

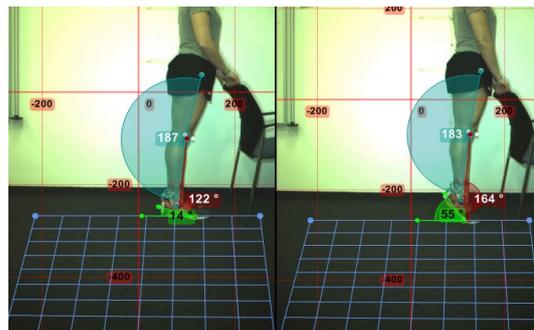
Sensor based rehabilitation shoe

As part of the AiF research project "Sensor-based rehabilitation shoe - development of a shoe for the integration of measuring systems as an assistive device for ambulatory rehabilitation", ISC and PFI have developed a measuring system for gait analysis and training control,, which is fully integrated into a specially designed shoe. The project was successfully completed on August 31, 2019.



Possible fields of application is the use as assistive devices in the ambulatory rehabilitation of diseases that affect the human gait and cause changes in the gait pattern. This enables an objective assessment of the execution of movements and the entire rehabilitation procedure.

Shoe manufacturers and manufacturers of electronic medical devices could offer a product that would help a large and ever-growing target group to regain their health and mobility, possibly faster than with conventional treatment. The new approach would allow a higher degree of persistence and more independency. The areas of application of a further developed system could include a variety of location-independent measurements, monitoring of therapy progress or early detection of disease. The project results can serve to enhance existing algorithms, which can be used, for example, for the diagnosis of diabetic foot syndrome. Although the sensor-based rehabilitation shoe is designed as an assistive device for ambulatory rehabilitation, further areas of application are conceivable, e.g. in sports. Furthermore, the shoe can be modified for different subsets of the target group. Consequently, there are many possibilities for interested SMEs to establish and offer a whole product class with different product ranges.



The project "Sensor-based rehab shoe" is funded by the AiF with the number 19132 N. It started on the 1st of September 2016 and ended on 31st of August 2019.

The complete final report can be requested free of charge at marketing@pfi-germany.de.

If you have any further queries or require further information, please contact us:

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