

Agenda

- About Cognex
 - Company Overview
 - What is machine Vision?
- Code reading/ verification
 - DM290
 - DM475V
- Customer Success Story

COGNEX

45 years of industry leadership

\$994M revenue 2025

500+ global customer support resources

1,350+ technology patents issued & pending

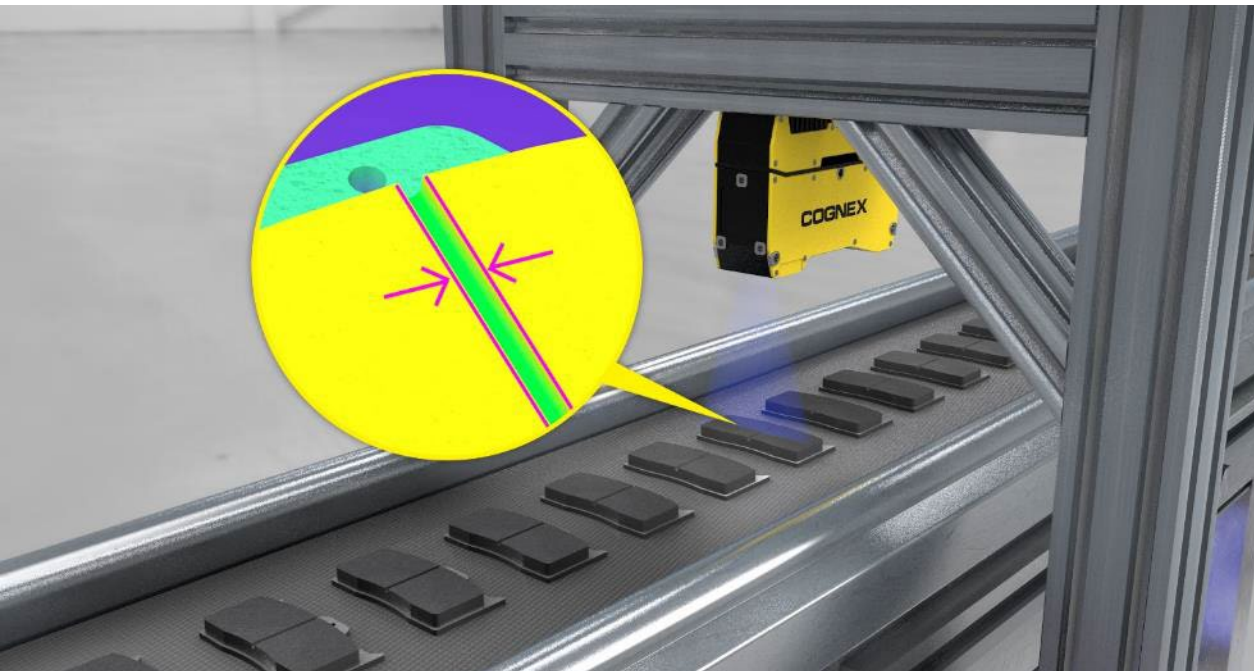
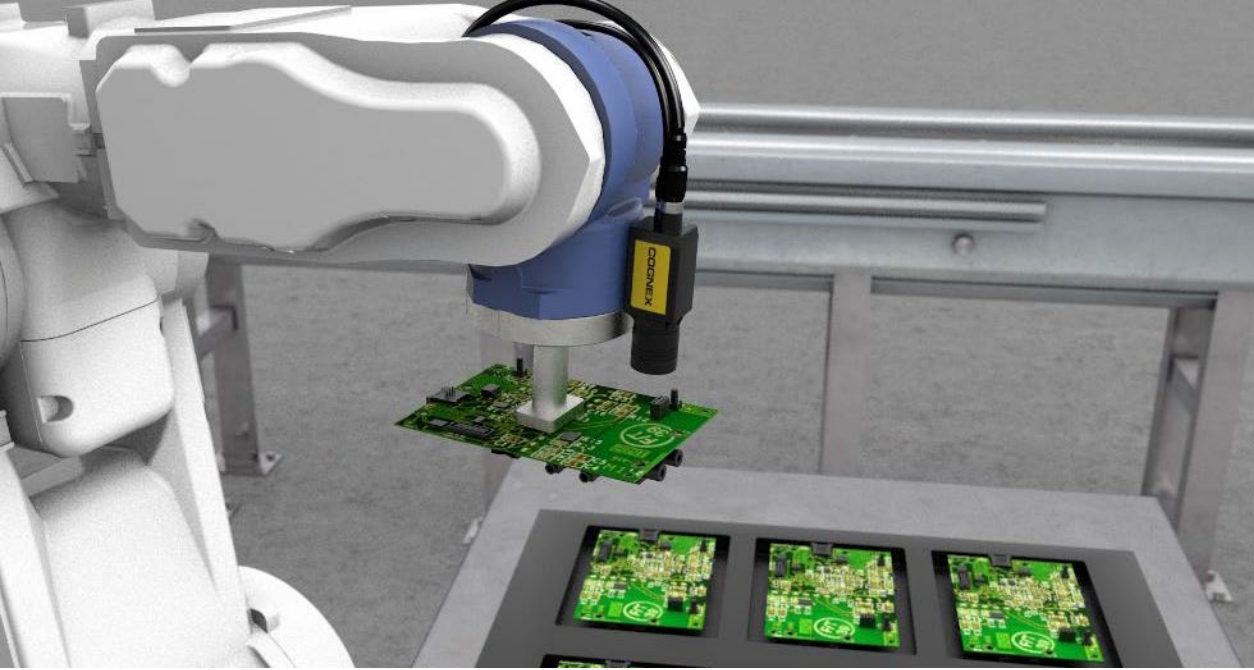
9+ years developing AI for industrial machine vision

14% of annual revenue invested into R&D



What is machine vision?





What does
machine vision do?

Guide
Identify
Gauge
Inspect

WHY COGNEX?

Advanced machine vision made easy

Leading technology

Unbeatable performance
today, and relentless
innovation for tomorrow



Customer experience

Intuitive setups, self-service
resources, and a global
network of experts



Creating value for our customers across industries and applications

AUTOMOTIVE
BorgWarner, South Korea

Redeployed up to **5 employees per process** by automating quality inspections

CONSUMER GOODS
Federal Package, USA

Detected defects with **>99% accuracy** and shortened changeover times to **5-10 minutes**

ELECTRONICS
Schneider Electric, France

Create and deploy simple, production-ready assembly verification applications in **<4 hours**

MEDICAL DEVICE
Pentagon Assembly, India

Replaced **4 sensors** with a single Cognex sensor for cost-effective needle assembly verification

LOGISTICS
OSARO + Zenni Optical, USA

Robotics and barcode reading increased throughput by **80%** with a read rate of over **99.5%**

SEMICONDUCTOR
Heidelberg Instruments, Germany

Powerful alignment tools increased wafer yield rates from **66% to 95%**

Worldwide reach and support



Cognex portfolio

Barcode readers and verifiers

Industry-leading 1D and 2D code reading performance



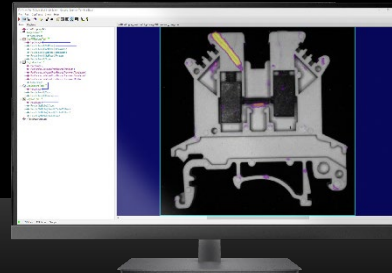
Vision sensors and systems

2D and 3D machine vision for optimized inspections



Vision software

Power and flexibility to solve the most challenging applications



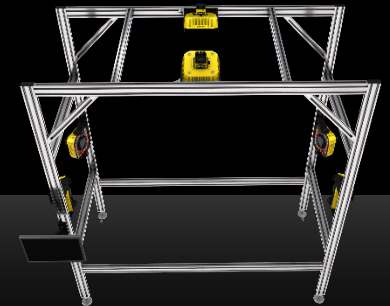
Lenses and lights

High-performance lenses, lighting, and accessories



Industry solutions

Products and services that solve high-value industry applications



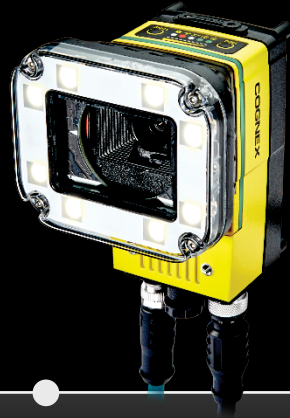
The evolution of AI vision



Late 2010s

PC-Based AI

Up to 99.9% accuracy, but required thousands of training images, heavy PC-based compute, and expert users



2020

Embedded AI

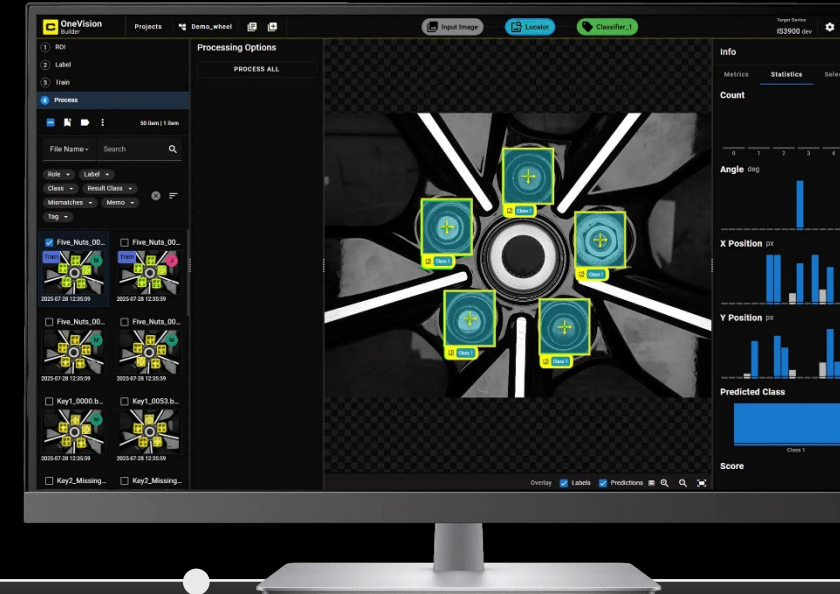
Deep learning on-device, reduced training requirements to hundreds of images



2022

Edge AI

Only tens of training images, running fully on-device with minimal user involvement



2025

Cloud-to-Edge AI

Enabled collaborative labeling, training, and management of models, with deployment at the edge

AI-powered barcode readers

- Patented AI-powered decoding algorithms and image optimization to ensure reliably high read rates, even for the most difficult codes
- Reliable, resilient products made to stay running consistently, tolerate harsh environments, and be easy to adjust if needed
- Broad portfolio with common tools and software, plus easy upgrade paths

AI-POWERED READERS

All-purpose reader

DataMan 290



High-resolution reader

DataMan 390 Series



Robust handheld reader

DataMan 8700 Series



Flexible reader

DataMan 280 Series



High-speed reader

DataMan 380

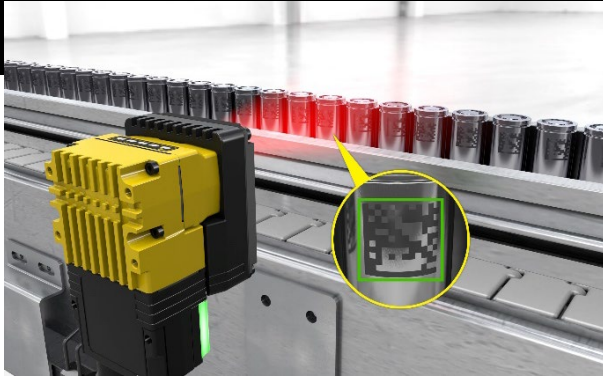


Ultra-compact reader

DataMan 80 Series

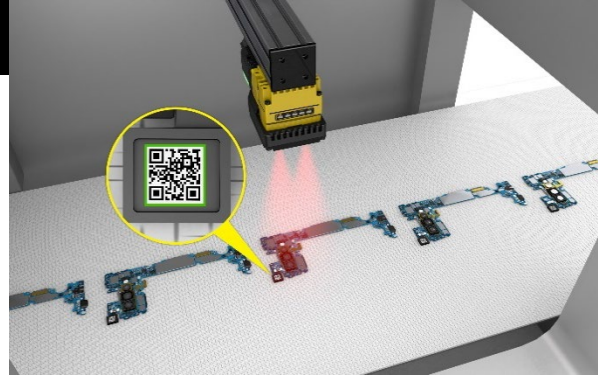


DataMan 290 applications



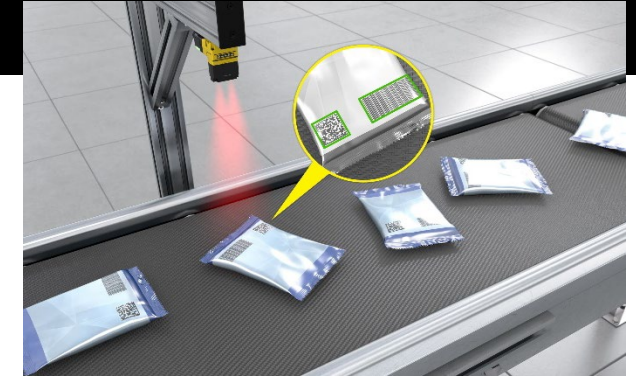
Electric vehicle

DPM reading



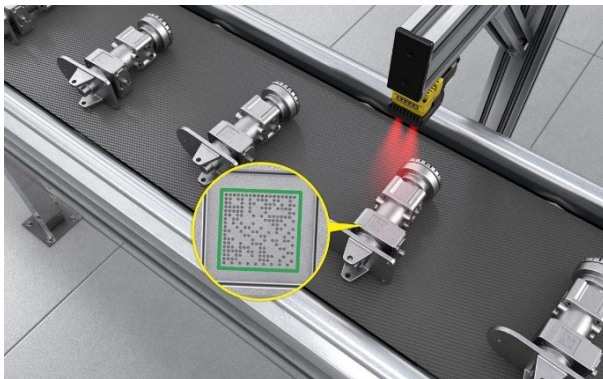
Electronics

High-precision code reading



Consumer goods

Multi-code reading



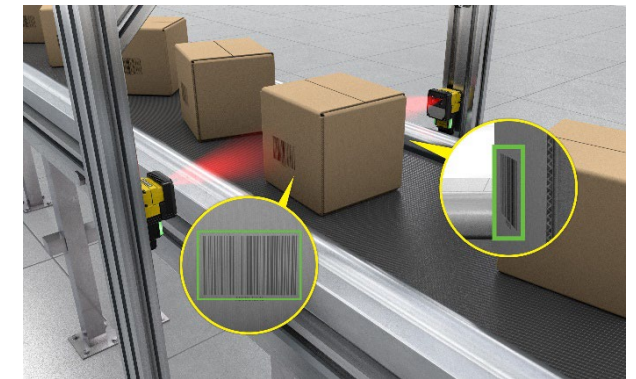
Automotive

Reading dot peen markings



Food and beverage

High-speed code reading



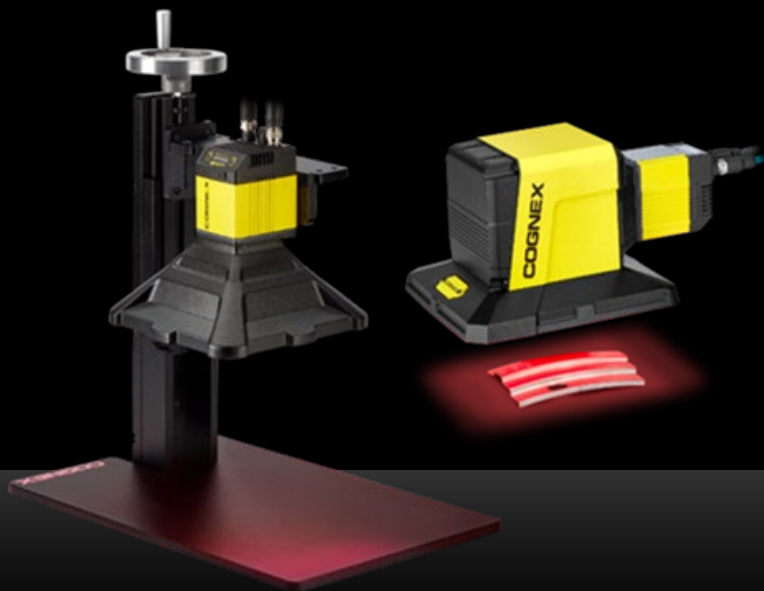
Logistics and warehouse operations

Reading codes in variable locations

Barcode verifiers

**All-purpose inline
or offline verifier**

DataMan 475V Series



**Offline DPM
verifier**

DataMan 8072V



2D

Label

DPM (direct
part mark)

ISO 15415

ISO 29158 / AIM-DPM

45°
4 quadrants

30°, 45°, 90°
or Dome

Verification Report

97	85	93	85	95	83	95	83	93	87	91	87	95	81	91	87	95	100
97	95	93	89	97	93	100	97	93	87	91	89	93	93	91	95	87	97
97	93	91	93	95	83	97	95	81	95	89	95	91	87	93	93	95	100
97	87	91	91	87	93	95	87	93	97	91	93	87	93	93	95	81	97
97	89	93	87	89	89	89	97	91	93	93	95	93	93	85	93	95	97
97	87	93	81	93	89	91	89	95	93	97	91	93	91	93	91	83	97
97	87	91	95	95	87	95	91	85	89	91	89	89	93	93	91	93	97
97	91	89	85	93	83	93	83	93	93	91	91	91	89	93	89	81	97
97	87	93	89	89	91	93	85	93	95	89	91	91	89	91	93	93	97
97	87	93	91	87	91	91	93	81	91	93	91	89	93	89	89	83	97
95	91	87	93	93	93	87	93	91	91	95	89	89	93	89	91	93	97
95	89	87	95	95	83	91	85	89	95	93	89	93	89	91	93	77	97
95	83	93	95	95	93	83	91	91	85	91	91	85	93	81	95	95	97
95	83	91	85	87	91	93	89	83	91	89	89	93	95	83	93	77	97
93	89	91	91	87	93	93	89	89	89	100	95	91	93	91	85	93	95
93	87	93	93	89	93	93	89	89	93	95	95	89	89	89	93	85	95

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Verification Report

Unit Serial: 1A2134PP482270
Firmware Version: 6.1.16
Last Calibrated: M 06-Nov-2024 10:03

Report Summary

Data	WEBSCAN 020 CAL.
Symbology	DataMatrix
Device Name	DM475V-DPM

Verification Grades

Standard	Grade	Aperture	Wavelength	Lighting	Formal Grade
ISO 15415:2011	4.0 (A)	16	660	30T-NS	4.0/16/660/30T-NS
Auto	Pass				

Image



DataMatrix Quality Parameters

1. Unused Error Correction (UEC)		100%	4.0	A	PASS
2. Symbol Contrast (SC)	RI/Rd (83/6)	76%	4.0	A	PASS
3a. Modulation (MOD)			4.0	A	PASS
3b. Reflectance Margin (RM)			4.0	A	PASS
4. Axial Nonuniformity (ANU)		0.2%	4.0	A	PASS
5. Grid Nonuniformity (GNU)		2.4%	4.0	A	PASS
6. Fixed Pattern Damage (FPD)			4.0	A	PASS
7. Left 'L' Side (LLS)			4.0	A	PASS
8. Bottom 'L' Side (BLS)			4.0	A	PASS
9. Left Quiet Zone (LQZ)			4.0	A	PASS
10. Bottom Quiet Zone (BOZ)			4.0	A	PASS
11. Top Quiet Zone (TOZ)			4.0	A	PASS
12. Right Quiet Zone (RQZ)			4.0	A	PASS
13. Top Transition Ratio (TTR)		0%	4.0	A	PASS
14. Right Transition Ratio (RTR)		0%	4.0	A	PASS
15. Top Clock Track (TCT)			4.0	A	PASS
16. Right Clock Track (RCT)			4.0	A	PASS
17. Average Grade (A/G)		4.0	4.0	A	PASS
18. DECODE			4.0	A	PASS

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Customer Success FMCG

Customer: Global FMCG Manufacturer

Application: Offline ISO/IEC 29158 Verification

Industry: FMCG – Consumer Products

Product: DM475V-DPM Verifier

Purpose

Ensure GS1-compliant identifiers within 2D Code to remain reliably readable throughout the supply chain, all the way to the end customer

Customer Value

- ✓ Reduce costs by preventing customer complaints and rework
- ✓ Ensure codes are produced with the required quality
- ✓ Detect print quality issues early

Customer Feedback:

Cognex provided excellent technical support throughout the project, and the verifier was easy to integrate into the existing production environment. We can now ensure, with minimal effort, that high-quality, GS1-compliant codes are consistently produced throughout the supply chain.

**Advanced
machine vision
made easy**



Thank you

COGNEX