



RENOVATION OF TEST SYSTEMS FOR LABORATORY AUTOMATION EQUIPMENT

Our customer is an international company for the development and production of laboratory automation systems. These systems significantly enhance the quality of diagnostic services, provide rapid and secure delivery of laboratory results to both doctors and patients, and improve the protection of laboratory staff. In conjunction with a production relocation, approximately 30 GxP-related test systems of varying complexity are to be renovated and optimized before the transfer.

Development with a tight schedule

The project focus was to design and develop the new test systems within one year. To achieve this goal, the test systems were divided into five work packages. By merging functions, it was possible to reduce the number of test systems from 30 to 25. The test systems were developed using various technologies including housing boxes from 3D printing, sheet metal components, profiles, motors, pneumatics, and control cabinet construction. The integration of an optical system (camera), various sensors, and a laser were also part of the upgrades.

Successful commissioning after one year

The project was completed on schedule and the customer received 25 test systems for the new production site even with the time pressure and a lack of documentation for the previous test systems. Our delivery included the full set of project documentation.

The new test systems greatly increased productivity, process reliability, flexibility, and the protection of laboratory staff. The high level of customer satisfaction has already allowed konplan to secure additional test system projects..

Result

- Modular, customer-specific test equipment
- Increased productivity, process safety, and flexibility
- Personnel safety
- Ease of operation

Methodology & Technologies

- CAD-Design, SolidWorks
- PCB-Design, Altium
- NI LabVIEW

Scope of Services

- Analysis, Feasibility Studies
- Concept development, Architecture, Software
- Installation, Testing, Startup (following GxP Guidelines)
- Technical Documentation



1 year



15 employees – konplan



Analysis and Idea Generation through Support & Operations

