Abbreviated title
VarioFoot

Lightweight Structures Engineering GmbH

Title:
Development of a prosthetic foot with integrated sensory feedback for the user

Brief description:

The overall objective of the project is to develop an innovative prosthetic foot for exoprostheses that stands out from previous high-end solutions due to the following features:

- Modularity for more needs-based individualization
- Integrated sensors for ground detection (proprioception)
- Energetically optimized kinematic chain

Motivation:
The main motivation is to restore both functions and quality of life of amputees following the loss of a lower limb.

Objectives:
Compared to established prosthetic foot systems, the VarioFoot system should offer the prosthesis user the following significant advantages:

- Restored proprioception
- Reduced risk of tripping and falling
- Increased sense of safety
- Reduced energy requirement and strain

Term:
January 01,2023 to December 31, 2025

Funding and project management organization:
VDI; BMBF

Partners:
Orthopädietechnik Scharpenberg,
TU Dresden, Institut für Mechatronischen Maschinenbau
BITSz electronics GmbH
Medizinische Hochschule Hannover
H+E Produktentwicklung GmbH

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VDI Technologiezentrum

Bundesministerium für Bildung und Forschung