

Case Study 01 : Brilliant eSMART BIN Solution Implementation for largest manufacturing of oil coolers & Exhaust Gas

Client Overview

Industry : Automotive Components
Product Portfolio : India's Largest Manufacturer of Oil Coolers & Exhaust Gas
Recirculation (EGR) Coolers
Headquarters : Pune, Maharashtra, India

That client is a pioneer in the design and manufacturing of highly engineered oil coolers and EGR coolers for leading automotive OEMs across India. With multiple production facilities and a focus on delivering quality and reliability, POSH is a key player in the automotive components industry.

Project Overview

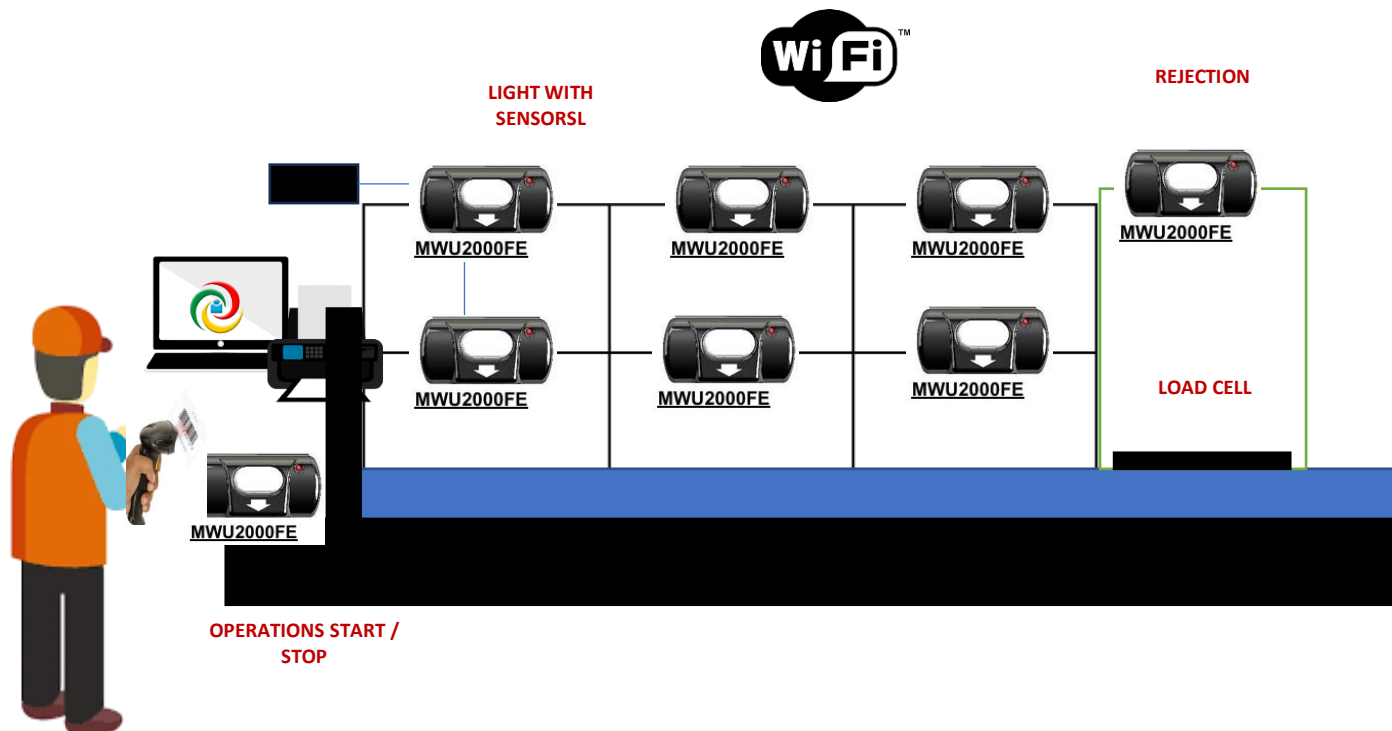
Solution Deployed : Brilliant eSMART BIN Complete Turnkey Solution

Scope :

- Assembly Station Setup
- Software Application with Recipe Management
- Pokayoke (Error-Proofing) Solution
- Pick to Light System for Guided Assembly
- Weighing-based Validation System
- Cloud Connector for Data Capture & Analytics

Brilliant successfully implemented a complete Industry 4.0 turnkey solution tailored to POSH's assembly and quality assurance processes.

Solution Highlights



☒ Assembly Station with Guided Operations

Fully equipped assembly stations integrated with:

- Pick to Light System
- Pokayoke-enabled processes
- Recipe-based instructions
- Workstation Configuration

☒ Pokayoke (Error-Proofing) Solution

Ensures process correctness using:

- Step-by-step operator guidance
- Pick to Light indication
- Real-time validation via precision weighing

☒ Software Application

- Recipe Creation & Management
- Station Configuration Flexibility
- Operator Shift & Material Tracking
- Intuitive User Interface for Operators & Supervisors

☒ Cloud Connector & Analytics Platform

Brilliant's Cloud Connector seamlessly connects shop-floor data to the cloud, enabling:

- Real-time data capture (Operator ID, Shift, Material Consumption, Productivity)
- Centralized Dashboard for Analytics and Reporting
- Multi-location Station Data Consolidation
- Insights into Productivity, Rejection Trends, and Consumption Patterns

Benefits Delivered

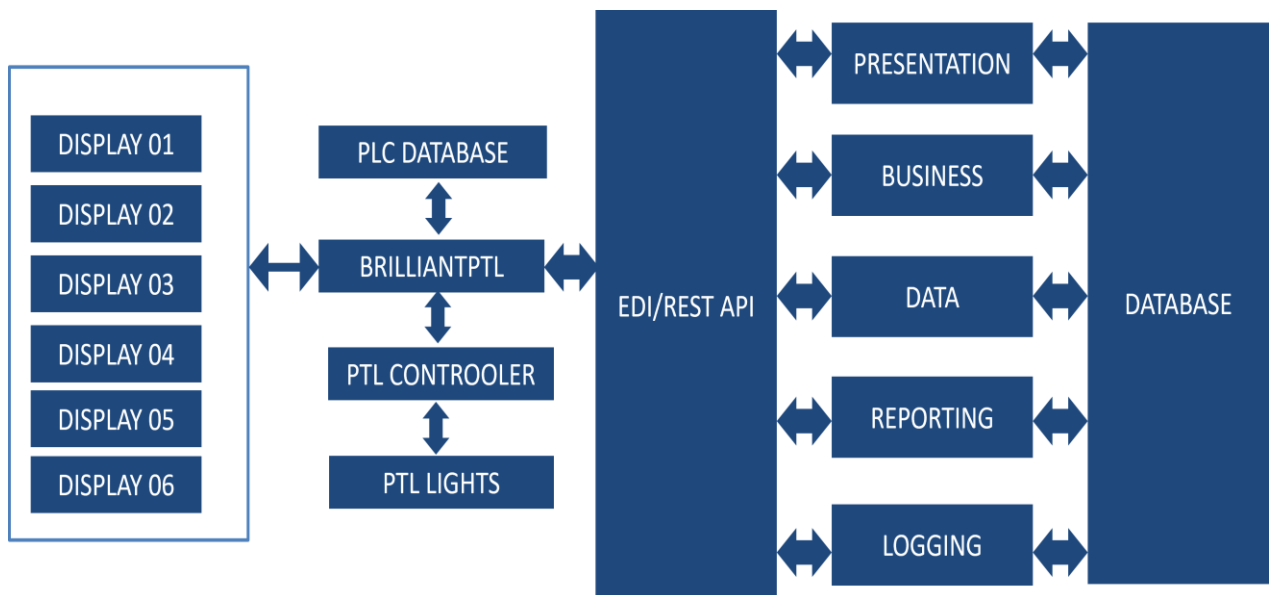
Benefit	Impact
Error-Free Assembly	Eliminated assembly errors with Pokayoke & validation
Real-Time Monitoring	Increased visibility of shop-floor activities
Process Traceability	Complete traceability of operators, shifts & consumption
Productivity Insights	Improved decision-making with analytical dashboards
Reduced Rejections	Data-driven corrective actions reduced rework & rejections
Cloud Accessibility	Multi-location access & consolidated reporting

Case Study 02: Brilliant eSMART BIN Solution Implementation for largest Automotive industry

CLIENT OVERVIEW

Industry : Automotive Components
Product Portfolio : Global automotive industry
Headquarters : Japan

It has been a significant player in the global automotive industry for over six decades. We are one of the prominent manufacturers of automotive components for the OEMs and Tier-I suppliers.



IMPLEMENTATION PROCESS**SECTION 1: BOQ BARCODE & JOB CARD PRINTING****OBJECTIVE:**

Ensure that production orders are accurately read and configured before initiating manufacturing processes.

IMPLEMENTATION:

- Operators scan production orders using barcode scanners integrated with the BrilliantWCS application.
- The system retrieves order details and displays them on the operator's screen.
- Operators can view instructional videos to ensure correct configuration of order parameters.
- The system allows modifications to order configurations as needed before proceeding to material picking.

OUTCOME:

- Reduction in manual errors while reading production orders.
- Improved understanding of order requirements through instructional videos.
- Enhanced efficiency in configuring orders before moving to the next step.

SECTION 2: MATERIAL PICKING WITH PTL & INSTRUCTIONAL VIDEO**OBJECTIVE:**

Optimize material picking through Pick-to-Light (PTL) technology and instructional guidance.

IMPLEMENTATION:

- The operator presses the Start button to initiate kitting operations.
- The system activates bin lights corresponding to the required materials.
- An instructional video guides the operator through the picking process.
- Items are picked sequentially from bins, ensuring correct selection.
- Upon completion, the system validates the operation and proceeds to the next phase.

OUTCOME:

- Increased picking accuracy through PTL system.
- Reduction in material waste due to incorrect picks.
- Faster training of new operators through instructional video integration.

SECTION 3: ASSEMBLY PROCESS ACROSS STATIONS**Objective:**

Facilitate a seamless assembly process using guided material selection and automation.

IMPLEMENTATION:

- At each station, the assigned operator presses the Start button to begin picking materials.
- The PTL system indicates the required materials for assembly.
- The operator selects and assembles parts according to displayed instructions.
- The partially assembled component is passed to the next workstation.
- The Brilliant PTL application manages and updates instructions dynamically at each station.

OUTCOME:

- Standardized assembly procedures across multiple workstations.
- Reduction in assembly errors through automated instructions.
- Improved workflow management and traceability.

SECTION 4: FINAL TABLE – QUALITY CHECK & FINISHED GOODS GENERATION**OBJECTIVE:**

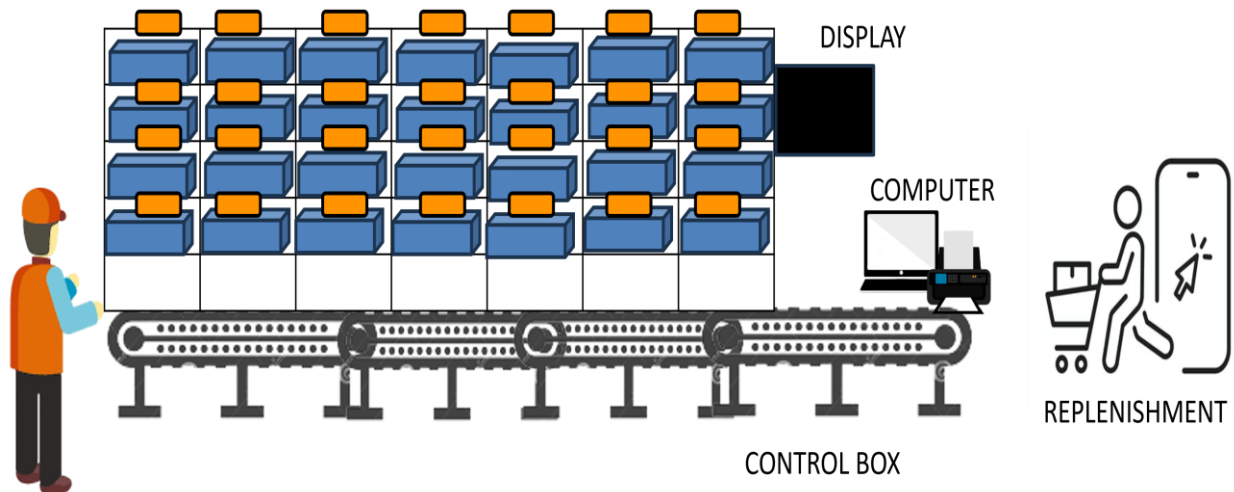
Ensure finished goods meet quality standards before dispatch.

IMPLEMENTATION:

- The operator at the final table scans the barcode to initiate quality inspection.
- The quality check is performed according to predefined standard procedures.
- The Brilliant PTL application records inspection results.
- Based on the inspection, the system automatically updates the finished goods inventory.

OUTCOME:

- Enhanced quality control through a standardized inspection process.
- Automated tracking of finished goods inventory.
- Minimized errors in final product release.

**OVERALL IMPACT OF IMPLEMENTATION**

1. Efficiency Improvement: Reduced manual intervention, leading to faster operations.
2. Error Reduction: PTL and instructional videos minimized picking and assembly errors.
3. Quality Assurance: Automated inspections ensured higher-quality finished goods.
4. Workforce Productivity: Reduced training time and increased operator accuracy.
5. Traceability & Reporting: Seamless data tracking improved decision-making.

CONCLUSION

The successful implementation of the BrilliantWCS and Brilliant PTL applications transformed the manufacturing process, enabling streamlined operations from order reading to final quality control. The integration of barcode scanning, PTL, and instructional videos significantly improved efficiency, accuracy, and overall productivity. The company achieved a substantial reduction in errors, enhanced material management, and optimized production timelines, leading to increased customer satisfaction and operational excellence.