to the reference value again, the data relating to the acceleration, the spatial coordinates and the verification are measured, captured and/or transmitted.

Acceleration data are measured using the one or more acceleration sensors 115 and are accordingly forwarded to the microcontroller 111. The use of a plurality of acceleration sensors 115 makes it possible to measure accelerations in different directions. The microcontroller 111 forwards the data received from the at least one acceleration sensor 115, the GPS module and the near-field communication receiver 117 to the communication module 113 which transmits the data to an external evaluation unit 301 (see figure 3). The capacitances measured by the capacitive sensor are likewise forwarded to the evaluation unit 301 via the communication module 113.

The first submodule 101 is surrounded by a silicone sheath. The silicone sheath and the silicone structure on the first front side 121 can be produced using injection-molding technology. In this case, the power source 119 and the electronic unit 105 are enclosed by the silicone sheath. In the case of a rectangular base having a longitudinal axis and a transverse axis, the power source 119 and the electronic unit 105 are embedded at a distance beside one another along the longitudinal axis of the rectangle. A mechanically flexible, preferably linear, region 129, for example in the form of a depression in the material, is formed between the electronic unit 105 and the power source 119 transversely with respect to the longitudinal axis of the rectangle. As a result, the first submodule 101 is mechanically flexible along the transverse axis of the rectangle, which runs between the arranged power source 119 and the circuit board 109, and can adapt to the movements of the wearer while being worn by the latter. The mechanically flexible region 129 is formed on the first front side 121 in the present exemplary embodiment. The mechanically flexible region 129 may likewise be formed on the first rear side 123 or both on the first front side 121 and on the first rear side 123 in a manner opposite one another.

The near-field communication receiver 117 is suitable for receiving the transmitted data from a near-field communication transmitter 211 which is arranged on the second submodule 201 (see fig. 2A). The near-field communication receiver 117 and the near-field communication transmitter 211 communicate on the basis of the near-field communication standard (NFC standard) RFID which means Radio Frequency Identification. Data interchange in near-field communication is carried out using electromagnetic induction and is therefore possible only at short ranges of a few centimeters to approximately 10 cm.

been rotated through 180° with respect to one another. In this case, although the first submodule 101 and the second submodule 201 would be connected via the mechanically reversible connection, the near-field communication transmitter 211 would not be arranged in the immediate vicinity of the near-field communication receiver 117, with the result that no near-field communication can take place. Furthermore, the data transmitted by the near-field communication transmitter 211 may contain an identification signal in order to ensure that the second submodule 201 is an original submodule and is not a replica.

Additionally or alternatively, it is also possible to couple the determination of the capacitance reference value to successful pairing. As soon as pairing has been carried out by the near-field communication transmitter 211 and the near-field communication receiver 117, a first capacitance measurement by the capacitive sensor is initiated and can be used as the capacitance reference value.

Figure 2B shows a second rear side 207 of the second submodule 201 which faces away from the second front side 203. The second rear side 207 comprises an adhesive layer 209 which remains adhering to the human skin and is used to fasten the second submodule 201 to the wearer's body. The adhesive layer 209 may extend over a region of the second rear side 207 or over the entire second rear side 207. The adhesive layer may be in the form of a biocompatible stretchy plaster adhesive strip.

Figure 3 shows the sensor module 10 according to the invention, for example attached at two different positions on the back of a person. However, it is also possible to attach the sensor module 10 at other points of the back or to the chest or in the abdominal region. The sensor module 10 is preferably arranged along the spinal column or at right angles to the latter, starting from one of the longitudinal axes of a rectangular base. This has the advantage that flexible apparatus components, that is to say the flexible conductor connection 107 and the flexible linear region 129 of the silicone sheath, can at least partially follow the wearer's movements.

A separately arranged evaluation unit 301 is also shown and can receive and evaluate data from the communication module 113 of the electronic unit 105. The data transmitted to the evaluation unit 301 via the communication module 113 are evaluated, on the basis of data from the acceleration sensors 115, the near-field communication transmitter 211 and the capacitive sensor, with respect to stretcher detection, fall detection, position detection and decubitus detection. Localization and activity analysis are also possible using data from the GPS module 125 which are likewise transmitted to the evaluation unit 301 via the communication module 113. The data are evaluated on a computer and/or a mobile device,