops and delivers innovative quality industrial tool solutions, including air and electric Screwdrivers, Advanced Assembly Tools, Advanced Drilling Units and Torque Measurement Systems.

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