Supplementary material to article by M. van Bloemendaal et al. "Concurrent validity and reliability of a lowcost gait analysis system for assessment of spatiotemporal gait parameters"

Appendix S1. Overview of spatiotemporal gait analysis system (SGAS) requirements and costs

Software

The SGAS software, consisting of 3 parts (i.e. camera calibration, video recording, and position and time assessment software), and Excel data forms for data collection and calculation of the spatiotemporal gait parameters are available open source at: https://github.com/ MvanBloemendaal/SGAS.

Hardware

The hardware used in the study, containing a camera (high-definition 2.2-megapixel camera with 50× optical zoom [f/1.8–4.2, 16:9], sampling at 50 Hz), 10-m long HDMI cable (length depends on stationary or moving setup), and HDMI frame grabber, cost approximately \leq 1,700. Furthermore, a Windows computer with an input for the HDMI frame grabber (or with an integrated HDMI frame grabber) is required.

Materials

A planar 6×10 chequerboard with a pattern of 9-cm squares (Fig. 2 in the main text shows the chequerboard used in the study). This can be made of flat material such as wood or plastic (it should not be too heavy).

Stationary setup

A tripod for stationary setup is available, from €15.

Stationary and moving setup

A 7-m long dolly track (the length used in the study) and camera dolly are available, from approximately €700. A comparable version with the one used in the study, is available for approximately €2,500–3,000.

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