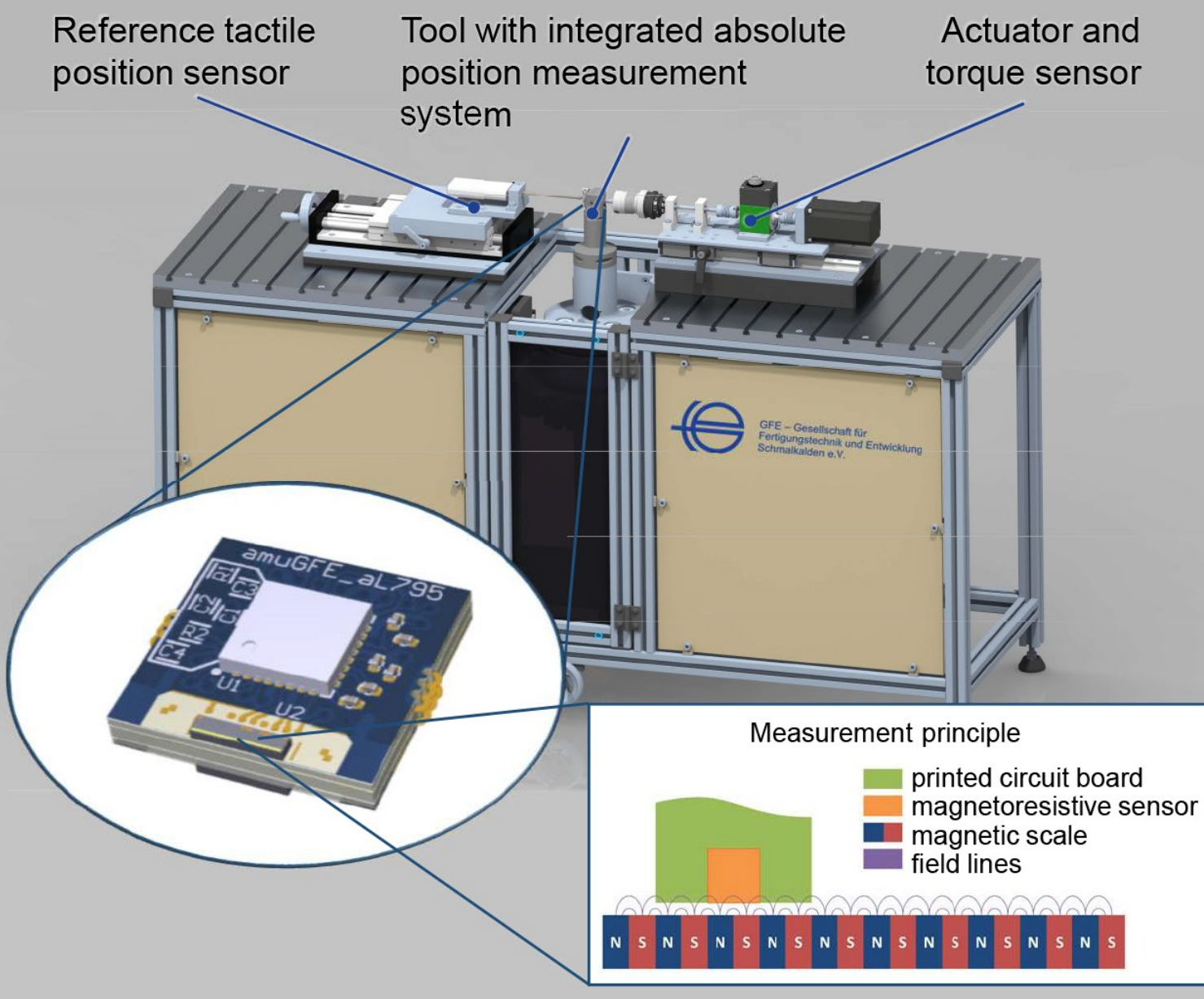
Magnetoresistive Measurement System for Position Detection in Precise & Dynamic Applications



Measurement System using absolute position sensor for referencing of small, relative position sensors which are integratable for small space, low-cost applications.

Potential Applications:

Any solution requiring small, fast, robust, precise, energy & cost effective position measurement. Especially in Machining, Tool Production, Automotive, Optical and Medical Industries.

Measurement Principle / System Solution

- High-Precision Absolute Measurement System
  - 2 Scales - 2 Sensors
  - Vernier Principle
- High-Dynamic Measurement System
  - Variable Scale Length
  - Flexible PCB

Technical Specifications

- Measurement range up to 150 mm absolute or depending on the scale
- Measurement frequency up to 3 kHz (application-dependent)
- Measurement accuracy below 1 µm (application-dependent)
- Interfaces: ABR, UART, SPI, I²C

-Your trusted Partner in Precision Engineering and Innovation

GFE Schmalkalden is an innovative, industry-oriented research institute that offers one-stop tool-related solutions. In addition to research and development projects in the fields of tool technology, machining technologies, coating and measuring technology, we also provide services such as test stand construction, quality and environmental management consulting, tool and component testing and prototype/small series production.

Our mission is to transfer new scientific insights from theory and practice into industrial applications, enhancing competitiveness through increased effectiveness and performance. To achieve this, we conduct our own preliminary research, engage in application-oriented development projects, and support the industrial implementation tailored to companies' needs.

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