Automatic Visual Quality Inspection

Customize your own AI-based solution to perform quality inspection on different products or assets

Visual quality inspection is essential for asset monitoring and industries with production lines. It is a crucial part of quality management and helps to ensure that products meet high standards. By identifying and addressing defects, visual inspection saves time, money, and reputation.

The Offer Package

Business Value

- **Improved quality**: Automated inspection reduces defects and improves customer satisfaction.
- **Increased efficiency**: Faster with reduced labor costs.
- **Cost savings**: Automation reduces manual inspection
- **Scalability**: Cloud-based solutions enable easy scaling.
- **Flexibility**: Tailored solutions provide flexibility to customize inspection processes.

Deliverables

- ✓ Data acquisition system evaluation and consultancy
- ✓ Tailoring an AI solution for visual quality inspection
- ✓ Deployment of the AI solution into production environment
- ✓ Continuous evaluation and model management for long-term performance.

Crayon

Specifications

AI Model Input

Data Source	Image / Video / Point Cloud
Dimension (depends on sensor type)	2D / 2.5D / 3D

AI Model Output Options

Classification (defect / no defect)	✓
Object detection (approximate location)	✓
Semantic segmentation (exact areas - combined)	✓
Instance segmentation (exact areas - separated)	✓
Anomaly detection	✓

Software Implementation Options

Deployment on Cloud	✓
Deployment on Premises /Edge	✓
Hybrid Deployment Cloud / On Premises	✓
Solution Validation (Prototype)	✓
Solution in Production	✓
Business Intelligence Tools	Dashboards / Visualizations

Data Acquisition System (Optional)

Advisory service for hardware	✓
Hardware setup	✓

Human in the Loop (Optional)

Supervised Active Learning	✓
Semi-Supervised Active Learning	✓
Random Active Learning	✓

Maintenance & Support (Optional)

Model management	✓
Bug fixing	✓
Feature adding	✓