

Automotive Vehicle Safety Systems Tier One Suppliers.



CS24D Color Sensors use 24 ultra-bright LEDs to form consistent diffuse lighting over a wide area. This unique configuration delivers more accurate color detection on challenging textures and grained surfaces as well as shades of gray and dark colors. Each CS24D can be taught to recognize up to fifteen different colors and performance is easily optimized using Delta's ColorSense software.

At a Glance

- **Project:** Automotive Vehicle Interior Components
- **Company:** Tier One suppliers.
- **Location:** Midwest, USA
- **Challenges:** Inconsistent color verification performance from on-line color sensors.
- **Solution:** CS24D color sensors provide consistently accurate color verification on a wide variety of textured materials.
- **Benefits:** CS24D played a key role in reducing errors for a more cost-effective Just-in-Time program

Summary:

The Delta CS24D is able to quickly and reliably provide color sorting and verification in on-line production applications. It is well-suited for automotive interior components, handling a wide variety of materials, including carpet, cloth, leather, smooth and textured vinyl and metal. The CS24D also differentiates between shades of gray and subtle colors better than ordinary sensors.

Challenge:

Just-in-Time programs demand that Tier One Suppliers provide shipments of components packaged to match up with the vehicles being processed at a given time. This means that various colored components must be packaged together—suppliers no longer can send different colored parts in separate boxes and have the assembly line pull them as needed. Under Just-in-Time, a box of 10 headliners, for example, may be packaged as follows: gray, tan, beige, beige, tan, gray, blue, beige, gray, black and tan. Color verification is a deceptively difficult task for both humans and vision systems and mistakes can be very expensive; The Biggest Automotive companies have been known to require 100% retesting by a third party if errors are found.

Solution:

The CS24D manufactured by Delta Computer Systems of Vancouver, Washington is used to verify the color of the component being processed, allowing automated color verification.

Benefits:

By ensuring the correct color component is being processed in automated assembly operations, the CS24D color sensor helps to eliminate errors, saving costly rework. Its unique performance advantages provide success in challenging applications.

For the complete case studies and a white paper on color sensors, see www.colorsensors.com