Introducing Hikrobot Smart Cameras: The Future of Automated Quality Control

AGT is proud to present Hikrobot Smart Cameras, a breakthrough in the field of automated manufacturing quality control. These innovative smart cameras are engineered to redefine the standards of precision, efficiency, and cost-effectiveness in industrial imaging. Unlike conventional solutions, our state-of-the-art cameras incorporate the latest advancements in imaging technology, offering unparalleled resolution, advanced lighting options, and robust artificial intelligence capabilities. This powerful combination of features ensures that even the most challenging applications are addressed with ease, enabling your production line to achieve consistent, superior-quality outcomes.

Hikrobot Smart Cameras are designed to serve as a cornerstone for enhancing operational efficiency and boosting profitability. By integrating these cameras into your manufacturing processes, you can enjoy a seamless transition to higher productivity levels without the necessity of a PC.

AGT stands at the forefront of industrial imaging as the exclusive distributor of Hikrobot in North America. We offer an unparalleled support ecosystem that encompasses application assistance, competitive pricing, rapid delivery, comprehensive integration support, and efficient warranty service. Our commitment is to ensure that our clients not only receive the best products on the market but also benefit from a partnership that supports their success at every step.

Precision meets affordability here—ready for fast shipment. Get in touch for a custom quote or experience our technology first-hand through a free online demo.

Sharper, Smarter, Faster:

- **Auto Excellence:** Effortless focus and brightness
- **Mega Clarity:** Up to 25 MP f
- **Speedy Insights:** Instant analysis with onboard computing.
- **Adaptable Programs**: Tailor-made for varied parts and sequences.
- **Optical Flexibility:** Custom light, lens, and polarization choices.
- **Easy Connectivity:** Ethernet IP, Profinet, Modbus, TCP/IP for smooth integration.
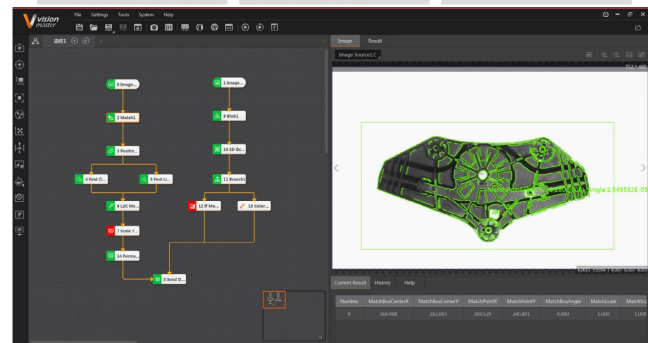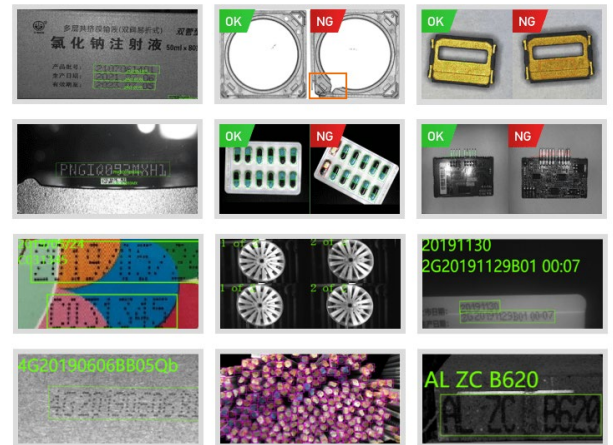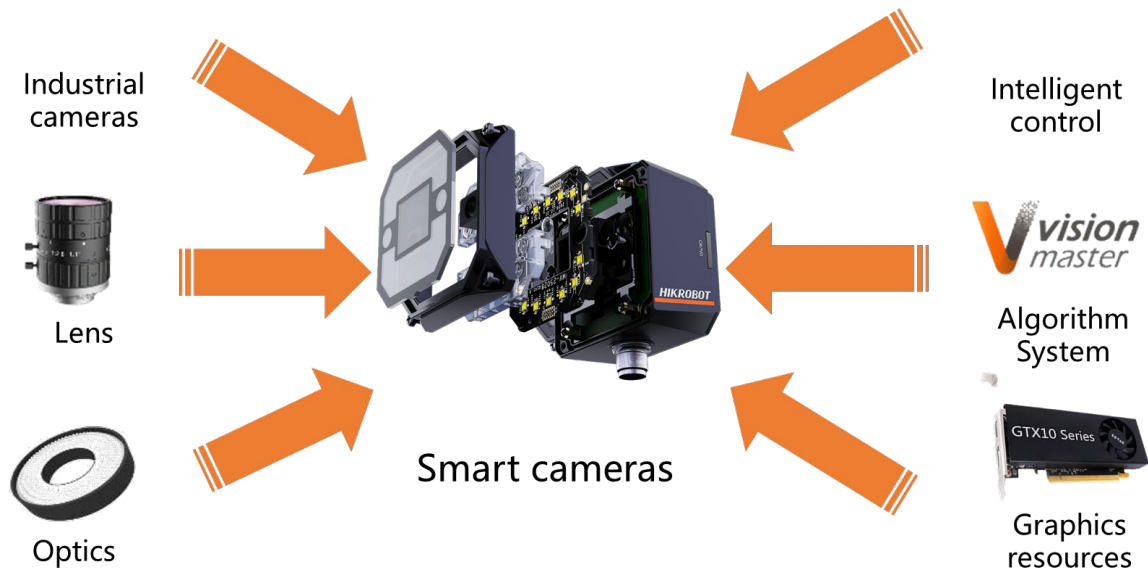
All-in-One Inspection Tool:

- Advanced detection and positioning.
- Accurate measurements and AI-powered sorting.
- A library full of solutions.

Deep Learning Algorithm:

- **Segmentation Genius:** Locates defects with unparalleled precision.
- **Classification Power:** Identifies types and reads codes under any condition.
- **Simplified Process:** Easy training and detection, revolutionizing machine vision interaction.
- **Drag & Drop UI:** Code-free programming, making advanced inspections universally accessible.

Hikrobot Smart Cameras embody the next generation of machine vision solutions. These cameras are not only compact and highly integrated but also boast an impressive suite of functions, including image capture, processing, storage, and communication. The incorporation of advanced DSPs, FPGAs, and expansive storage technologies ensures that our cameras are well-equipped to handle the complexities of modern machine vision applications. As a result, AGT's Hikrobot Smart Cameras offer a modular, reliable, and easy-to-use solution that meets the evolving needs of the industrial sector.

Industrial cameras

Lens

Optics

Intelligent control

vision master

Algorithm System

Graphics resources

Smart cameras

Discover the difference AGT's Hikrobot Smart Cameras can make in your production line. Experience the future of automated quality control today, and let us help you elevate your manufacturing capabilities to new heights.

Leveraging the Smart Camera Advantage

At AGT, we understand the challenges that come with traditional camera systems in automated manufacturing settings. Manual adjustments and complex programming requirements can be significant hindrances. That's why AGT's Hikrobot Smart Cameras are designed to eliminate these pain points, offering a suite of advantages that streamline your production process.

Simplified Image Adjustment:

Traditional camera setups demand hands-on adjustments that are both time-consuming and prone to inconsistency, especially when dealing with multi-product detection scenarios. Here's how Hikrobot Smart Cameras address these issues:

1. **Automated Lens and Iris Adjustment:** Our smart cameras remove the need for manual screw adjustments. With automated focus and aperture control, the Hikrobot cameras ensure that perfect image capture is a consistent, hassle-free process.
2. **Consistent Brightness and Focal Length:** When your production line handles multiple products, maintaining consistency in image capture can be challenging. The Hikrobot Smart Cameras boast intelligent algorithms that automatically adjust brightness and focal length for each product, ensuring uniformity in your quality control without the need for repeated manual adjustments.

Effortless Program Reconciliation:

The complexity of programming can be daunting, particularly for operators with limited technical skills. Hikrobot Smart Cameras make this a non-issue with features designed to empower users at all skill levels:

1. **User-Friendly Programming Interface:** Our smart cameras feature an intuitive interface that simplifies the programming process. You don't need to be an expert to set up or modify the camera settings, making the system accessible to all users.
2. **Solution Building Made Easy:** Building a solution that meets your specific needs can be complex with traditional cameras. With Hikrobot Smart Cameras, the process is straightforward. The cameras come equipped with pre-built solution templates and easy-to-use tools that simplify the creation and deployment of machine vision applications.

[BROWSE MODELS]

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Meet The Smart Camera Family
Cost-Effective Tools - No Matter the Application

Function		SC2000E Series	SC3000 Series	SC6000 Series
Counting tool	Spot/Edge/Pattern Count	✔	✔	✔
Existence tool	Circle/Line/Spot Existence	✔	✔	✔
	Edge Existence	✔	✔	✔
	Pattern Existence	✔	✔	✔
Measuring tool	Color Area	✔	✔	✔
	Line Angle	✔	✔	✔
	Diameter Measurement	✔	✔	✔
	Brightness Analysis	✔	✔	✔
	Contrast Measurement	✔	✔	✔
	Width/Edge Width Measurement	✔	✔	✔
	Greyscale Size	✔	✔	✔
Recognition tool	DL Character Recognition	✔	✔	✔
	DL Character Positioning	✔	✔	✔
	Classification Registration	✔	✔	✔
	Object detection Registration	X.	✔	✔
	Color Contrast	✔	✔	✔
	DL code Recognition	X.	✔	✔
	Color Recognition	✔	✔	✔
Calibration tool	N-point Calibration	X.	✔	✔
	Translation Calibration	X.	✔	✔
	Position Correction	✔	✔	✔
Logical Tool	Branch Control	X.	✔	✔
	If Module	✔	✔	✔
	Logic Judge	✔	✔	✔
	Combination Judge	X.	✔	✔
	Characters Comparison	✔	✔	✔
	Calculator	✔	✔	✔
Defective tool	Anomaly Detection	X.	✔	✔
Deep learning	DL object Detection	X.	✔	✔
	DL classification	X.	✔	✔
	DL image segmentation	X.	X.	✔

Discover high capability at low cost with AGT's Hikrobot Smart Camera Systems, your solution for even the most demanding applications.
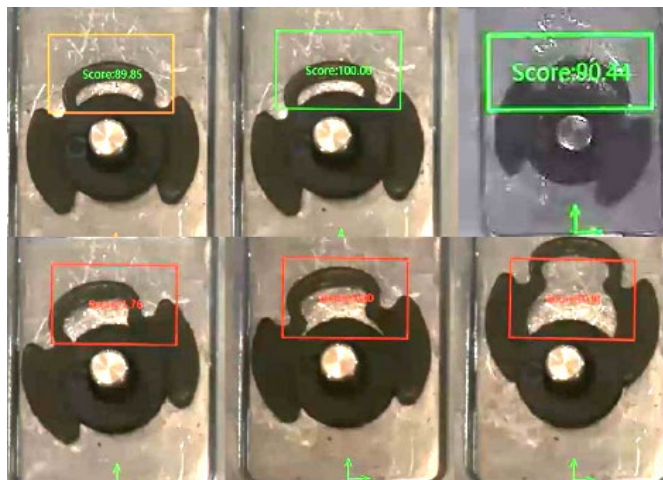
- ***Vision Tailored to You***: We dive deep to understand and build your unique machine vision needs.
- ***See It in Action:*** Through bench tests with your parts, we prove the principle, showcasing our solutions' real-world effectiveness.
- ***Analysis with Precision***: From any image source, we assess and refine, ensuring our tools meet your exact standards.
- ***Guided Camera Selection:*** Our tests lead the way, recommending the perfect camera match for your tasks.
- ***Transparent Results Review:*** Together, we explore test outcomes, aligning technology with your vision.
- ***Confidence in Your Choice:*** We're here to ensure you feel fully informed and confident in your equipment investment.

Elevate Your Production Line with the Smart Cameras

Effortless Quality Control with Deep Learning

Challenge: Ensuring the correct installation of retaining clips, accepting multiple correct angles as long as the clip is fully inserted.

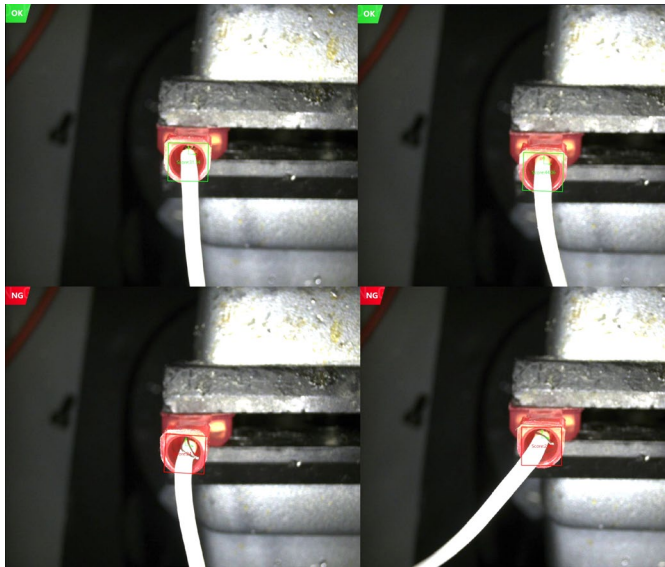**Solution:** Training the SC3000 series Smart Camera with images of good and bad installations allows for accurate verification of clip positioning.

Cable Harness Inspection with AI

Challenge: Identifying incomplete wire insertion in cable harnesses during fabrication.
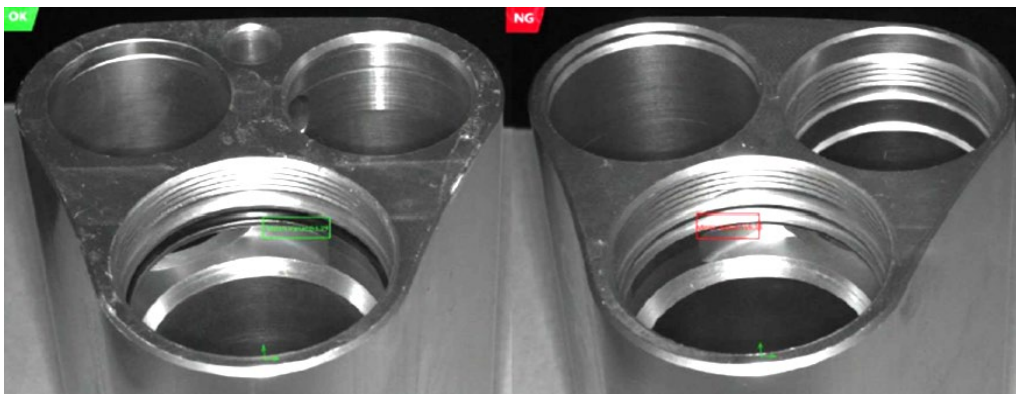
Solution: The MV-SC3016C, powered by Defect Detection AI, learns from examples to spot any discrepancies in wire insertion, ensuring each harness is perfect.

Presence/Absence of O-Ring

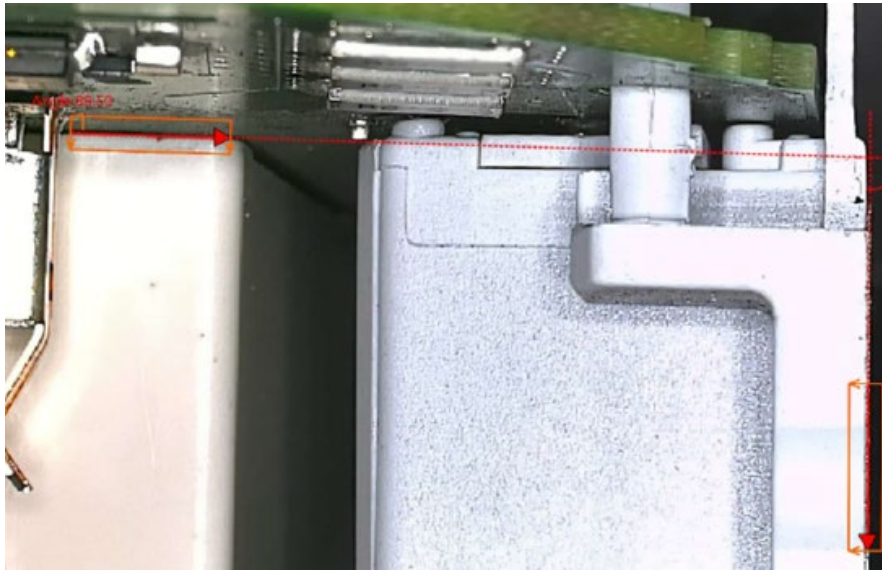**Challenge**: Verifying the presence of an O-Ring using simple visual cues.

Solution: The MV-SC2016 performs color or contrast measurements to confirm the presence of O-Rings by analyzing pixel colors in the specified area.

Angle Verification for Electronics Installation

Challenge: Ensuring connectors on PCB boards are correctly angled for housing fit.

Solution: Utilizing Line to Line Angle Tool for precise angle measurement, ensuring component alignment within stringent tolerances.
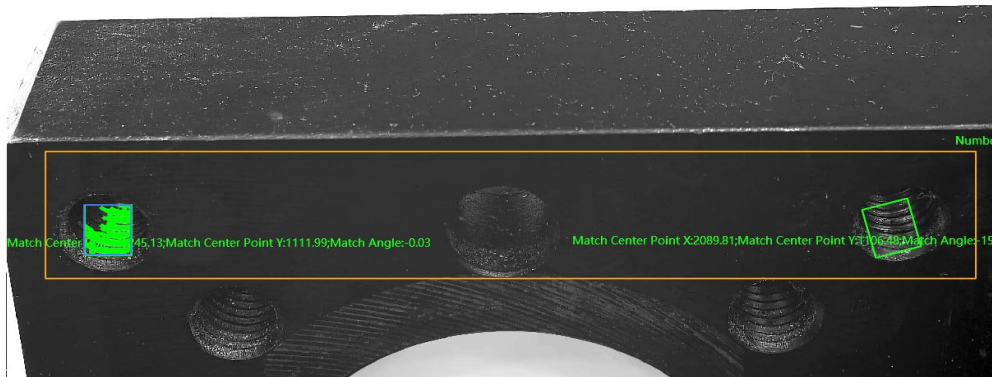

The Thread Checker

Challenge: Identifying thread patterns on surfaces.

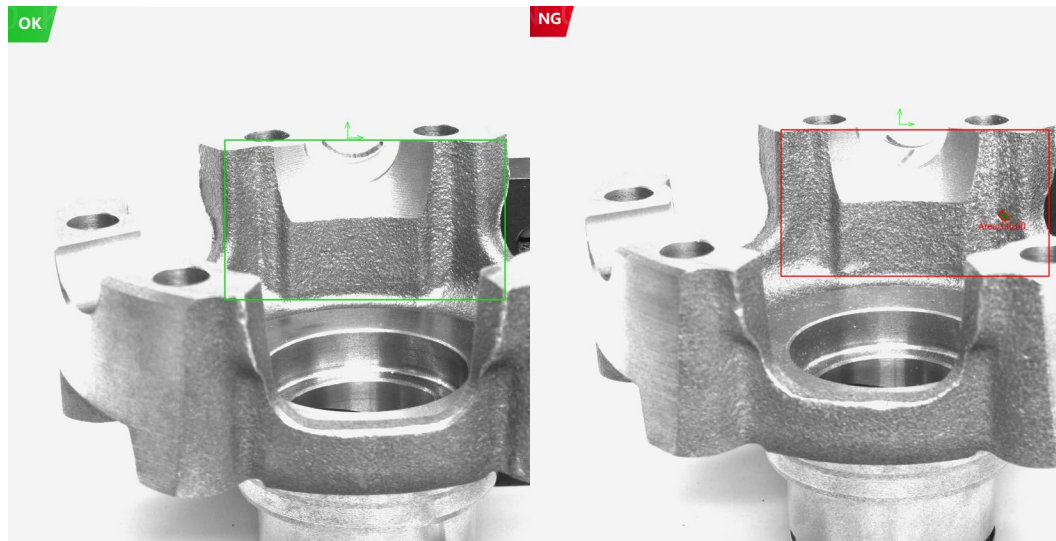**Solution**: Pattern Recognition technology enables the Smart Camera to automatically detect and confirm threaded holes within view.

Detecting the Undetectable

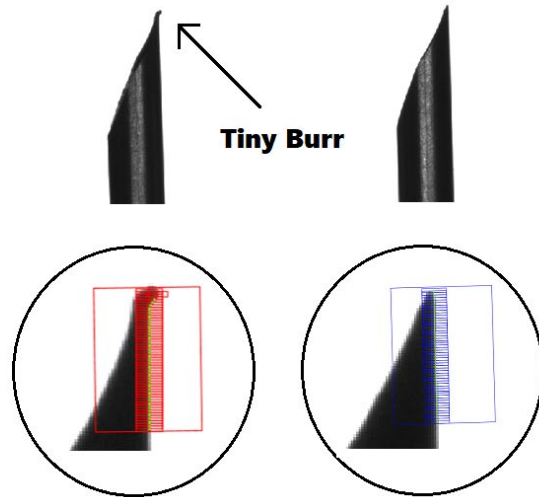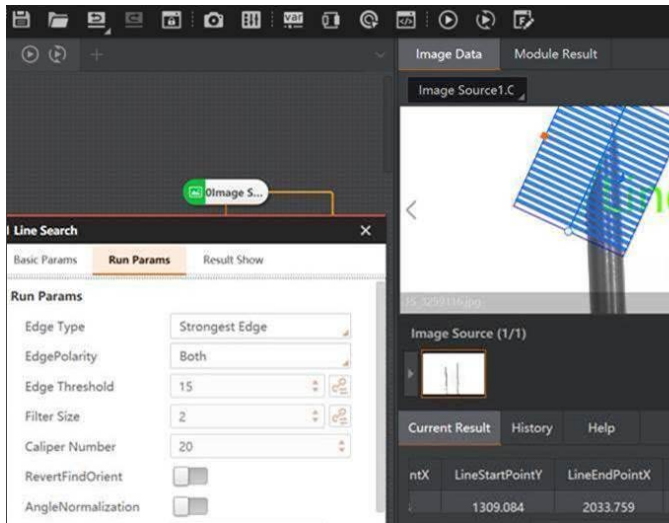**Challenge**: Detecting minor porosity on uneven surfaces.

Solution: The Smart Camera's Spot or Blob detection capabilities effortlessly identify areas of concern, setting precise tolerances for defect sizes, ensuring that even the slightest imperfections are caught.

Sharpening the Edge in Needle Inspection

Challenge: Maintaining the sharpness of surgical needles through subsequent handling processes.

Solution: Utilizing 25 MP resolution and telecentric magnifying lenses, the Smart Camera conducts a final sharpness inspection with simple line searches, applying tight limits on deviations for micron-level precision.

Tiny Burr

Text Recognition That Goes the Distance

Challenge: Ensuring the correct orientation of tiny letters on door checker assemblies from a distance.

Solution: A 20 MP Smart Camera equipped with OCR and AI capabilities meticulously verifies assembly orientation, preventing costly errors and scrap.
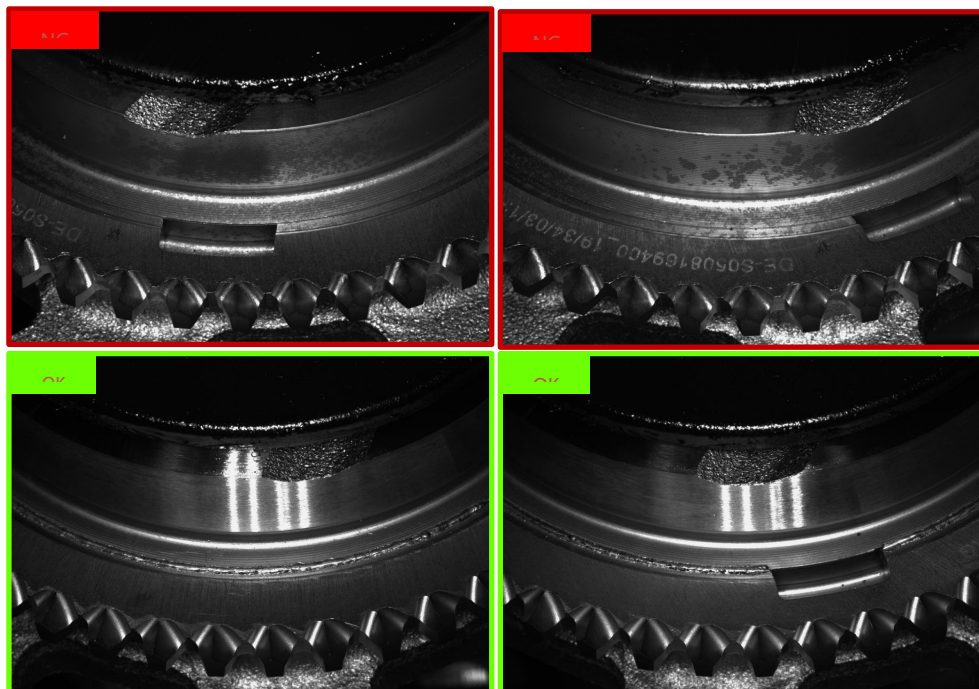
Weld Inspections Redefined

Challenge: Inspecting welds for presence/absence and evaluating varying qualities of welds.

Solution: From basic color contrast measurements to Deep Learning Defect Detection, the Smart Camera distinguishes between acceptable and unacceptable weld qualities, teaching the system with images of good and bad welds.
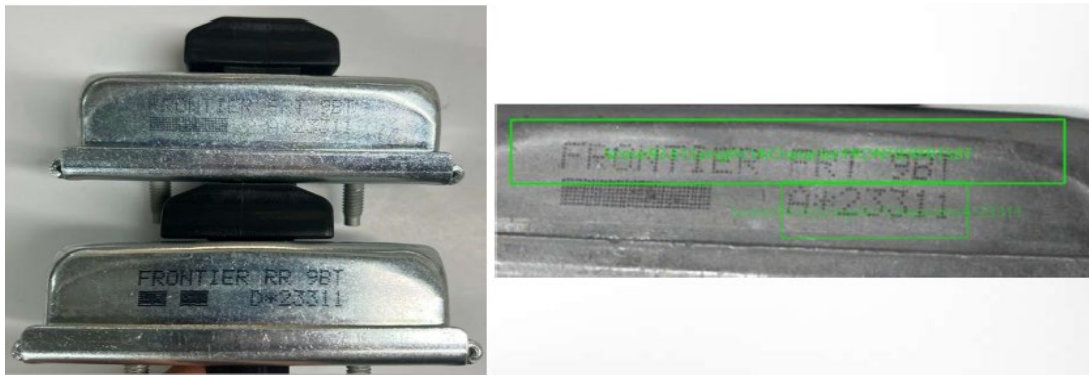

Wheel weld detection in the automotive industry

The Master of Reading Under Pressure

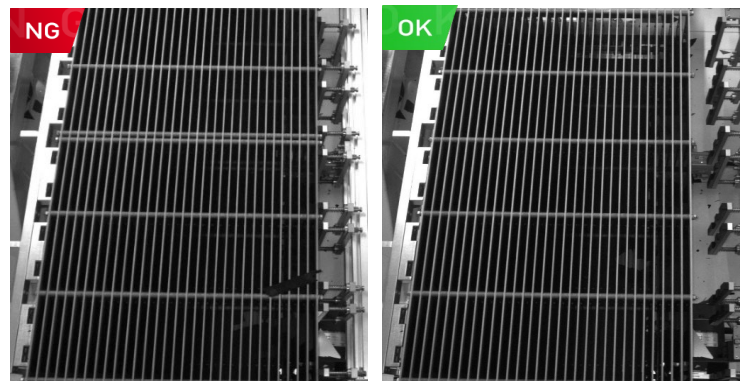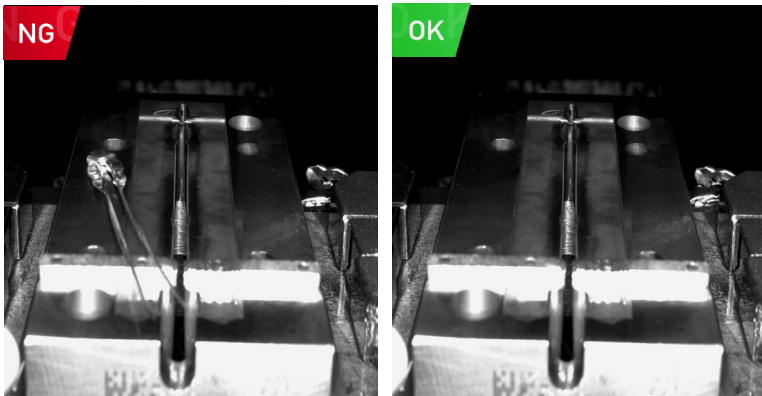**Challenge**: Reading inconsistent and faint printing, a common issue in quality control.

Solution: The SC3016 (1.6 MP) Smart Camera, equipped with a polarized lens, enhances OCR accuracy even under challenging conditions, ensuring reliable identification every time.

Foreign Object Detection

Challenge: In production environments, the presence of unintended foreign objects can lead to product contamination or machinery damage.

Solution: The SC3000 series Smart Camera employs real-time object detection algorithms to identify and flag any foreign objects on the production line. This ensures that only pristine products proceed to packaging and that machinery is safeguarded against potential damage.

Spring Condition Assessment for Quality Assurance

Challenge: Springs are critical components in many products, and assessing their condition for consistency and reliability is crucial.

Solution: Leveraging the precision imaging capabilities of the SC3000 series, the camera performs detailed inspections of springs, measuring parameters such as tension, compression, and shape to determine their condition. The camera's advanced vision system can detect even the slightest deviations from specified conditions, ensuring that every spring meets your stringent quality standards.