



# AI & ML Based Inspection Solutions for Manufacturing Sector

## Introduction

Printjet Solutions has evolved into a comprehensive solution provider, delivering turnkey automation services for inspection processes across the manufacturing sector. We specialize in deploying state-of-the-art machine vision solutions powered by AI and ML, complemented by bespoke electro-mechanical systems, to ensure precise and error-free inspection. Our expertise extends to seamless integration with various measurement technologies, including laser-based sensors, 3D vision systems, eddy current systems, and high-voltage testing equipment.

*We specialize in delivering cutting-edge vision inspection systems and end-of-line automation solutions tailored for modern manufacturing environments. With a focus on quality, precision, and efficiency, our systems empower industries to enhance productivity, ensure product integrity, and reduce human error.*

## Vision System

Our AI & ML based machine vision solutions use advanced cameras, lighting, and AI-based algorithms to detect defects, verify labels, code reading, check alignment, and ensure dimensional accuracy—providing real-time, reliable quality control at every stage.

- ◆ Code Reading Solutions to decode Barcode, 2D Matrix Codes, Pharma codes, OCR/OCV.
- ◆ Cosmetic Inspection to detect and isolate products with Scratches, Dents, black spots on product surfaces.
- ◆ Dimension Inspection Systems for Accurate controls of dimensions on products.
- ◆ Software Development of AI and ML based Machine Vision Algorithms to perform In-Process or Off-line Inspection of components / finished goods.

## Automation

From automated packing and labelling to palletizing and conveyor integration, our end-of-line solutions streamline your production, reduce labour dependency, and minimize downtime.

- ◆ Counting Solutions to perform accurate product counts in a packaging.
- ◆ Equipment for Track and Trace Solutions. Serialization and code printing solutions, Shipping label printers, Bulk 2D Scanners, Parent - Child Aggregators.
- ◆ Experts in integrating robots for performing pick and place automation.
- ◆ Integrating different control elements such as PLC, VFD, Servo Motors and Drives, Smart sensors, and Pneumatic controls.

### **Solutions**

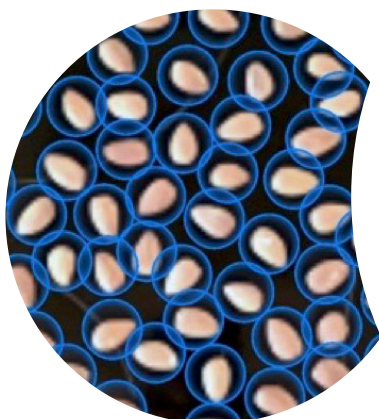
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### **Applications**

- ◆ Vials and Ampoules
- ◆ Fasteners - Nuts, Bolts, Washers
- ◆ Auto Components - Individual components to product assemblies.
- ◆ Plastics - Containers, Caps, Closures,
- ◆ Packaging - Bottles, Trays, Containers
- ◆ End of Line Packaging - Product Labels, Cartons, Shippers, Pallet

### **Benefits**

- ◆ 100% inspection of components and products leading to reduction in customer complaints.
- ◆ Achieve reliability and predictability in production performance leading to increase in customer confidence.
- ◆ Accurate Data Capturing and analysis helps in identifying process improvement potentials and monitoring them.
- ◆ Increase profitability by many scores.



**PRINT JET®**

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