

Automated Optical Inspection with AI

AI-driven quality control for soldering and dispensing

Achieving consistent, high-quality results in automated soldering and high-precision dispensing processes requires more than traditional AOI. Rule-based algorithms and simple patterns or color recognition often reach their limits when faced with process variations, complex geometries or challenging materials.

Our AI-powered AOI solution goes beyond conventional inspection. Developed for use in selective soldering and volumetric dispensing processes, it combines industrial vision, artificial intelligence, and our proven mta platforms with Motion Editor software into a single, high-performance system for quality control.

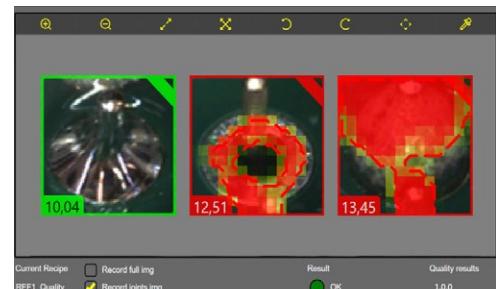
Key features

- AI training and test datasets built from real good and defective parts
- Dedicated HMI for intuitive setup, operation and monitoring
- Vision recipes for repeatable and scalable inspections
- Optional traceability of inspection data and quality results



AI advantages over rule-based AOI

- Reliable inspection of complex geometries and variable processes
- Robust performance despite lighting, material and process variations
- Smarter setup without complex rule definition
- Superior defect detection accuracy
- Faster setup with greater inspection consistency



Areas of application

We provide turnkey systems for soldering and dispensing operations with integrated AOI and AI-based process quality control, particularly suited for complex solder joints and demanding dispensing applications.

Our standard platform solutions are available as :

- MRC500 robotic cell
- TR300 table-top robot
- OEM for integrators
- Station for integrators

