

Customer

A high-volume auto manufacturing facility

Customer Requirements

Easy, reliable scanning of QR codes on vehicle transmissions

Banner Solution

iVu Plus BCR with 25 mm Micro Lens and WL50S high-intensity LED spot light

Why Banner?

Integrated Touch Screen – Intuitive user interface guided device setup and operation

Flexibility – Sensor adapted to a range of available lens options to provide the image resolution necessary for the application

Customer Benefits

Process Efficiency – Reliable, automated data collection from difficult to read QR codes improved assembly times and staff availability

iVu Plus BCR Features

- Reads, compares and validates data within several different barcode standards

- Storage and control for up to 30 inspections

- Ethernet and RS-232 communications

WL50S Features

- Highly concentrated, focused light available in three colors
- Long-lasting LED light minimizes replacement costs

Learn More

Visit www.bannerengineering.com for product information and to locate a distributor

- [iVu Plus BCR bar code reader overview](#)
- [WL50S LED spot light overview](#)

Manufacturer Improves Build Times Using Vision Sensor to Scan Component QR Codes



iVu Plus BCR with 25 mm Micro Lens collects data from dense, difficult-to-read QR codes on vehicle transmissions. A WL50S high-intensity LED spot light illuminates the target area

Background

An auto manufacturing plant annually produces vehicles numbering in the hundreds of thousands. To expedite production at this level, many vehicle components are stamped with a QR code. Information contained in the codes guides assembly and differentiates unique parts. This facilitates the manufacture of multiple vehicle models in a single location and simplifies tracking for quality control purposes.

Challenge

Prior to installation, engines and transmissions are coupled together on the assembly line. A worker using a hand held bar code reader scans the QR code on each transmission. The codes are small, have minimal quiet zones and are dense with embedded information. Additionally, the bar code readers have a limited range. Combined, these factors made scanning the QR codes difficult, adding time to the assembly process and diverting labor resources.

Solution

Banner representatives visiting the facility installed an iVu Plus BCR bar code reader 51 cm from the target on the conveyor rail. A number of lens options were tested before a 25 mm Micro Lens was selected. This lengthened the working distance of the sensor, providing the resolution needed to read each QR code. A WL50S LED spot light was installed alongside the iVu Plus BCR. This provided highly concentrated, even illumination at the target with no shadows.

Getting started was easy. The iVu Plus BCR features an integrated touch screen, requiring no PC to operate. The intuitive user interface provides guidance through setup and configuration and allows access to the sensor's advanced capabilities.

The manufacturer deployed the Banner solution on each assembly line in their plant. The implementation of a reliable, automated scanning solution allowed workers to focus on vehicle assembly and resulted in improved build times.