Patent Claims

1. A sensor module (10) comprising
   - a first submodule (101) comprising
      a) an electronic unit (105) for capturing and transmitting movement data, and
      b) a first structure (103), and
   - a second submodule (201) comprising
      c) a fastening means for fastening the second submodule (201) to a wearer, and
      d) a second structure (205),

   characterized in that
   - the first structure (103) can form a reversible mechanical connection with the second structure (205), with the result that the first submodule (101) and the second submodule (201) can be reversibly connected to one another~~.~~,

   - ~~2. The sensor module (10) as claimed in claim 1,~~ wherein the first structure (103) comprises one from the group of hook structure or loop structure and the second structure (205) comprises the other from the group of hook structure or loop structure, which structures form ~~a~~ the reversible mechanical connection when the first structure (103) is pressed together with the second structure (205), and
   - wherein the fastening means comprises an adhesive layer (209), in particular an adhesive layer (209) which can adhere to the human skin.

2~~3~~. The sensor module (10) as claimed in ~~either of claims 1 and 2~~ claim 1, wherein the reversible mechanical connection comprises a reversible form fit, in particular a hook-and-loop fastening.

~~4. The sensor module (10) as claimed in one of claims 1 to 3, wherein the fastening means comprises an adhesive layer (209), in particular an adhesive layer (209) which can adhere to the human skin.~~

3~~5~~. The sensor module (10) as claimed in ~~one of claims 1 to 4~~ claim 1 or 2, wherein the second submodule (201) is in the form of a stretchy adhesive strip.

4~~6~~. The sensor module (10) as claimed in ~~one of claims 1 to 3~~ claim 1 or 2, wherein the second submodule (201) is in the form of an abdominal bandage.

5~~7~~. The sensor module (10) as claimed in any one of claims 1 to ~~6~~ 4, wherein the electronic unit (105) comprises at least one acceleration sensor (115) for measuring acceleration data and/or a GPS module (125) for capturing and transmitting spatial coordinates of the first submodule (101) or of the sensor module (10).

6~~8~~. The sensor module (10) as claimed in any one of claims 1 to ~~7~~ 5, wherein

- the second submodule (201) comprises a near-field communication transmitter (211) for transmitting data, and
- the first submodule (101) comprises a near-field communication receiver (117) for receiving the data, wherein
- the data are used to verify
    a) the functionality of the pairing of the first submodule (101) with the second submodule (201), and/or
    b) the correct attachment of the first submodule (101), and/or
    c) the use of a proprietary second submodule (201).

7~~9~~. The sensor module (10) as claimed in any one of claims 1 to ~~8~~ 6, wherein the first submodule (101) comprises a capacitive sensor (127) for measuring capacitance values between a capacitor electrode belonging to the capacitive sensor (127) and the wearer's skin surface.

8~~10~~. The sensor module (10) as claimed in any one of claims 1 to ~~9~~ 7, wherein the electronic unit (105) comprises a comparison unit which is designed to compare a capacitance reference value with a present capacitance value and to prompt data to be measured, captured and/or transmitted only when the present capacitance value is greater than or equal to ~~or less than or equal to~~ the reference value.

9. The sensor module (10) as claimed in any one of claims 1 to 7, wherein the electronic unit (105) comprises a comparison unit which is designed to compare a capacitance reference value with a present capacitance value and to prompt data to be measured, captured and/or transmitted only when the present capacitance value is less than or equal to the reference value.

10~~11~~. The sensor module (10) as claimed in any one of claims 1 to ~~9~~ 7, wherein the electronic unit (105) comprises a comparison unit which is designed to compare a capacitance reference value with a present capacitance value and to prompt the data relating to the acceleration, the spatial coordinates and the verification to be measured, captured and/or

transmitted only when the present capacitance value is less than or equal to the reference value.

11~~12~~. The sensor module (10) as claimed in any one of claims 1 to ~~9~~ 7, wherein the electronic unit (105) comprises a comparison unit which is designed to compare a capacitance reference value with a present capacitance value and to prompt the data relating to the acceleration, the spatial coordinates and the verification to be measured, captured and/or transmitted only when the present capacitance value is greater than or equal to the reference value.

12~~13~~. The sensor module (10) as claimed in any one of claims 1 to ~~12~~ 11, wherein the electronic unit (105) comprises a communication module (113) which is used to transmit the captured data to an evaluation unit outside the sensor module (10).

13~~14~~. The sensor module (10) as claimed in any one of claims 1 to ~~13~~ 12, wherein the first submodule (101) comprises a flexible conductor connection (107) which connects the electronic unit (105) to a power source (119) which supplies the electronic unit (105) with energy.

14~~15~~. The sensor module (10) as claimed in any one of claims 1 to ~~14~~ 13, wherein the first submodule (101) comprises a sheath made of a flexible material which preferably encloses the power source (119) and the electronic unit (105) by means of a molding method, with the result that the power source (119) and the electronic unit (105) form a non-releasable form fit with the sheath.

15~~16~~. The sensor module (10) as claimed in claim ~~15~~ 14, wherein the sheath comprises at least one flexible, preferably linear, region (129) which forms a bending axis, about which the first submodule (101) can be bent, wherein the flexible region runs transversely with respect to the flexible conductor connection (107), with the result that the flexible conductor connection (107) is preferably likewise bent when bending the first submodule (101) around the linear region.

16~~17~~. A care set comprising

- a sensor module (10) as claimed in any one of claims 1 to ~~16~~ 15, and
  a) an electronic evaluation unit (301) which is arranged separately from the sensor module (10) and has software which is used to receive, evaluate and display the measured data, or

b) a computer program product which, when installed and executed on ~~an~~ the electronic evaluation unit, forms software which is used to receive, evaluate and display the measured data.

17~~18~~. ~~The use~~ Use of a second submodule (201) for connection to a first submodule (101) in a sensor module (10), wherein the first submodule (101) can capture and transmit movement data by means of an electronic unit (105) and comprises a first structure (103),

- wherein the second submodule (201)
  a) comprises a fastening means for fastening to a wearer, and
  b) comprises a second structure (205) which forms a reversible mechanical connection with the first structure (103) when being pressed together, with the result that the first submodule (101) and the second submodule (201) are reversibly connected to one another.

18~~19~~. The use of the second submodule (201) as claimed in claim ~~18~~ 17 which comprises a near-field communication transmitter (211) which is suitable for transmitting data to a near-field communication receiver (117), wherein the data are used to verify

a) the functionality of the pairing of the first submodule (101) with the second submodule (201), and/or
b) the correct attachment of the first submodule (101), and/or
c) the use of a proprietary second submodule (201).