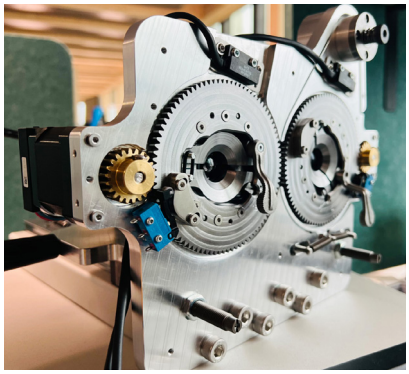
konplan

Assembly Optimization and Sharpener Process Automation for People Counting Systems



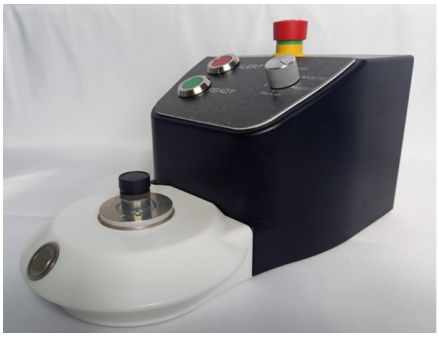
Xovis is a world market leader in sensor-based solutions for people counting and offers efficient, tailored systems for tracking people flow. These systems consist of optical sensors and sophisticated software for monitoring people flow through airports, shopping centers, and public transport. The optical sensors are assembled and calibrated in large quantities at Xovis. The goal in production was to reduce manual activities, increase throughput, and improve quality.

Include Users in the Development Process

A thorough analysis of the sensor assembly and calibration process identified the work steps with the greatest potential for increasing efficiency and improving quality. Based on various rough conceptual designs, Xovis released a lens screwdriver and a lens sharpener for development and implementation. For the lens screwdriver device which fixes the lens to the lens holder, the ideal solution for the design was developed using simple mockups powered by cordless screwdrivers in collaboration with the users. For the automatic lens sharpener used to adjust the focal point of the lenses in the fully assembled sensor, a solution was selected that allows the processing of varying lens diameters as well as products from multiple suppliers. In the concept phase, the device operation was optimized together with the users on simple models. The resulting device immediately met the requirements of Xovis and was implemented on schedule for production.

More Efficient and with Improved Quality

The table-top screwdriver device reduces the screw-in time of the lenses by 60% and ensures a continuously consistent quality regardless of the operator. In the case of the lens sharpener, the sensor calibration was optimized by paralleling individual process steps and the resulting throughput was increased by 200%.



Result

- Increased throughput in the sharpening subprocess by 200%
- Qualitative improvements: More homogenous, constant, and reproducible quality
- Reduction of supplier dependency

Methodology & Technologies

- Stepper Motor Drive
- Implementation of key components in SLM
- Equipment Construction

Scope of Services

- Process Analysis
- Ideation
- Conception
- Detail Construction
- Prototyping
- Implementation

12 months

2 employees (konplan)

From analysis & ideas to production & support

Our customer:

XOVIS

Further information:
www.konplan.com