

FOHOS – Mouldable wooden surfaces with integrated, selectively visible, non-contact control elements

Problem / Motivation

- Functional integration is becoming increasingly important in furniture and interior design
- Increasing trend towards individualisation in all areas of life
- Increased need for surface hygiene (e.g. due to risk of contagion)
- The aim of the project is the development of high-quality, 3D-mouldable real wood surfaces with integrated (contactless) control elements



Solution

- Embroidery application of LEDs (actuators) and textile capacitive proximity sensors on natural fibre-based nonwovens for the production of so-called Smart Technical Textiles
- Production of textile-wood composite components from the Smart Technical Textile, a wood veneer as a surface and a carrier board (furniture body)
- Moulding the textile-wood composite component into a 3D component
- Integration of the composite component into a piece of furniture for a production sample

Project Launch

08/2022

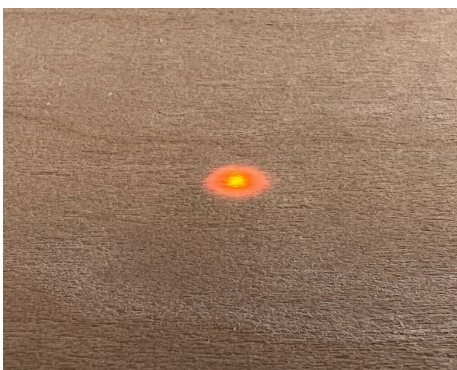
Project Partner

C.H. Müller GmbH,

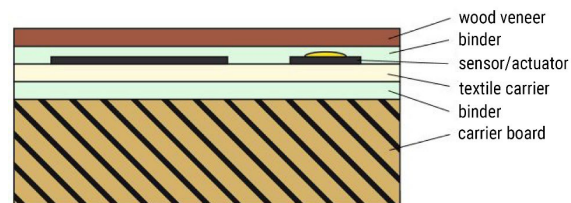
Crottendorfer Tischlerhandwerk GmbH,

W. Reuter & Sohn Spitzen und Stickereien GmbH,

Berufsakademie Sachsen



Functional proof of the integrated LED



Schematic view: textile-wood composite



With support from



by decision of the German Bundestag

Acknowledgement

We would like to thank the Federal Ministry of Food and Agriculture for funding the research project FOHOS (Reg. No. 2220HV076D) within the funding programme "Nachwachsende Rohstoffe".