

Possibilities of using the Rollz Motion Smart for gait analysis in rehabilitation of stroke patients

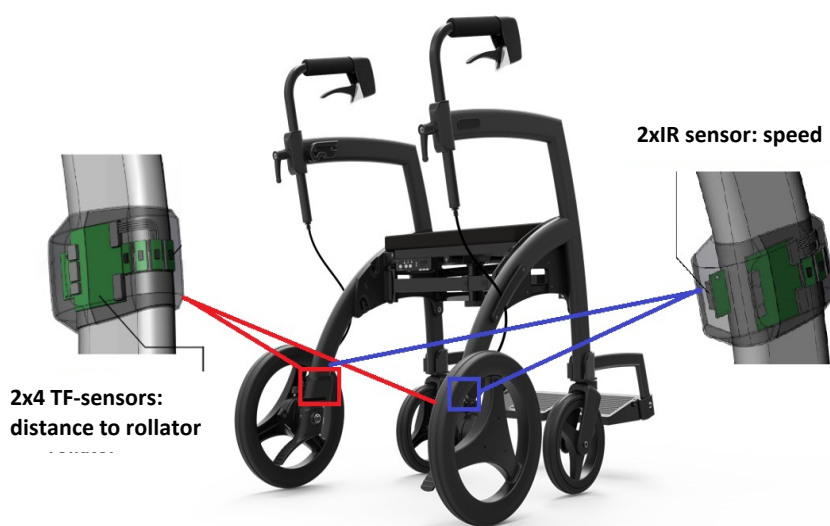
M.A.M. Berger, PhD^{1,2}, M. van Dilgt, MSc²; N.J. van Haastrecht¹, M. Schaaper³, R.M.A. van der Slikke²

¹Basalt, The Hague, The Netherlands; ²The Hague University of Applied Sciences, The Hague, The Netherlands; ³In Market, The Netherlands

Topic

The Rollz Motion Smart rollator *detects* posture, gait and activity of a user and provides *feedback*.

- Various programs to **train** the user and optimize walking performance.
- **Measuring** gait parameters like velocity, step time, step length, distance between person and rollator.
- Visual, tactile and auditory **cues** help the user to take the first step or maintain a suitable walking rhythm.



Relevance

Feedback on gait patterns can be given directly and indirectly. This feedback can help in implementing and evaluating treatments to improve gait. It can also stimulate people to walk.

Current Status

The Rollz Motion Smart rollator can monitor velocity, stride length and time in a reliable and valid way. An app is being developed to give users feedback on outcome parameters as total distance walked, number of steps, duration of walking and speed. Different cues, especially for Parkinson patients, can be given during walking.

App

The Rollz app connects to any sensor on the Rollz.

The app makes it possible to:

- get insights
- set personal goals
- provide feedback
- share results
- give rewards.

