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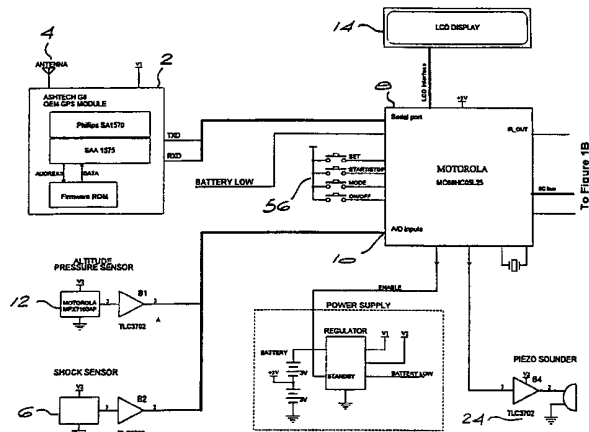
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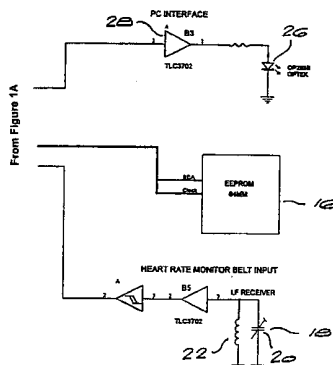
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(54) Title: APPARATUS FOR DETERMINING THE SPEED OF TRAVEL AND DISTANCE TRAVELLED BY A USER



(57) Abstract: Apparatus for determining the speed of travel and the distance travelled by a user comprises a GPS receiver (2) for calculating the position and speed of movement of the user and a sensor (6) which detects movement of the user and generates a movement signal. A processor receives a position/speed signal from the receiver (2) and uses it to calculate the distance travelled by the user from a given position, and uses the movement signal to verify that the calculated distance travelled and the measured speed of movement of the user correspond to actual movement of the user. In a second embodiment, first (32) and second (34) transponders are provided for attachment to the user's limbs, typically the user's ankles, and transmit signals to one another. The transponders (32, 34) transmit an accurately timed sequence of signals to one another, and variations in the time of flight of the signals are processed to determine the speed of movement and distance travelled by the user.



WO 00/68642 A3



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INTERNATIONAL SEARCH REPORT

International Application No PCT/IB 00/00583
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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G01C23/00 G01C22/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01C A43B A61B A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 583 776 A (LEVI ROBERT W ET AL) 10 December 1996 (1996-12-10)	1,2,4,6
Y	column 1, line 59 -column 2, line 14; figures 1-9	3,5
A	column 5, line 1 -column 9, line 53; claims 1,5 column 3, line 13 -column 4, line 26	10
Y	EP 0 816 986 A (HITACHI LTD) 7 January 1998 (1998-01-07)	3,5
A	page 6, line 31 -page 6, line 54; figures 1-49 page 20, line 56 -page 21, line 21 page 18, line 26 -page 18, line 53 page 17, line 26 -page 17, line 31 page 12, line 13 -page 12, line 49 page 9, line 6 -page 9, line 13	10
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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 363 297 A (LARSON NOBLE G ET AL) 8 November 1994 (1994-11-08) column 3, line 1 -column 3, line 15; figures 1-4 column 6, line 16 -column 7, line 29 ---	1,10
A	US 5 579 013 A (HERSHEY JOHN E ET AL) 26 November 1996 (1996-11-26) column 3, line 36 -column 8, line 8; figures 1-6B -----	1,10

INTERNATIONAL SEARCH REPORT

information on patent family members

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