



Fotos: ANYbotics AG



Zollner Elektronik AG Performance:
Serial production.



Success Story: **ANYbotics AG**

„Zollner as an efficient partner for the complex serial production of the advanced ANYmal legged robots from ANYbotics“

Customer and product:

ANYbotics AG was founded in 2016 and is a leading Swiss robotics company that develops, produces and sells novel mobile legged robots for autonomous inspection tasks of industrial plants, machines and infrastructure. Their offering consists of an end-to-end solution of robots and software as well as training and product installation. ANYbotics is therefore not only a hardware manufacturer, but rather sees itself as a partner for successful technology adaptation with the goal of supporting different industries with robotic technologies, like the ANYmal legged robot.

Zollner Elektronik AG and ANYbotics have been cooperating since 2020 with the aim of transferring the legged robot to serial production. ANYmal is a legged robot that can move autonomously in complex environments with stairs or unex-

pected obstacles and has powerful sensor technology with corresponding onboard data processing. It is used in environments that are accessible to humans but can be hazardous under certain circumstances, and is thus intended to help improve safety as well as the efficiency of industrial work.

ANYmal includes walking, spatial orientation, communication and basic sensory functions. For autonomous mobility as well as localization, the robot has several cameras and a precise laser scanner. Furthermore, the standard equipment for monitoring industrial plants includes a zoom camera with a spotlight, a thermal imaging camera, a lidar scanner and a microphone. Additional inspection sensors and specific payloads can be installed and mounted as required.

What was the main challenge for the project?

The ANYmal system has a complex structure due to its diversity with more than 400 individual components as well as many software elements. However, especially at the start of production, there was a tense situation in the procurement markets, which is why a focus of supplier selection was on reliable, qualified suppliers to secure the supply chains.

Core competencies were clearly differentiated beforehand. Thus, Zollner's focus is on manufacturing, while ANYbotics strategically focuses on the development and marketing of the robot. Therefore, an uncomplicated transfer of knowledge within the framework of close cooperation on an even level is indispensable for a successful partnership. The adaptation of the technology based on findings from worldwide operations and changes in the supply chain was also an exciting and flexible task for the further course of the project.

Scalability of production is a key requirement. In order to be able to continuously increase the number of units, solutions had to be found to increase the efficiency of the production process.

What solutions did Zollner find?

In order to cover the material requirements of the ANYmal with its many individual components, Zollner uses its large network of suppliers. Zollner Elektronik AG has a globally operating purchasing organization with proven suppliers and partners and can therefore guarantee material availability even in times of crisis or during tense market situations.

Thanks to the close cooperation with the possibility of personal exchange on-site as well as short feedback loops, challenges were quickly overcome. In addition to the local proximity of the Swiss Zollner site to ANYbotics, the close proximity to the customer in particular also contributes to this trusting cooperation. The know-how of both companies was combined, and the implicit knowledge from ANYbotics research and development was transferred to Zollner production. Due to the lively exchange and short communication channels with ANYbotics as well as with Zollner's technical experts across all departments, both the greatest possible flexibility in serial production and adaptations of the technology were made possible quickly, efficiently and without problems.

The optimization and special adaptation of production processes, for example through the redesign of flat modules for process-safe machine assembly, as well as efficient processes using special production islands, ensure short throughput times and the necessary flexibility for further scalability.

This is what our customer says about the cooperation:



Foto: ANYbotics AG

„Zollner Elektronik AG offers us a strong combination of essential competencies such as the production of flat modules, the assembly of a complex product with many individual parts, and global supply chain management. In the current phase of production ramp-up with short optimization cycles, local proximity is of utmost importance. But we also work with Zollner because it is a global player that can help us scale up through the next levels of production volume.“

Martin Bühlmann, ANYbotics Chief Operating Officer

