

Robo-Technology GmbH



Automation Technology

Germany

www.robotechnology.de



ANSYS Mechanical™

Overview

Robo-Technology plans, develops, designs, manufactures and carries out the programming of automatic robotic systems. They have many years of experience in the integration of complex robotics, ranging in scope from nanometers up to several meters. Their customers are operating in the automotive, aviation, metrology, pharmaceutical, packaging, and semi-conductor industries, and have a high level of confidence in this innovative, medium-sized company.

Testimonial

"Our customers demand the solution of increasingly complex tasks for industrial robots. Cycle times should be as short as possible and still guarantee the highest precision and reliability.

Hence, the consistent use of smoothly communicating 3-D-CAE-tools is a vital part of our development process, enabling us to achieve these ambitious goals.

By using ANSYS Workbench™, we can offer our clients perfect, highly optimized systems at a reasonable cost."


Bernhard THALER
FEA simulation manager, Robo-Technology



Challenge

To develop an ultrasonic testing system with two synchronized 6-axis robots for helicopter parts with a length of up to 6 m.

Fast testing movements combined with high dynamic precision and synchronization demand the highest construction standards.

Solution

The development was carried out in a consistent 3-D environment. In the very first phases of product development, the ability to analyze the design as work progresses, using ANSYS Workbench enabled us to guarantee that the rigidity and vibration behavior of the system would meet the customer's demands. The risk for the involved project partners has been substantially reduced.

Benefits

Quick verification of the efficiency of new construction elements.

Shorter development and design times combined with a considerable increase in quality.

An innovative testing system with the following characteristics:

- Fully automatic testing of complex skin components
- High quality of results
- Short processing times