

# ARTIFICIAL INTELLIGENCE – BASED INDUSTRIAL EDGE VISION SYSTEM

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## MSX-AI-5000

Non-intrusive quality control

AI-based vision software

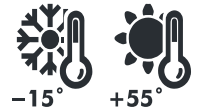
Customizable skills

Deep learning and vision processing embedded

Up to 6 cameras

Android App & web interface

MQTT & OPC UA interfaces



The MSX-AI-5000 is an artificial intelligence-based industrial edge vision system. Through this product, we offer a solution for industrial productivity buyers or quality control and maintenance engineers seeking to automate quality control tasks for manufactured parts, by providing them with our user-friendly complete machine vision system: hardware module, industrial cameras, and AI-assisted embedded processing.

Unlike complex and too specific competing solutions, the MSX-AI-5000 by ADDI-DATA is a versatile product that allows to increase speed and accuracy of error-prone tasks such as visual inspection, thus preventing non-detection of defects while ensuring process transparency. This system allows to perform different applications on the same hardware base by installing various skills (see catalog). These skills are developed to best fit specific

use cases constraints, and are easily reconfigurable if further requirements arise. The user-friendly interface (Android app & web browser) enables an uncomplex administration and setting of the system, thus ensuring maximum efficiency and minimum efforts.

**Feel free to reach us!**

## FEATURES

- MSX-AIRIS on the edge
- Multi-camera
- Customizable skills
- Non-intrusive process
- User-oriented interfaces
- Optional SDK available

### Cameras

- Up to 6 cameras
- Suitable for 2D and 3D camera
- 4x UVC cameras
- 2x GigE cameras

- RTSP and IP cameras
- Others camera interfaces on request

### Interfaces

- 1x Gb Ethernet for LAN connectivity
- 4x USB 3.2 ports for UVC cameras
- 2x PoE ports for GigE cameras
- Wi-Fi connectivity
- Cascade mounting with ADDI-DATA products to build an ecosystem
- Other interfaces on request\*: 4G, Ethercat...

## APPLICATIONS

### Fields

- Quality control
- Predictive and corrective maintenance
- Smart city and many others...

### Use cases

- Manufactured parts visual inspection
- Assembly check
- Leather/fabric surface inspection
- 3D volumetric measurement and many others...

## SOFTWARE

### MSX-AI-5000

- Artificial intelligence-based edge processing
- Deep learning vision processing: segmentation, classification, object detection
- Classic computing vision processing: OCR, tracking, object recognition, color filtering, thresholding ...
- Autonomous system with a dynamic behavior: multi-skill (multiple skills on the same camera) & multi-camera (multiples cameras for one skill)
- Security through an administrator rights system

### SDK on request

- Visual Studio plugin
- Vision processing library

### Cyber-secure communication

- Encrypted MQTT & OPC UA interfaces with TLS protocol
- Authenticated and encrypted data communication: AES encryption, RSA cryptosystem

### Operator-friendly user interface

- No coding skill management and system administration
- Easy-to-use camera setup interface

### Service on request

Deep learning-embedded neural network training and dataset creation for customer-specific industrial needs. Contact us to request an offer!

## CUBIC 3D MEASUREMENT



### SKILLS

No calibration

Millimetric precision

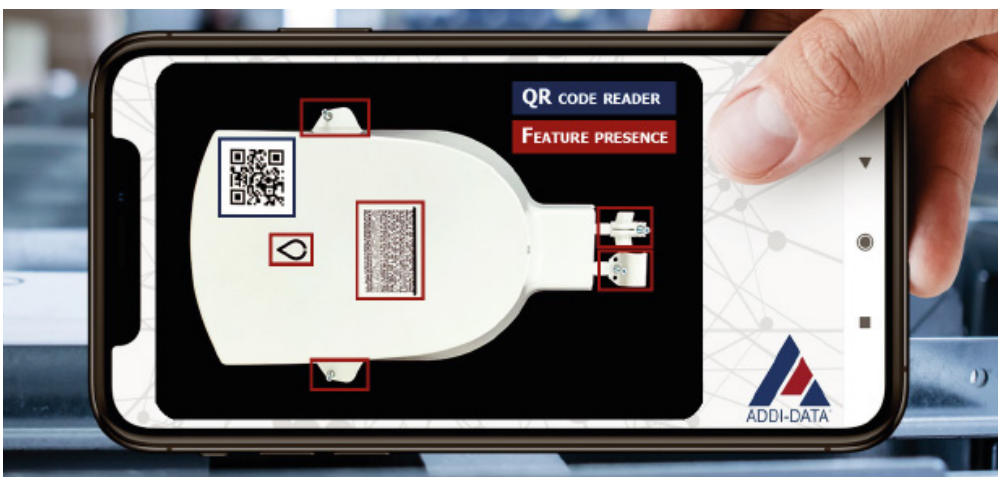
Multi-object

Low light compatible

Non intrusive measurement

High rate measurement

## MEASUREMENT QUALITY CONTROL



### SKILLS

Feature detection

Feature classification

QR code & barcode reading

Label placement check

Real-time edge computing

Multi-object

Multi-camera

High rate quality control