



ARTIFICIAL VISION

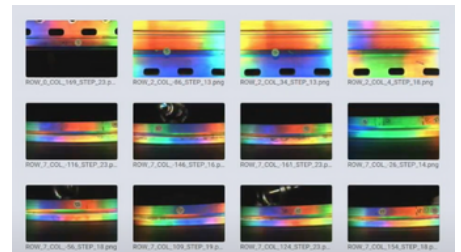
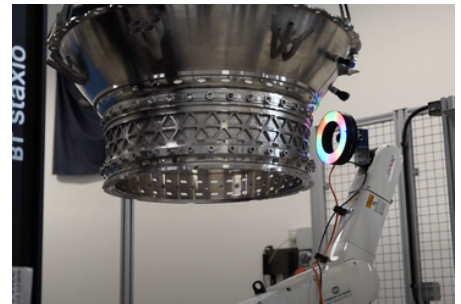
Reducing costs, standardising defect detection and maintaining between 90-99% of human capacity, but guaranteeing inspection stability over time

SOLUTION DESCRIPTION

The Edge AI machine vision inspection device is an advanced system **designed for rapid identification of visual defects in manufacturing processes**. It ensures correct assembly and **mitigates the inclusion of faulty components in the final product**.

Tailored for industries such as **aerospace mechanical components, high-precision manufacturing, steelmaking plants, injection plastic parts, and hollow glass manufacturing**, this cutting-edge technology guarantees stringent quality checks for product surfaces.

It integrates a robust image analysis platform with AI techniques into a GPU-based edge device. Suited for manufacturers seeking **comprehensive quality assurance** throughout their production lines, it incorporates image acquisition and analysis devices at the edge, coupled with cloud services for image classification, annotation, and AI model training.



MAIN BENEFITS

- ▶ Efficient waste reduction, minimizing scrap, and optimizing energy consumption
- ▶ 100% automatic inspection for inline identification of defects in production, allowing rejection or repairment
- ▶ Easy integration in plant automation and management systems
- ▶ Flexibility and accuracy of AI technology



The ZDZW project has received funding from the European Union's Horizon Europe programme under grant agreement No 101057404.

METRICS SAMPLES

Hollow glass producers:

- Up to 180 containers/minute
- Defects and anomaly identification on glass surfaces

Aerospace mechanical parts of large surfaces:

- Up to 70x70 mm surface area per second
- Defects and anomaly identification on mechanical components

Identification of cracks on **concrete in building operations**:

- Classification without the need of labeled data
- Automatic segmentation of concrete defects

PRODUCT OWNER:



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