

CASE STUDY SWIFT PRO EDGE CALIBRATED FOR AUTOMOTIVE LIGHTING INSPECTION

Customer: Marelli (End User), DOGA Maroc (Technical Partner)

Sector: Automotive manufacturing

Application: Quality control of plastic components for rear light assemblies

Marelli, a Tier 1 Italian automotive supplier, required a reliable measurement solution to support a production line for plastic components used in rear light assemblies. Working in collaboration with DOGA Maroc, a local partner with technical expertise in automotive systems and industrial integration, Vision Engineering provided on-site calibration and support for the Swift PRO Edge system. The system was installed at a site within Tanger Automotive City (TAC), a strategically important hub for the automotive industry in North Africa.

The challenge

Plastic components for vehicle lighting must meet strict cosmetic and dimensional standards. Minor defects such as weld lines, sink marks, inclusions, surface variation or flash can affect both performance and perceived quality. The inspection solution needed to provide accurate, repeatable results while keeping the process quick and easy for operators.

The solution

Vision Engineering's Swift PRO Edge was selected for its:

- Micron-level measurement accuracy
- Real-time feedback with high-definition imaging
- Capability to analyse curved and irregular surfaces
- Fully digital design, with screen-based viewing for improved ergonomics and consistency

Installation and calibration were delivered jointly with DOGA Maroc, ensuring a smooth transition into production.

The outcome

Swift PRO Edge is now in daily use on a dedicated lighting line, helping ensure compliance, detect faults early, and maintain visual standards for plastic parts used in rear light assemblies, supplied to several global automotive manufacturers. Its compact footprint allows it to sit close to production, making inspections faster and more responsive to process needs.

FAQs

Q: Why is Swift PRO Edge suited to automotive inspection?

A: It delivers the precision needed for components with tight tolerances and complex geometry, such as lighting housings and decorative trim. Using the screen helps operators check results easily, share measurements on the spot, and capture documentation more efficiently.

Q: What makes Swift PRO Edge suitable for plastic components?

A: It is used here to inspect injection-moulded parts for rear lighting. The digital imaging and micron-level accuracy make it ideal for detecting defects like weld lines, sink marks, flash or surface variation, even on curved or textured surfaces.

Q: Can Swift PRO Edge be integrated into the production workflow?

A: Yes, it is commonly used as a near-line inspection tool, positioned close to production to support fast quality checks without disrupting output. While it is not an inline system, its compact footprint and ease of use make it well suited to regular in-process inspections.

