Sächsisches Textilforschungsinstitut e.V.

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Sensitex – Sensitive textile surfaces for use as functional skin

Problem / Motivation

- Application of smart wearables in work and protective clothing to avoid serious and fatal accidents at work
- Increasing the user-friendliness and service life of function-integrated textiles by improving contacting
- The goal is the development of a knitted, wash-resistant, conductive, sensitive surface as a platform for the universal integration of both textile-integrated and textile-based electronic elements for the efficient production of highly elastic smart clothes

Solution

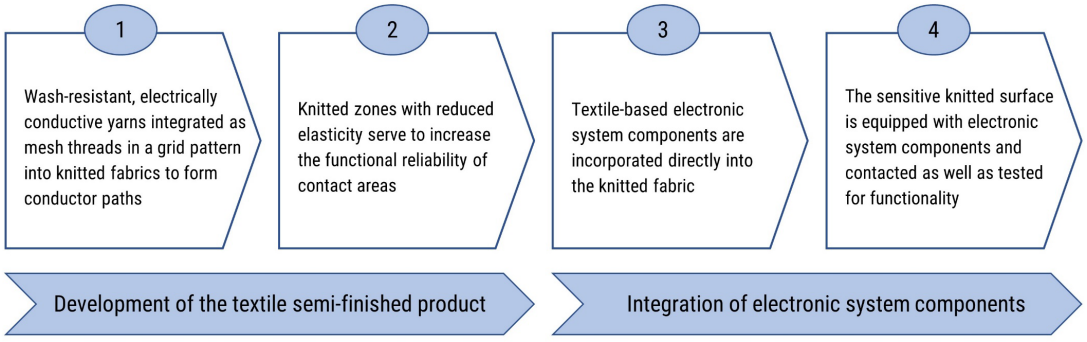
- Reducing the stretchability of certain knitting areas to ensure the functional safety of the electronic elements incorporated therein and their contacting
- Development of knitting structures with actuator properties, which can send signals (light pulses, heat, stimulating current, etc.) to the user based on acquired characteristics
- Improved maintainability due to increased corrosion resistance

Project Launch

07/2024

Project Partner

Hof University of Applied Sciences



Chronology of the working hypotheses in the Sensitex project

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