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CONNECTING PEOPLE
AND ROBOTS

▶ **CeLLife Line Pro Installation at customer premise**

Intek scales Battery Diagnostics with CeLLife Technologies

Client

Intek Engineering

Description

Intek develop and manufacture robots, software and automation for a variety of industries

Problem

Intek required a scalable battery cell and module diagnostics solution, which is capable of individual cell diagnostics prior to the module assembly and ensuring quality assurance of the finished modules.

Existing options were oversized, offered limited analytics capabilities, and were difficult to integrate with back-end systems.

Solutions

CeLLife Technologies delivered both fully tailored battery diagnostics solutions and measurement hardware; designed to address Intek's specific challenges.

The solution includes the **CeLLife Line Pro**, CeLLife Signal Processor, and CeLLife Local Server, seamlessly connected to ensure precise battery cell measurement and data flow.

Benefits

The implemented solution delivers a scalable, integrated system that improves the precision and efficiency of battery measurement processes, addressing Intek's technical and operational needs.

This enables comprehensive quality control for 100% of incoming cells without slowing production. A single solution for all quality control needs, replacing multiple conventional methods

CRITICAL CHALLENGES

Certain critical issues in the battery manufacturing process hindered Intek's ability to maintain high-quality standards and achieve efficiency in battery testing.

- **Limited Analytics:** Existing solutions provided minimal data and lacked advanced diagnostic capabilities for battery cells and packs.
- **Integration Difficulties:** Traditional systems could not seamlessly connect to Intek's back-end systems for data analysis and reporting.
- **Large and Inflexible Systems:** Existing measurement systems were large in size, making them impractical for scalable deployment across production lines.

SOLUTION & IMPLEMENTATION

Our solution, **CeLLife Line Pro**, is integrated into the robotic production line for precise battery measurement. In the beginning of the assembly line, it measures **cells** as they move through the process. When assembly of a module is ready, at the end of assembly line, our **module** measurement device is used for quality control, ensuring **consistency, traceability, and zero-defect** delivery.

The CeLLife Signal Processor collects and processes measurement data, then sends it to the CeLLife Local Server for storage and management. The server provides an API for initiating measurements, retrieving results, and integrates with Intek's system for notifications. It also supports remote updates and operates on Intek's virtualization platform.

