

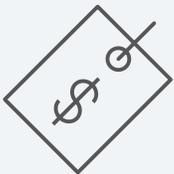
# Intelligent visual inspection, anywhere.

The competitive nature of the market today demands high-quality, affordable goods. To satisfy this demand, manufacturers must reduce time to market and lower costs without sacrificing product quality.

The greatest challenges that manufacturers deal with are the difficulty, cost and complexity of implementing new technology on a running production line. Making it all work without disrupting production or causing compliance and safety issues adds to the balancing act.

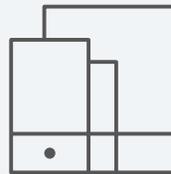


**Bottom line: Business leaders need an easier way to reduce manufacturing errors.**



## A cost-effective and efficient solution

Manufacturers need a low-cost manufacturing computer vision solution that can scale with their needs, with little or no interruption to production during training and deployment. IBM Visual Inspector enables manufacturing teams to use mobile devices — trained by IBM Visual Insights — that quickly identify defects on the line. It's a big advantage for teams pressured to produce higher-quality products quickly and with confidence.



## Introducing IBM Visual Inspector

IBM Visual Inspector uses commercial, off-the-shelf devices to provide immediate, actionable notifications of any production line defects via email or SMS. This intuitive solution is simple to operate, requires minimal operator training, and scales globally with the use of ubiquitous mobile hardware and iOS. Paired with IBM Visual Insights, IBM Visual Inspector is engineered to continuously improve accuracy.

IBM Visual Inspector, deployed with IBM Visual Insights, simplifies the process of gathering data, training new AI models, and deploying those models at the edge. The mobile device gathers datasets, leveraging the high-resolution integrated imaging capabilities inherent in iOS/iPadOS. Manufacturing leaders can use these images and datasets to train and refine custom AI models using Visual Insights. They can then quickly and easily deploy the resulting custom AI models to mobile infrastructure using Core ML. Configurable business rules can be applied to the results to determine whether subsequent action or alerting is required. Supervisors can use the integrated reporting dashboard in the app to gain insights into inspection performance, and supervisor mode to manage IBM Visual Inspector apps running on remote devices.

With IBM Visual Inspector, error-proofing can take place anywhere. iPads and iPhones are less expensive than buying and installing fixed cameras and also offer multiple connectivity options. The global footprint of the iOS platform provides ubiquitous visual inspection of production lines anywhere in the world.



**Flexible**

Work anywhere – no longer tied to the manufacturing floor



**Agile**

Tools, training and technology at your fingertips



**Cost-effective**

iOS/iPadOS devices are less expensive than industrial cameras



**Global**

Worldwide access with the iOS/iPadOS platform



## Real-time computer vision quality inspection

IBM Visual Inspector works together with data management and training hardware, a cloud or on-prem computer vision suite (IBM Visual Insights), and iOS/iPadOS devices. One-on-one expert training also ensures a scalable foundation for real-time computer vision quality inspection is delivered.



Perform visual inspection of the production line using commercial, off-the-shelf mobile devices such as iPads and iPhones.



Easily scale in to view multiple points on the line as well as globally to view all plants and geographies.



Identify potential quality issues in real time and configure to notify key stakeholders immediately.



Enable a positive feedback loop that improves model accuracy by building large QA data sets to identify potential training or manufacturing problems and notify supervisors via email or SMS.



**IBM Visual Insights with CoreML**



Train mobile-enabled DL models and create custom AI models



Load custom models and run inferences on iOS devices

## Dramatically improve production quality and speed

A major American auto manufacturer wanted to identify production issues quicker to increase the quality of its product. The manufacturer deployed on the production line the IBM Visual Inspector iOS app in conjunction with IBM Visual Insights and the IBM Power Systems server for the 2020 launch of two major models in the North American market.

This new solution prevented 32 vehicle mis-builds in the first 30 days. The “detect and correct” solution, with self-learning machine algorithms, eliminated the need for a data scientist. This enabled the manufacturer to respond to process issues in hours rather than weeks or months. In addition, this manufacturer utilized a case with a removable battery pack, enabling the device to operate an entire week without the need to install power or ethernet cabling for immediate installation on the assembly line.

The manufacturer is now able to quickly respond to production issues, reducing rework and improving overall product quality. Soon, another 30 stations are scheduled for deployment at its regional assembly site.

## Flexible, scalable solution optimizes production quality

IBM Visual Inspector delivers a complete error-proofing package to identify potential issues on a production line in real time and notify stakeholders in time to make corrections. The solution works together with data management and training hardware, a cloud or on-prem computer vision suite (IBM Visual Insights), and iOS/iPadOS devices. One-on-one expert training also ensures a scalable foundation for real-time computer vision quality inspection is delivered.

Error-proof your manufacturing by improving the efficiency of your production line and the quality of your output with mobile visual inspection.

## Intelligent mobile inspection, deploy anywhere in minutes

Contact an [IBM representative](#) or call us at 1 [866-426-2929](tel:866-426-2929) to find out how IBM Visual Inspector can help you optimize your manufacturing environment.

