



- (51) International Patent Classification:  
A63B 71/00 (2006.01)
- (21) International Application Number:  
PCT/US2013/046082
- (22) International Filing Date:  
17 June 2013 (17.06.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
13/527,401 19 June 2012 (19.06.2012) US
- (71) Applicant (for all designated States except US): **EZ AS A DRINK PRODUCTIONS, INC.** [US/US]; 1503 Grant Road, Suite 150, Mountain View, CA 94040 (US).
- (72) Inventors; and
- (71) Applicants (for US only): **YANEV, Kostadin, Dimitrov** [BG/US]; 239 Michelle Lane, Alamo, CA 94507 (US). **VASSILEV, Angel, Georgiev** [BG/BG]; 6 D-r Luben Ru-sev Str., Appt. 5, 1113 Sofia (BG). **YANEV, Ivo, Kostadinov** [BG/BG]; 1 Tzar Samuil Str., Appt. 17, 1463 Sofia (BG).

- (74) Agents: **SCHICK, Ian, C.** et al.; PILLSBURY WINTHROP SHAW PITTMAN LLP, P.O. Box 10500, McLean, VA 22102 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: PERSONAL WELLNESS MANAGEMENT PLATFORM

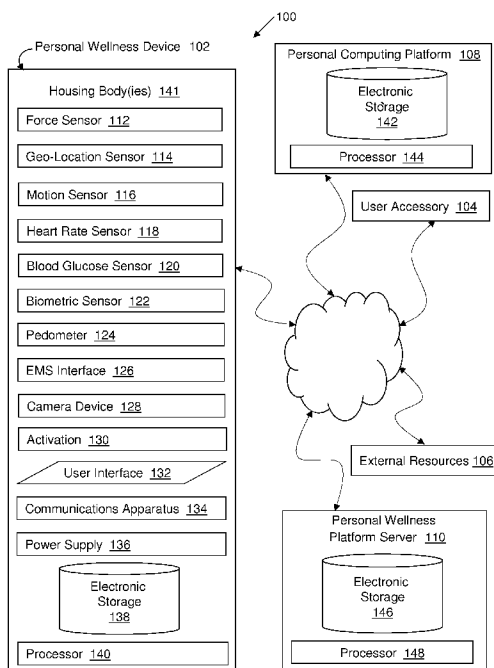


FIG. 1

(57) Abstract: A personal wellness system may facilitate personal wellness management via personal wellness devices. The personal wellness devices may be portable, handheld devices configured to facilitate personal exercise and personal wellness management using the device. Exercises performed using the personal wellness devices may be tracked based on forces exerted on the personal wellness device, a location and/or motion of the personal wellness device, and/or other bases for tracking personal exercise. Tracked exercises may be a basis for determining exercise parameters such as information associated with cardiovascular endurance, respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a quantified improvement in an exercise; and/or other exercise parameters. The personal wellness system may facilitate automated and/or live coaching, exercise regimen design, exercise scheduling, diet program design, rehabilitation, and/or other functions associated with personal wellness management.





**Declarations under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

**Published:**

— *with international search report (Art. 21(3))*

## **PERSONAL WELLNESS MANAGEMENT PLATFORM**

### ***CROSS-REFERENCE TO RELATED APPLICATIONS***

(01) This application claims the benefit of U.S. Patent Application Serial No. 13/527,401, filed June 19, 2012, which is hereby incorporated by reference in its entirety.

### ***FIELD OF THE INVENTION***

(02) The invention relates to facilitating personal wellness management via personal wellness devices and promoting personal wellness by determining and/or evaluating aspects of personal health and/or exercise.

### ***BACKGROUND OF THE INVENTION***

(03) Apparatus used during personal exercise are typically considered either stationary or portable. Stationary apparatus may be configured to quantify various aspects of an exercise routine, such as number of repetitions, calories burnt, etc. Portable apparatus generally include much less functionality relative to larger, stationary apparatus. Neither stationary nor portable exercise apparatus typically include personal wellness management capabilities.

### ***SUMMARY***

(04) One aspect of the invention relates to a personal wellness system configured to facilitate personal wellness management via personal wellness devices, in accordance with one or more implementations. The personal wellness system may include one or more personal wellness devices. Individual ones of the personal wellness devices may be a portable, handheld device configured to facilitate personal exercise and personal wellness management using the device. According to some implementations, information may be transferred between at least one personal wellness device and other components of the personal wellness system. Exercises performed using a personal wellness device may be tracked, which may include monitoring and/or recording personal exercises. Exercises may be tracked based on forces exerted on a personal wellness device, a location of a personal wellness device, motion of a personal wellness device, and/or other bases for tracking personal exercise. Exercise parameters may be determined based on tracked exercises. Such exercise parameters may include information associated with cardiovascular endurance,

respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a frequency of a particular exercise and/or exercise in general; a quantified improvement in an exercise; and/or other exercise parameters. In some implementations, the personal wellness system may facilitate automated and/or live coaching, exercise regimen design, exercise scheduling, diet program design, rehabilitation, designing and/or scheduling wellness programs integrating two or more of the aforementioned, and/or other functions associated with personal wellness management.

(05) In addition to the personal wellness devices, the personal wellness system may include one or more of a user accessory, external resources, a personal computing platform, a personal wellness platform server, and/or other components, which may complement and/or include one or more functionalities attributed herein to the personal wellness devices. Components of the personal wellness system, such as the personal wellness devices, the personal computing platform, the personal wellness platform server, the user accessory, and/or the external resources, may be operatively linked via one or more electronic communication links.

(06) A given personal wellness device may include one or more of a force sensor, a geo-location sensor, a motion sensor, a heart rate sensor, a blood glucose sensor, a biometric sensor, a pedometer, an electrical muscle stimulation (EMS) interface, a camera device, an actuator, a user interface, the communications apparatus, a power supply, the electronic storage, a processor, and/or other components. One or more components of the personal wellness device may be housed by one or more housing bodies. In implementations having two housing bodies, a first housing body and a second housing body may be movably coupled together by way of a coupling mechanism such that the two housing bodies are reconfigurable between an open configuration and a closed configuration. The two housing bodies may be configured to receive compressive force during personal exercise while in the closed configuration.

(07) The force sensor may be configured to generate a force output signal that conveys information related to compressive force exerted on the personal wellness device. The geo-location sensor may be configured to generate a location output signal conveying information related to a geo-location of the personal wellness device.

The motion sensor may be configured to generate a motion output signal that conveys information related to a motion and/or orientation of the personal wellness device. The heart rate sensor may be configured to generate a heart rate output signal that conveys information related to a heart rate of a user associated with the personal wellness device. The blood glucose sensor may be configured to generate a glucose output signal that conveys information related to a concentration of glucose in the blood of a user associated with the personal wellness device. The biometric sensor may be configured to generate a biometric output signal conveying information related to a biometric feature of a user. The pedometer may be configured to generate a step output signal that conveys information related to steps taken by a user carrying the personal wellness device. The electrical muscle stimulation interface may be configured to removably couple the personal wellness device with an electrode. The electrode may be configured to provide electrical muscle stimulation to a user. The camera device may be configured to capture visual data. The actuator may be configured to provide tactile feedback to a user. The communications apparatus may be configured to receive information and/or transmit information from the personal wellness device. The power supply may be configured to supply electrical power to one or more components of the personal wellness device. The electronic storage may be configured to electronically store information. The processor of the personal wellness device may be configured to execute computer program modules.

(08) The user interface may be configured to receive information from a user and provide information to the user. As such, the user interface may include hardware and/or software to facilitate receiving information from the user and/or providing information to the user. Examples of input devices may include one or more of a touch screen, a touch pad, a keypad, a switch, an analog stick, a button, a dial, a microphone, biometric sensor, and/or other hardware configured to receive information from a user. Examples of output devices may include one or more of a display, touch screen, speakers, and/or other hardware configured to provide information to a user. According to some implementations, the user interface may be accessible by a user with the personal wellness device in an open configuration. With the personal wellness device in a closed configuration, all, some, or none of the user interface may be accessible by a user, in various implementations.

(09) The user accessory may be configured to be physically and/or communicatively coupled with the personal wellness device. The user accessory may be configured extend exercise capabilities of the personal wellness device, provide therapy to a user of the personal wellness device, facilitate monitoring of one or more vital signs of a user of the personal wellness device, and/or extend other functionalities of the personal wellness device.

(10) The personal computing platform may include one or more of electronic storage, at least one processor, and/or other components. The electronic storage may be configured to electronically store information. The processor may be configured to execute computer program modules. The personal computing platform may be configured to communicatively couple with the personal wellness device and/or other components of the personal wellness system. According to some implementations, the computing platform may include one or more of a personal computer, a laptop computer, a tablet computer, a Smart phone, a personal digital assistant (PDA), a gaming console, and/or other personal computing platforms.

(11) The personal wellness platform server may include one or more of electronic storage, at least one processor, and/or other components. The electronic storage may be configured to electronically store information. The processor may be configured to execute computer program modules. The personal wellness platform server may be configured to communicatively couple with the personal wellness device and/or other components of the personal wellness system.

(12) The processor(s) of the personal wellness device, the personal computing platform, and/or the personal wellness platform server may be configured to provide information processing capabilities in the personal wellness system. One or more of these processors may be configured to execute one or more of a device-platform communication module, an exercise tracking module, an exercise analysis module, a physical attribute module, a instruction module, a regimen design module, a exercise scheduling module, a nutrition module, a rehabilitation module, and/or other computer program modules.

(13) The device-platform communication module may be configured to facilitate transfer of information between at least one personal wellness device and other components of the personal wellness system such as, but not limited to, the personal computing platform and/or the personal wellness platform server. According to various

implementations, information transferred between a personal wellness device and other components of the personal wellness system may include one or more exercise parameters based on tracked exercises (discussed further below), assistance with one or more exercises performed using the personal wellness device, an exercise regimen, alerts associated with scheduled exercises, a diet program, a force output signal and/or information derived therefrom, a location output signal and/or information derived therefrom, a motion output signal and/or information derived therefrom, and/or other information associated with the personal wellness system. The personal wellness device may facilitate socializing and/or merchandizing.

(14) The exercise tracking module may be configured to track exercises performed using the personal wellness device. Tracking exercises may include monitoring and/or recording personal exercises. Information associated with personal exercises performed with the personal wellness device may be recorded by electronic storage in the personal wellness system and/or other storage accessible by the personal wellness system.

(15) According to some implementations, the exercise tracking module may be configured to track exercises based on a force output signal generated by the force sensor, a location output signal generated by the geo-location sensor, a motion output signal generated by the motion sensor, and/or other information and/or signals. By way of non-limiting illustrations, the exercise tracking module may monitor and record, based on the force output signal, one or more of a magnitude of a compressive force exerted on the personal wellness device, a duration of a compressive force exerted on the personal wellness device, a force magnitude profile as a function of time, and/or a quantity of compressive forces exerted on the personal wellness device. The exercise tracking module may monitor and record a route, distance, and/or speed traveled during exercise performed by a user of the personal wellness device based on the location output signal. The exercise tracking module may monitor and record a motion and/or orientation of a user's body part (e.g., a user's hand) connected to and/or physically coupled with (e.g., holding, strapped to, or otherwise affixed to) the personal wellness device based on the motion output signal.

(16) In some implementations, the exercise tracking module may be configured to recognize that an exercise is being performed using the personal wellness device

based on information and/or signals received from one or more components of the personal wellness device and/or modules described herein.

(17) In some implementations, the exercise tracking module may be configured to identify a type of exercise being performed using the personal wellness device based on information and/or signals received from one or more components of the personal wellness device and/or modules described herein. Examples of types of exercises may include one or more of flexibility exercises (e.g., stretching, yoga, and/or other flexibility exercises), aerobic exercises (e.g., cycling, swimming, walking, skipping rope, rowing, running, hiking, playing tennis, and/or other aerobic exercises), anaerobic exercises (e.g., isometric training, weight training, functional training, eccentric training, sprinting, and/or other anaerobic exercises), and/or other types of exercises.

(18) The exercise analysis module may be configured to determine one or more exercise parameters based on exercises tracked by the exercise tracking module. According to various implementations, examples of exercise parameters may include information associated with cardiovascular endurance, respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a frequency of a particular exercise and/or exercise in general; a quantified improvement in an exercise; and/or other exercise parameters. In some implementations, one or more exercise parameters may be based on a comparison with tracked exercises of one or more users of other personal wellness devices. For example, the time taken to run a common route may be compared between two or more users. As another example, respective improvements in particular exercises may be compared between two or more users.

(19) Aside from exercise, the exercise analysis module may be configured to analyze other wellness disciplines and/or a condition of a user. Such other wellness disciplines may include nutrition, relaxation, and/or other wellness disciplines. A user condition may be determined based on heart rate and/or other body measures. The exercise analysis module may be configured to provide an integrated analysis involving exercise, user condition, individual wellness disciplines, and/or other information associated with wellness.

(20) The physical attribute module may be configured to receive physical attribute information. Examples of physical attribute information may relate to one or more of

height, weight, age, gender, and/or other physical attributes. According to some implementations, physical attribute information may be received from a user by the personal wellness device via the user interface. In some implementations, the physical attribute module may be configured to automatically receive physical attribute information. For example, the personal wellness device may be used in conjunction with an accessory to function as a scale to automatically provide body weight information to the physical attribute module. The personal computing platform and/or the personal wellness platform server may receive physical attribute information from the personal wellness device via the device-platform communication module.

(21) The instruction module may be configured to provide assistance with one or more exercises performed using the personal wellness device. Examples of assistance may include one or more of instructions, guidance, advice, coaching, and/or other assistance. The assistance may be provided by way of text, illustrations, video, sounds, speech, and/or media presented via the user interface. In some implementations, the instruction module may be configured to assist a user before, during, and/or after a given exercise is performed. The assistance provided by the instruction module may be based on one or more of a live interaction with a human trainer, nutritionist, rehabber, and/or coach; an automated response; and/or other sources of assistance with exercises.

(22) The regimen design module may be configured to facilitate designing an exercise regimen. According to some implementations, an exercise regimen may include a plan designed to give a positive result in personal wellness. The plan may include a schedule of times to exercise, an overall duration of the regimen, particular exercises for the regimen, outcome goals, performance milestones, and/or other information associated with personal exercise. The exercise regimen may be designed manually by a user, automatically via the regimen design module, and/or by a combination of manual and automatic design. The exercise regimen, or portions thereof, may be designed automatically based on one or more of previously tracked exercises, previously determined exercise parameters, physical attributes, feedback provided by the instruction module, nutrition information, and/or other information associated with the personal wellness system.

(23) The exercise scheduling module may be configured to monitor one or more scheduled exercises associated with a user and/or provide alerts associated with the

one or more scheduled exercises. Monitoring scheduled exercises may include identifying scheduled exercises based on an exercise regimen (see, e.g., the regimen design module) and/or a calendar associated with a user. Providing an alert associated with a scheduled exercise may include sounding a tone and/or other audible sound via the personal wellness device, and/or sending the user an email, text message, reminder, voice message, and/or other communication accessible via the personal wellness device, the personal computing platform, and/or the personal wellness platform server. In some implementations, the exercise scheduling module may be configured to adjust an exercise regimen based on non-exercise elements of a calendar associated with a user. For example, if an exercise is scheduled for a given time, but a user schedules an appointment for that time, the exercise scheduling module may reschedule the exercise time to accommodate the appointment. As another example, the exercise scheduling module may be configured to adjust one or more scheduled exercises to conform with a diet program so a desired balance between caloric intake and caloric expenditure is achieved.

(24) The nutrition module may be configured to analyze a user's diet and/or facilitate designing a diet program. A diet program may include a particular selection of food and a schedule for consuming the food selections. A diet program may be designed to achieve and/or maintain a controlled body weight. A diet program may be designed manually by a user, automatically via the nutrition module, and/or by a combination of manual and automatic design. A diet program, or portions thereof, may be designed automatically based on one or more of physical attributes, fitness and/or weight goals, diet milestones, and/or other information associated with the personal wellness system.

(25) The rehabilitation module may be configured to provide electrical muscle stimulation treatment to a user via the electrical muscle stimulation interface. Electrical muscle stimulation treatment may include elicitation of muscle contraction using electric impulses. The impulses may mimic an action potential coming from a user's central nervous system, causing the muscles to contract. The impulses may be passed from the electrical muscle stimulation interface to an electrode operatively coupled with the electrical muscle stimulation interface. The electrode may include pads configured to adhere to a user's skin. The impulses may be delivered through the electrode on the skin in direct proximity to the muscles to be stimulated.

(26) These and other objects, features, and characteristics of the present invention, as well as the methods of operation and functions of the related elements of structure and the combination of parts and economies of manufacture, will become more apparent upon consideration of the following description and the appended claims with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. As used in the specification and in the claims, the singular form of “a”, “an”, and “the” include plural referents unless the context clearly dictates otherwise.

#### ***BRIEF DESCRIPTION OF THE DRAWINGS***

(27) FIG. 1 illustrates a personal wellness system configured to facilitate personal wellness management via personal wellness devices, in accordance with one or more implementations.

(28) FIG. 2 illustrates an exemplary processor included in one or more components of the personal wellness system, in accordance with one or more implementations.

(29) FIG. 3 illustrates a method for facilitating personal wellness management via personal wellness devices, in accordance with one or more implementations.

#### ***DETAILED DESCRIPTION***

(30) FIG. 1 illustrates a personal wellness system 100 configured to facilitate personal wellness management via personal wellness devices, in accordance with one or more implementations. The personal wellness system 100 may include one or more personal wellness devices 102. Individual ones of the personal wellness devices 102 may be a portable, handheld device configured to facilitate personal exercise and personal wellness management using the device. According to some implementations, information may be transferred between at least one personal wellness device 102 and other components of personal wellness system 100. Exercises performed using personal wellness device 102 may be tracked, which may include monitoring and/or recording personal exercises. Exercises may be tracked based on forces exerted on personal wellness device 102, a location of personal wellness device 102, motion of personal wellness device 102, and/or other bases for tracking personal exercise. Exercise parameters may be determined based on tracked exercises. Such exercise parameters may include information associated with cardiovascular endurance,

respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a frequency of a particular exercise and/or exercise in general; a quantified improvement in an exercise; and/or other exercise parameters. In some implementations, personal wellness system 100 may facilitate automated and/or live coaching, exercise regimen design, exercise scheduling, diet program design, rehabilitation, designing and/or scheduling wellness programs integrating two or more of the aforementioned, and/or other functions associated with personal wellness management.

(31) In addition to personal wellness device 102, personal wellness system 100 may include one or more of a user accessory 104, external resources 106, a personal computing platform 108, a personal wellness platform server 110, and/or other components, which may complement and/or include one or more functionalities attributed herein to personal wellness device 102. Components of personal wellness system 100, such as personal wellness device 102, personal computing platform 108, personal wellness platform server 110, user accessory 104, and/or external resources 106, may be operatively linked via one or more electronic communication links. For example, such electronic communication links may be established, at least in part, via a wired or wireless network, which may include the Internet, WiFi, LAN, ANT+, Bluetooth, low-power Bluetooth, and/or other networks. It will be appreciated that this is not intended to be limiting, and that the scope of this disclosure includes implementations in which personal wellness device 102, personal computing platform 108, personal wellness platform server 110, user accessory 104, and/or external resources 106 are operatively linked via some other communication media.

(32) As depicted in FIG. 1, personal wellness device 102 may include one or more of a force sensor 112, a geo-location sensor 114, a motion sensor 116, a heart rate sensor 118, a blood glucose sensor 120, a biometric sensor 122, a pedometer 124, an electrical muscle stimulation (EMS) interface 126, a camera device 128, an actuator 130, a user interface 132, communications apparatus 134, a power supply 136, electronic storage 138, a processor 140, and/or other components, all housed by one or more housing body(ies) 141. According to some implementations, housing body(ies) 141 may comprise two housing bodies including a first housing body and a second housing body. The first housing body and the second housing body may be

movably coupled together by way of a coupling mechanism such that the two housing bodies are reconfigurable between an open configuration and a closed configuration. The two housing bodies may be configured to receive compressive force during personal exercise while in the closed configuration. The user interface 132 may be accessible with the two housing bodies in the open configuration. Exemplary implementations of a personal wellness device having two housing bodies are described in U.S. Patent Application No 13/527,465, filed on June 19, 2012 and entitled "Personal Wellness Device," which is incorporated herein by reference.

(33) The force sensor 112 may be configured to generate a force output signal that conveys information related to compressive force exerted on personal wellness device 102. Such information may include or be used to determine magnitude of force, duration of force, a force magnitude profile as a function of time, a quantity of compressive forces, and/or other information related to compressive force exerted on personal wellness device 102. The force output signal generated by force sensor 112 may be received and/or utilized by one or more modules executable by processor 140, as described further herein. By way of non-limiting example, force sensor 112 may include a FlexiForce A201 force sensor from Tekscan. However, other apparatus configured for force sensing are contemplated and within the scope of the invention.

(34) The geo-location sensor 114 may be configured to generate a location output signal conveying information related to a geo-location of personal wellness device 102. The location output signal may be used to quantify one or more parameters of personal exercise. Such parameters may include speed, distance traveled, course of travel, and/or other parameters related to a geo-location of personal wellness device 102. By way of non-limiting example, geo-location sensor 114 may include a GPS device and/or other device configured to generate signals related to geo-location. However, other apparatus and techniques for location sensing and/or detecting are contemplated and within the scope of the invention.

(35) The motion sensor 116 may be configured to generate a motion output signal that conveys information related to a motion and/or orientation of personal wellness device 102. The motion output signal may be used to quantify motions, changes in motion, orientation, changes in orientation, and/or information derived therefrom. By way of non-limiting example, motion sensor 116 may include an accelerometer configured to generate signals related to motion and/or orientation. However, other

apparatus and techniques for motion and/or orientation sensing and/or detection are contemplated and within the scope of the invention.

(36) The heart rate sensor 118 may be configured to generate a heart rate output signal that conveys information related to a heart rate of a user associated with personal wellness device 102. The heart rate sensor 118 may utilize electrocardiography (ECG or EKG). The heart rate output signal may be used to monitor heart rate in real time or record heart rate data for later observation and/or analysis. In some implementations, heart rate sensor 118 is integrated into personal wellness device 102 such that heart rate sensor 118 may measure a user's heart rate by way of physical contact between the user and personal wellness device 102. The heart rate sensor 118 may communicatively couple with a heart rate monitor that is separate and distinct from personal wellness device 102, according to some implementations. Examples of separate and distinct heart rate monitors may include a chest strap, a finger clip, a garment with an integrated heart rate monitor, and/or other devices configured to probe heart rate.

(37) The blood glucose sensor 120 may be configured to generate a glucose output signal that conveys information related to a concentration of glucose in the blood of a user associated with personal wellness device 102. The glucose output signal may be used to determine a concentration of glucose and/or information derived therefrom. In some implementations, blood glucose sensor 120 may require a blood sample from a user in order to generate the glucose output signal. The blood glucose sensor 120 may be based on one or more non-invasive technologies including near IR detection, ultrasound, dielectric spectroscopy, and/or other non-invasive technologies for determining glucose concentration, in accordance with some implementations.

(38) The biometric sensor 122 may be configured to generate a biometric output signal conveying information related to a biometric feature of a user. The biometric output signal may be used to identify and/or authenticate a user of personal wellness device 102. A biometric feature of a user may include physiological characteristics related to the shape of the body of the user. Examples of physiological characteristics may include particular geometries of a fingerprint, face, palm, hand, iris, retina, and/or other physiological characteristics. A biometric feature of a user may include deoxyribonucleic acid (DNA) associated with the user. The biometric sensor 122 may include an image capture device, a biometric scanner, and/or other device configured

to observe biometric features. In some implementations, biometric sensor 122 is included in user interface 132.

(39) The pedometer 124 may be configured to generate a step output signal that conveys information related to steps taken by a user carrying personal wellness device 102. The step output signal may be used to determine a number of steps taken, a distance traveled, and/or other information related to or derived from steps taken by a user. In some implementations, pedometer 124 may include a separate and distinct device communicatively coupled with personal wellness device 102 and configured to transmit the step output signal to personal wellness device 102.

(40) The electrical muscle stimulation interface 126 may be configured to removably couple personal wellness device 102 with an electrode. The electrode may be configured to provide electrical muscle stimulation to a user. In some implementations, electronic pulses (or other waveforms) may be provided by electrical muscle stimulation interface 126 to the electrode, which in turn may deliver the electrical pulses to a surface area of a user's body causing proximate muscles to exercise passively.

(41) The camera device 128 may be configured to capture visual data. The visual data may include still images, video, and/or other visual data. In some implementations, camera device 128 may be utilized as biometric sensor 122. The camera device 128 may include, by way of non-limiting example, a digital camera, a 2D camera, a 3D camera, and/or other imaging devices.

(42) The actuator 130 may be configured to provide tactile feedback to a user. Tactile feedback may be preferable in some use scenarios, for example, where other feedback mechanisms such as audio or visual may be undesired. Tactile feedback may include forces, vibrations, motions, and/or other tactile feedback provided to the user. The actuator 130 may include a mechanical device configured to cause one or more motions of personal wellness device 102. In some implementations, actuator 130 may include an electric motor with an unbalanced mass on its driveshaft such that rotation of the driveshaft generates vibrations. One or more parameters of the tactile feedback may be varied to convey different information to a user. The parameters may include one or more of direction, source location, duration, frequency, amplitude, and/or other parameters.

(43) The user interface 132 may be configured to receive information from a user and provide information to the user. As such, user interface 132 may include hardware and/or software to facilitate receiving information from the user and/or providing information to the user. Examples of input devices may include one or more of a touch screen, a touch pad, a keypad, a switch, an analog stick, a button, a dial, a microphone, biometric sensor, and/or other hardware configured to receive information from a user. Examples of output devices may include one or more of a display, touch screen, speakers, and/or other hardware configured to provide information to a user.

(44) In some implementations, user interface 132 may be configured to present user configurable settings to the user. The user interface 132 may be configured to receive selections from the user of values for the user configurable settings. One or more user configurable settings may impact the current activity of one or more components of personal wellness device 102. By way of non-limiting example, the user configurable settings may activate and/or deactivate one or more components of personal wellness device 102, and/or may configure one or more aspects of operation of personal wellness device 102. The user configurable settings may be related to personal exercise and/or wellness of a user of personal wellness device 102. The user configurable settings may be provided to processor 140 of personal wellness device 102. The user configurable settings may be provided to one or more processors of user accessory 104, personal computing platform 108, personal wellness platform server 110, and/or other components of personal wellness system 100.

(45) The communications apparatus 134 may be configured to receive information and/or transmit information from personal wellness device 102. As such, communications apparatus 134 may include one or both of a wireless communications interface or a wired communications interface. Examples of a communications interface may include a wired or wireless transmitter, a wired or wireless receiver, and/or a combined wired or wireless transmitter and receiver. The communications apparatus 134 may be configured to communicatively couple personal wellness device 102 with a computing platform (e.g., personal computing platform 108 and/or personal wellness platform server 110) configured to receive and process information related to compressive force exerted on the two housing bodies, a user accessory that is separate and distinct from personal wellness device 102, and/or other components of personal wellness system 100.

(46) The power supply 136 may be configured to supply electrical power to one or more components of personal wellness device 102. By way of non-limiting example, power supply 136 may include one or more of a battery, a capacitor, apparatus for receiving electrical power from an external source (e.g., a wall socket), and/or other power supplies. In some implementations, power supply 136 may be rechargeable. In one implementation, where communications apparatus 134 includes a USB port or other wired communications port, communications apparatus 134 may receive electrical power from a component of personal wellness system 100 and/or another source to recharge power supply 136.

(47) The electronic storage 138 may be configured to electronically store information. Exemplary implementations of electronic storage that is the same or similar to electronic storage 138 are described further herein.

(48) The processor 140 may be configured to execute computer program modules. Exemplary implementations of processors that are the same or similar to processor 140 are described in connection with FIG. 2.

(49) The user accessory 104 may be configured to be physically and/or communicatively coupled with personal wellness device 102. The user accessory 104 may be configured extend exercise capabilities of personal wellness device 102, provide therapy to a user of personal wellness device 102, facilitate monitoring of one or more vital signs of a user of personal wellness device 102, and/or extend other functionalities of personal wellness device 102.

(50) In implementations where user accessory 104 is configured to extend exercise capabilities of personal wellness device 102, user accessory 104 may include a strap (not depicted in FIG. 1) or other apparatus configured for similar functionality attributed herein to the strap. Such a strap may be configured to physically couple to personal wellness device 102 and facilitate exertion of compressive force on personal wellness device 102 responsive to a tensive force exerted on the strap. The strap may be removably coupled to personal wellness device 102 by hooks, snaps, hook and loop fasteners, and/or other means for removable coupling.

(51) In implementations where user accessory 104 is configured to provide therapy to a user of personal wellness device 102, user accessory 104 may include an electrode (not depicted in FIG. 1). In some implementations, electrical muscle stimulation interface 126 may be configured to removably couple personal wellness

device 102 with the electrode. The electrode may be configured to provide electrical muscle stimulation to a user.

(52) In implementations where user accessory 104 is configured to facilitate monitoring of one or more vital signs of a user of personal wellness device 102, user accessory 104 may include one or more accessories configured to facilitate monitoring of one or more of body temperature, heart rate, respiration rate, blood pressure, body sweat, and/or other vital signs. In some implementations, user accessory 104 may include a chest strap, a finger clip, a garment with an integrated heart rate monitor, and/or other devices configured to probe heart rate, which may communicatively couple with heart rate sensor 118. In some implementations, user accessory 104 may include a blood pressure sensor. The blood pressure sensor may be configured to generate a blood pressure output signal that conveys information related to a blood pressure of a user associated with personal wellness device 102.

(53) In implementations where user accessory 104 is configured to extend other functionalities of personal wellness device 102, user accessory 104 may include one or more of a wired headset; a wireless headset; wired headphones; wireless headphones; a device that includes a display; one or more sensors configured to be attached to a user's body and provide a signal conveying information associated with motion, position, and/or other information associated with a user; a device configured to determine user and/or body part motion, size, and/or position (e.g., MS Kinect™); and/or other accessories configured to extend one or more functionalities of personal wellness device 102. A device configured to determine user and/or body part motion, size, and/or position may perform such determination(s) based on optical information, signals received from one or more sensors attached to a user's body, and/or other information associated with user.

(54) The external resources 106 may include sources of information, hosts and/or providers of personal wellness systems, external entities participating with personal wellness system 100, and/or other resources. According to some implementations, external resources 106 may include doctor-specific software, hospital contact management system (CMS), corporate CMS, and/or other resources. In some implementations, some or all of the functionality attributed herein to external resources 106 may be provided by resources included in personal wellness system 100.

(55) The personal computing platform 108 may include one or more of electronic storage 142, at least one processor 144, and/or other components. The electronic storage 142 may be configured to electronically store information. Exemplary implementations of electronic storage that is the same or similar to electronic storage 142 are described further herein. The processor 144 may be configured to execute computer program modules. Exemplary implementations of processors that are the same or similar to processor 144 are described in connection with FIG. 2. The personal computing platform 108 may be configured to communicatively couple with personal wellness device 102 and/or other components of personal wellness system 100. The personal computing platform 108 may be configured to receive, transmit, process, and/or store information related to one or more of personal exercise, compressive force exerted on personal wellness device 102, and/or other information associated with personal wellness system 100. According to some implementations, the computing platform 104 may include one or more of a personal computer, a laptop computer, a tablet computer, a Smart phone, a personal digital assistant (PDA), a gaming console, and/or other personal computing platforms.

(56) The personal wellness platform server 110 may include one or more of electronic storage 146, at least one processor 148, and/or other components. The electronic storage 146 may be configured to electronically store information. Exemplary implementations of electronic storage that is the same or similar to electronic storage 146 are described further herein. The processor 148 may be configured to execute computer program modules. Exemplary implementations of processors that are the same or similar to processor 146 are described in connection with FIG. 2. The personal wellness platform server 110 may be configured to communicatively couple with personal wellness device 102 and/or other components of personal wellness system 100. The personal wellness platform server 110 may be configured to receive, transmit, process, and/or store information related to one or more of personal exercise, compressive force exerted on personal wellness device 102, and/or other information associated with personal wellness system 100. In some implementations, personal wellness platform server 110 may be implemented by a cloud of computing platforms operating together as personal wellness platform server 110.

(57) Electronic storage 138 of personal wellness device 102, electronic storage 142 of personal computing platform 108, and/or electronic storage 146 of personal wellness platform server 110 may comprise electronic storage media that electronically stores information. Such electronic storage media may include one or both of system storage that is provided integrally (i.e., substantially non-removable) with personal wellness device 102, personal computing platform 108, and/or personal wellness platform server 110. Electronic storage media may include removable storage that is removably connectable to personal wellness device 102, personal computing platform 108, and/or personal wellness platform server 110 via, for example, a port (e.g., a USB port, a firewire port, etc.) or a drive (e.g., a disk drive, etc.). Electronic storage 138, electronic storage 142, and/or electronic storage 146 may include one or more of optically readable storage media (e.g., optical disks, etc.), magnetically readable storage media (e.g., magnetic tape, magnetic hard drive, floppy drive, etc.), electrical charge-based storage media (e.g., EEPROM, RAM, etc.), solid-state storage media (e.g., flash drive, etc.), and/or other electronically readable storage media. Electronic storage 138, electronic storage 142, and/or electronic storage 146 may include one or more virtual storage resources (e.g., cloud storage, a virtual private network, and/or other virtual storage resources). Electronic storage 138, electronic storage 142, and/or electronic storage 146 may store software algorithms; information determined by one or more processors (e.g., processor 140, processor 144, and/or processor 148); information received from personal wellness device 102, user accessory 104, external resources 106, personal computing platform 108, and/or personal wellness platform server 110; and/or other information that enables personal wellness system 100 to function as described herein.

(58) FIG. 2 illustrates an exemplary processor 200 included in one or more components of personal wellness system 100, in accordance with one or more implementations. The processor 200 may be the same or similar to processor 140 of personal wellness device 102, processor 144 of personal computing platform 108, and/or processor 148 of personal wellness platform server 110. Processor 200 is configured to provide information processing capabilities in personal wellness system 100. As such, processor 200 may include one or more of a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to process information, a state machine, and/or other mechanisms for

electronically processing information. Although processor 200 is shown in FIG. 2 as a single entity, this is for illustrative purposes only. In some implementations, processor 200 may include a plurality of processing units. These processing units may be physically located within the same device, or processor 200 may represent processing functionality of a plurality of devices operating in coordination.

(59) As depicted in FIG. 2, processor 200 may be configured to execute one or more of a device-platform communication module 202, an exercise tracking module 204, an exercise analysis module 206, a physical attribute module 208, a instruction module 210, a regimen design module 212, a exercise scheduling module 214, a nutrition module 216, a rehabilitation module 218, and/or other computer program modules. Processor 200 may be configured to execute modules 202, 204, 206, 208, 210, 212, 214, 216, 218, and/or other modules by software; hardware; firmware; some combination of software, hardware, and/or firmware; and/or other mechanisms for configuring processing capabilities on processor 200.

(60) It should be appreciated that although modules 202, 204, 206, 208, 210, 212, 214, 216, and 218 are illustrated in FIG. 2 as being co-located within a single processing unit, in implementations in which processor 200 includes multiple processing units, one or more of modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218 may be located remotely from the other modules. For example, one or more of modules 202, 204, 206, 208, 210, 212, 214, 216, 218, and/or other modules may be executed by processor 140 of personal wellness device 102, processor 144 of personal computing platform 108, and/or processor 148 of personal wellness platform server 110. The description of the functionality provided by the different modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218 described below is for illustrative purposes, and is not intended to be limiting, as any of modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218 may provide more or less functionality than is described. For example, one or more of modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218 may be eliminated, and some or all of its functionality may be provided by other ones of modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218. As another example, processor 200 may be configured to execute one or more additional modules that may perform some or all of the functionality attributed below to one of modules 202, 204, 206, 208, 210, 212, 214, 216, and/or 218.

(61) The device-platform communication module 202 may be configured to facilitate transfer of information between at least one personal wellness device 102 and other components of personal wellness system 100 such as, but not limited to, personal computing platform 108 and/or personal wellness platform server 110. According to various implementations, information transferred between personal wellness device 102 and other components of personal wellness system 100 may include one or more exercise parameters based on tracked exercises (discussed further below), assistance with one or more exercises performed using personal wellness device 102, an exercise regimen, alerts associated with scheduled exercises, a diet program, a force output signal and/or information derived therefrom, a location output signal and/or information derived therefrom, a motion output signal and/or information derived therefrom, and/or other information associated with personal wellness system 100. In some implementations, device-platform communication module 202 may be configured to facilitate communication between one or more other devices carried by the user. For example, device-platform communication module 202 may communicate with a pacemaker installed in a user to adjust its settings. The personal wellness device 102 may facilitate socializing and/or merchandizing, according to some implementations, as described in U.S. Patent Application No. 13/527,437, filed on June 19, 2012, and entitled "Merchandizing, Socializing, and/or Gaming Via a Personal Wellness Device and/or a Personal Wellness Platform," which is incorporated herein by reference.

(62) The exercise tracking module 204 may be configured to track exercises performed using personal wellness device 102. Tracking exercises may include monitoring and/or recording personal exercises. Personal exercises may include traditional forms of exercise and/or everyday activities. Everyday activities may include cleaning, watching TV, mowing, and/or other everyday activities. Information associated with personal exercises performed with personal wellness device 102 may be recorded by electronic storage 138, electronic storage 142, electronic storage 146, and/or other storage accessible by personal wellness system 100.

(63) According to some implementations, exercise tracking module 204 may be configured to track exercises based on a force output signal generated by force sensor 112, a location output signal generated by geo-location sensor 114, a motion output signal generated by motion sensor 116, information received from an accessory such as a device configured to optically determine user and/or body part motion and/or

position, and/or other information and/or signals. By way of non-limiting illustrations, exercise tracking module 204 may monitor and record, based on the force output signal, one or more of a magnitude of a compressive force exerted on personal wellness device 102, a duration of a compressive force exerted on personal wellness device 102, a force magnitude profile as a function of time, and/or a quantity of compressive forces exerted on personal wellness device 102. The exercise tracking module 204 may monitor and record a route, distance, and/or speed traveled during exercise performed by a user of personal wellness device 102 based on the location output signal. The exercise tracking module 204 may monitor and record a motion and/or orientation of a user's body part (e.g., a user's hand) connected to and/or physically coupled with (e.g., holding, strapped to, or otherwise affixed to) personal wellness device 102 based on the motion output signal.

(64) In some implementations, exercise tracking module 204 may be configured to recognize that an exercise is being performed using personal wellness device 102 based on information and/or signals received from one or more components of personal wellness device 102 and/or modules described in connection with processor 200.

(65) In some implementations, exercise tracking module 204 may be configured to identify a type of exercise being performed using personal wellness device 102 based on information and/or signals received from one or more components of personal wellness device 102 and/or modules described in connection with processor 200. Examples of types of exercises may include one or more of flexibility exercises (e.g., stretching, yoga, and/or other flexibility exercises), aerobic exercises (e.g., cycling, swimming, walking, skipping rope, rowing, running, hiking, playing tennis, and/or other aerobic exercises), anaerobic exercises (e.g., isometric training, weight training, functional training, eccentric training, sprinting, and/or other anaerobic exercises), and/or other types of exercises.

(66) The exercise analysis module 206 may be configured to determine one or more exercise parameters based on exercises tracked by exercise tracking module 204. According to various implementations, examples of exercise parameters may include information associated with cardiovascular endurance, respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a frequency

of a particular exercise and/or exercise in general; a quantified improvement in an exercise; and/or other exercise parameters. In some implementations, one or more exercise parameters may be based on a comparison with tracked exercises of one or more users of other personal wellness devices. For example, the time taken to run a common route may be compared between two or more users. As another example, respective improvements in particular exercises may be compared between two or more users.

(67) Aside from exercise, exercise analysis module 206 may be configured to analyze other wellness disciplines and/or a condition of a user. Such other wellness disciplines may include nutrition, relaxation, and/or other wellness disciplines. A user condition may be determined based on heart rate and/or other body measures. The exercise analysis module may be configured to provide an integrated analysis involving exercise, user condition, individual wellness disciplines, nutrition, and/or other information associated with wellness.

(68) The physical attribute module 208 may be configured to receive physical attribute information. Examples of physical attribute information may relate to one or more of height, weight, age, gender, and/or other physical attributes. According to some implementations, physical attribute information may be received from a user by personal wellness device 102 via user interface 132. In some implementations, physical attribute module 208 may be configured to automatically receive physical attribute information. For example, personal wellness device 102 may be used in conjunction with an accessory to function as a scale to automatically provide body weight information to physical attribute module 208. The personal computing platform 108 and/or personal wellness platform server 110 may receive physical attribute information from personal wellness device 102 via device-platform communication module 202.

(69) The instruction module 210 may be configured to provide assistance with one or more exercises performed using personal wellness device 102. Examples of assistance may include one or more of instructions, guidance, advice, coaching, and/or other assistance. The assistance may be provided by way of text, illustrations, video, sounds, speech, and/or media presented via user interface 132. In some implementations, instruction module 210 may be configured to assist a user before, during, and/or after a given exercise is performed. The assistance provided by

instruction module 210 may be based on one or more of a live interaction with a human trainer, nutritionist, rehabber, and/or coach; an automated response; and/or other sources of assistance with exercises.

(70) The regimen design module 212 may be configured to facilitate designing an exercise regimen. According to some implementations, an exercise regimen may include a plan designed to give a positive result in personal wellness. The plan may include a schedule of times to exercise, an overall duration of the regimen, particular exercises for the regimen, outcome goals, performance milestones, and/or other information associated with personal exercise. The exercise regimen may be designed manually by a user, automatically via regimen design module 212, and/or by a combination of manual and automatic design. The exercise regimen, or portions thereof, may be designed automatically based on one or more of previously tracked exercises, previously determined exercise parameters, physical attributes, feedback provided by instruction module 210, nutrition information, user-defined restrictions and/or goals, and/or other information associated with personal wellness system 100.

(71) The exercise scheduling module 214 may be configured to monitor one or more scheduled exercises associated with a user and/or provide alerts associated with the one or more scheduled exercises. Monitoring scheduled exercises may include identifying scheduled exercises based on an exercise regimen (see, e.g., regimen design module 212) and/or a calendar associated with a user. Providing an alert associated with a scheduled exercise may include sounding a tone and/or other audible sound via personal wellness device 102, and/or sending the user an email, text message, reminder, voice message, and/or other communication accessible via personal wellness device 102, personal computing platform 108, and/or personal wellness platform server 110. In some implementations, exercise scheduling module 214 may be configured to adjust an exercise regimen based on non-exercise elements of a calendar associated with a user. For example, if an exercise is scheduled for a given time, but a user schedules an appointment for that time, the exercise scheduling module 214 may reschedule the exercise time to accommodate the appointment. As another example, exercise scheduling module 214 may be configured to adjust one or more scheduled exercises to conform with a diet program so a desired balance between caloric intake and caloric expenditure is achieved.

(72) The nutrition module 216 may be configured to analyze a user's diet and/or facilitate designing a diet program. A diet program may include a particular selection of food and a schedule for consuming the food selections. A diet program may be designed to achieve and/or maintain a controlled body weight. A diet program may be designed manually by a user, automatically via nutrition module 216, and/or by a combination of manual and automatic design. A diet program, or portions thereof, may be designed automatically based on one or more of physical attributes, fitness and/or weight goals, diet milestones, and/or other information associated with personal wellness system 100.

(73) The rehabilitation module 218 may be configured to provide electrical muscle stimulation treatment to a user via electrical muscle stimulation interface 126. Electrical muscle stimulation treatment may include elicitation of muscle contraction using electric impulses. The impulses may mimic an action potential coming from a user's central nervous system, causing the muscles to contract. The impulses may be passed from electrical muscle stimulation interface 126 to an electrode operatively coupled with electrical muscle stimulation interface 126. The electrode may include pads configured to adhere to a user's skin. The impulses may be delivered through the electrode on the skin in direct proximity to the muscles to be stimulated.

(74) FIG. 3 illustrates a method 300 for facilitating personal wellness management via personal wellness devices, in accordance with one or more implementations. The operations of method 300 presented below are intended to be illustrative. In some implementations, method 300 may be accomplished with one or more additional operations not described, and/or without one or more of the operations discussed. Additionally, the order in which the operations of method 300 are illustrated in FIG. 3 and described below is not intended to be limiting.

(75) In some implementations, method 300 may be implemented in one or more processing devices (e.g., a digital processor, an analog processor, a digital circuit designed to process information, an analog circuit designed to process information, a state machine, and/or other mechanisms for electronically processing information). The one or more processing devices may include one or more devices executing some or all of the operations of method 300 in response to instructions stored electronically on an electronic storage medium. The one or more processing devices may include

one or more devices configured through hardware, firmware, and/or software to be specifically designed for execution of one or more of the operations of method 300.

(76) At an operation 302, information may be transferred between personal wellness device 102 and other components of personal wellness system 100 such as, but not limited to, personal computing platform 108 and/or personal wellness platform server 110. Operation 302 may be performed by a device-platform communication module that is the same or similar to device-platform communication module 202, in accordance with one or more implementations.

(77) At an operation 304, exercises performed using personal wellness device 102 may be tracked. Operation 304 may be performed by an exercise tracking module that is the same or similar to exercise tracking module 204, in accordance with one or more implementations.

(78) At an operation 306, one or more exercise parameters may be determined based on tracked exercises. Operation 306 may be performed by an exercise analysis module that is the same or similar to exercise analysis module 206, in accordance with one or more implementations.

(79) At an operation 308, physical attribute information may be received. Operation 308 may be performed by a physical attribute module that is the same or similar to physical attribute module 208, in accordance with one or more implementations.

(80) At an operation 310, assistance may be provided for one or more exercises performed using personal wellness device 102. Operation 310 may be performed by an instruction module that is the same or similar to instruction module 210, in accordance with one or more implementations.

(81) At an operation 312, an exercise regimen may be designed. Operation 312 may be performed by a regimen design module that is the same or similar to regimen design module 212, in accordance with one or more implementations.

(82) At an operation 314, an alert associated with one or more scheduled exercises associated with a user may be provided. Operation 314 may be performed by an exercise scheduling module that is the same or similar to exercise scheduling module 214, in accordance with one or more implementations.

(83) At an operation 316, a diet program may be designed. Operation 316 may be performed by a nutrition module that is the same or similar to nutrition module 216, in accordance with one or more implementations.

(84) At an operation 318, an electrical muscle stimulation treatment may be provided to a user via electrical muscle stimulation interface 126. Operation 318 may be performed by a rehabilitation module that is the same or similar to rehabilitation module 218, in accordance with one or more implementations.

(85) Although the invention has been described in detail for the purpose of illustration based on what is currently considered to be the most practical and preferred embodiments, it is to be understood that such detail is solely for that purpose and that the invention is not limited to the disclosed embodiments, but, on the contrary, is intended to cover modifications and equivalent arrangements that are within the spirit and scope of the appended claims. For example, it is to be understood that the present invention contemplates that, to the extent possible, one or more features of any embodiment can be combined with one or more features of any other embodiment.

**What is claimed is:**

1. A personal wellness device configured to facilitate personal wellness management, the personal wellness device comprising:
  - at least one housing body configured to receive compressive force during personal exercise;
  - a force sensor configured to generate a force output signal that conveys information related to compressive force exerted on the at least one housing body, the force sensor being housed by the at least one housing body;
  - a user interface configured to receive information from a user and provide information to the user, the user interface being housed by the at least one housing body; and
  - one or more processors configured to execute one or more computer program modules, the one or more processors being housed by the at least one housing body, the one or more computer program modules comprising:
    - an exercise tracking module configured to track exercises performed using the personal wellness device based on the force output signal generated by the force sensor; and
    - an exercise analysis module configured to determine one or more exercise parameters based on the tracked exercises.
2. The personal wellness device of claim 1, wherein the one or more exercise parameters include one or more of information associated with cardiovascular endurance, respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, and/or balance; calories burnt or energy expended; a completion level of a prescribed exercise routine; a frequency of a particular exercise and/or exercise in general; or a quantified improvement in an exercise.
3. The personal wellness device of claim 1, wherein individual ones of the one or more exercise parameters are based on a comparison with tracked exercises of one or more other users unassociated with the personal wellness device.
4. The personal wellness device of claim 1, wherein the one or more computer program modules further comprise a physical attribute module configured to

receive physical attribute information via the user interface, the physical attribute information relating to one or more of height, weight, age, or gender.

5. The personal wellness device of claim 1, wherein the one or more computer program modules further comprise a instruction module configured provide assistance with one or more exercises performed using the personal wellness device.
6. The personal wellness device of claim 5, wherein the assistance provided by the instruction module is based on one or both of a live interaction with a human coach or an automated response.
7. The personal wellness device of claim 1, wherein the one or more computer program modules further comprise a regimen design module configured to facilitate designing an exercise regimen.
8. The personal wellness device of claim 1, wherein the one or more computer program modules further comprise an exercise scheduling module configured to monitor one or more scheduled exercises associated with a user and/or provide alerts associated with the one or more scheduled exercises.
9. The personal wellness device of claim 1, wherein the one or more computer program modules further comprise a nutrition module configured to analyze a user's diet and facilitate designing a diet program.
10. The personal wellness device of claim 1, further comprising an electrical muscle stimulation interface housed by the at least one housing body and configured to removably couple the personal wellness device with an electrode, the electrode being configured to provide electrical muscle stimulation to a user, and wherein the one or more computer program modules further comprise a rehabilitation module configured to provide electrical muscle stimulation treatment to the user via the electrical muscle stimulation interface.

11. The personal wellness device of claim 1, wherein the at least one housing body comprises two housing bodies including a first housing body and a second housing body, the first housing body and the second housing body being movably coupled together by way of a coupling mechanism such that the two housing bodies are reconfigurable between an open configuration and a closed configuration, the two housing bodies being configured to receive compressive force during personal exercise while in the closed configuration, and wherein the user interface is accessible with the two housing bodies in the open configuration.
  
12. A personal wellness platform configured to facilitate personal wellness management via personal wellness devices, individual ones of the personal wellness devices comprising a force sensor configured to generate a force output signal conveying information relating to compressive force exerted thereon and a user interface configured to receive information from a user and provide information to the user, the personal wellness platform comprising:
  - one or more processors configured to execute one or more computer program modules, the one or more computer program modules comprising:
    - a device-platform communication module configured to facilitate transfer of information between the personal wellness platform and individual ones of the personal wellness devices;
    - an exercise tracking module configured to track exercises performed using individual ones of the personal wellness device based on information transferred between the personal wellness platform and individual ones of the personal wellness devices; and
    - an exercise analysis module configured to determine one or more exercise parameters based on the tracked exercises.
  
13. The personal wellness platform of claim 12, wherein the one or more computer program modules further comprise a physical attribute module configured to receive physical attribute information associated with individual users of the personal wellness devices, the physical attribute information relating to one or more of height, weight, age, DNA, or gender.

14. The personal wellness platform of claim 12, wherein the one or more computer program modules further comprise a instruction module configured provide assistance with one or more exercises performed using individual ones of the personal wellness devices.
15. The personal wellness platform of claim 14, wherein the assistance provided by the instruction module is based on one or both of a live interaction with a human coach or an automated response.
16. The personal wellness platform of claim 12, wherein the one or more computer program modules further comprise a regimen design module configured to facilitate designing an exercise regimen.
17. The personal wellness platform of claim 12, wherein the one or more computer program modules further comprise an exercise scheduling module configured to monitor one or more scheduled exercises associated with a user and/or provide alerts associated with the one or more scheduled exercises.
18. The personal wellness platform of claim 12, wherein the one or more computer program modules further comprise a nutrition module configured to analyze a user's diet and facilitate designing a diet program.
19. The personal wellness platform of claim 12, wherein the device-platform communication module is further configured to transmit, from the personal wellness platform to individual ones of the personal wellness devices, one or more of:
  - one or more exercise parameters based on the tracked exercises;
  - assistance with one or more exercises performed using individual ones of the personal wellness devices;
  - an exercise regimen;
  - alerts associated with scheduled exercises; or
  - a diet program.

20. The personal wellness platform of claim 12, wherein individual ones of the personal wellness devices each comprise two housing bodies including a first housing body and a second housing body, the first housing body and the second housing body being movably coupled together by way of a coupling mechanism such that the two housing bodies are reconfigurable between an open configuration and a closed configuration, the two housing bodies being configured to receive compressive force during personal exercise while in the closed configuration, one or both of the two housing bodies being configured to house one or more of the force sensor, the user interface, or one or more processors configured to execute one or more computer program modules.

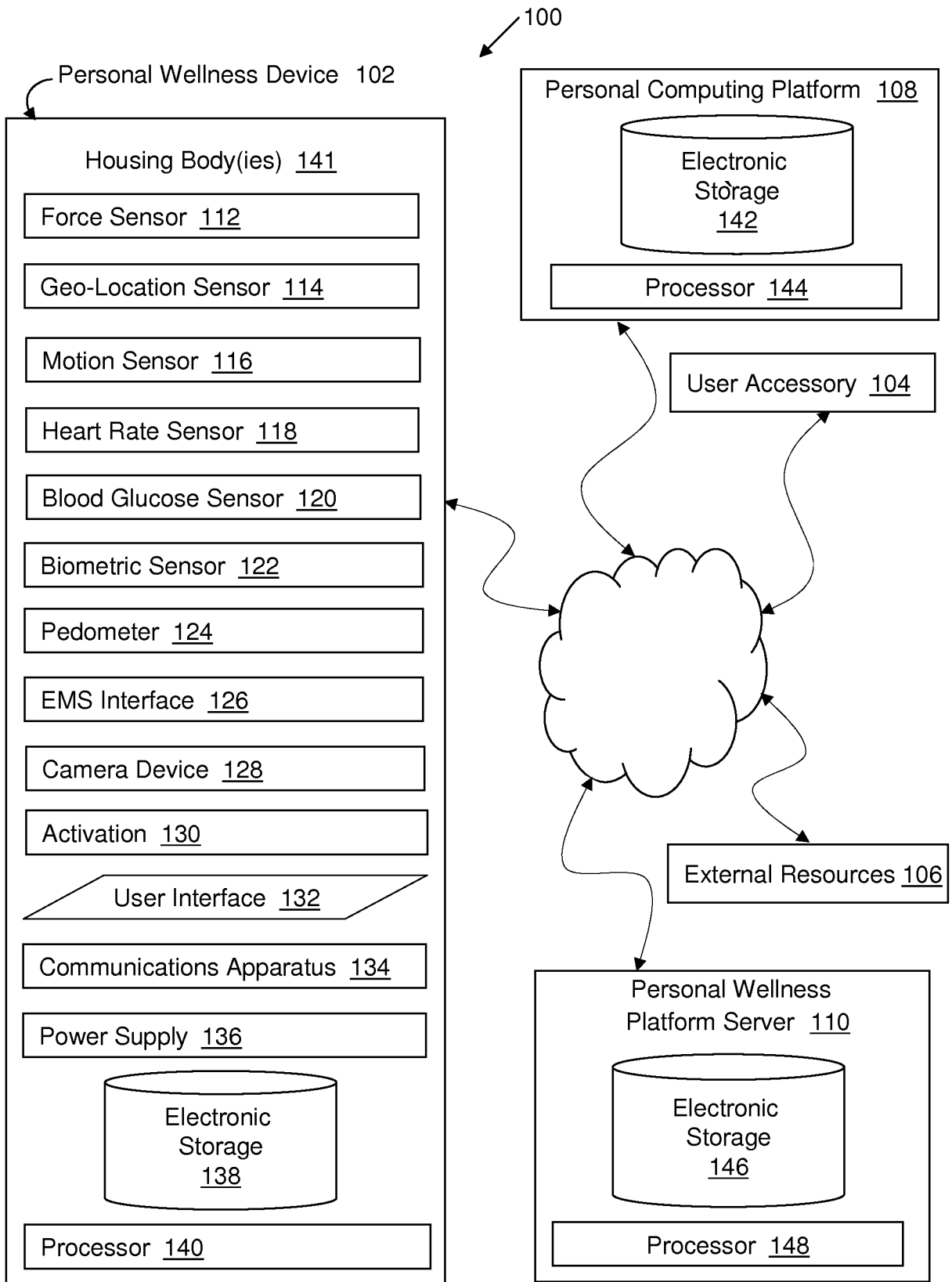


FIG. 1

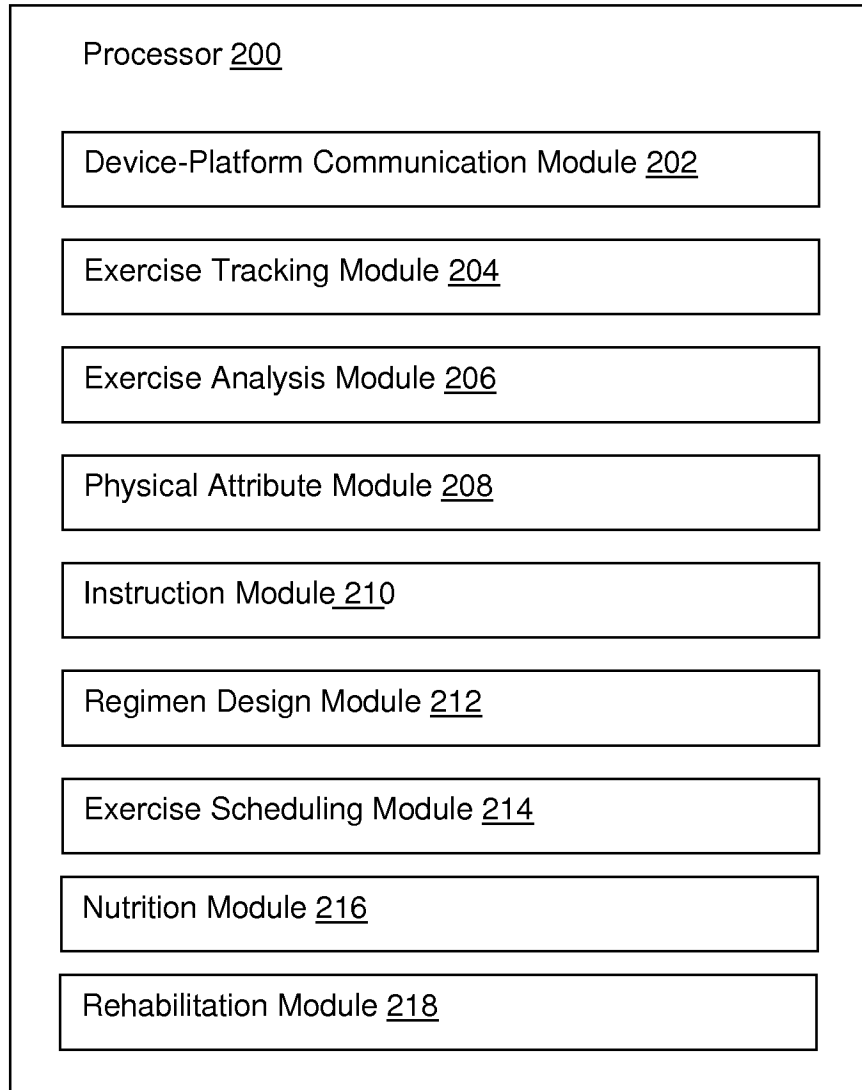


FIG. 2

3/3

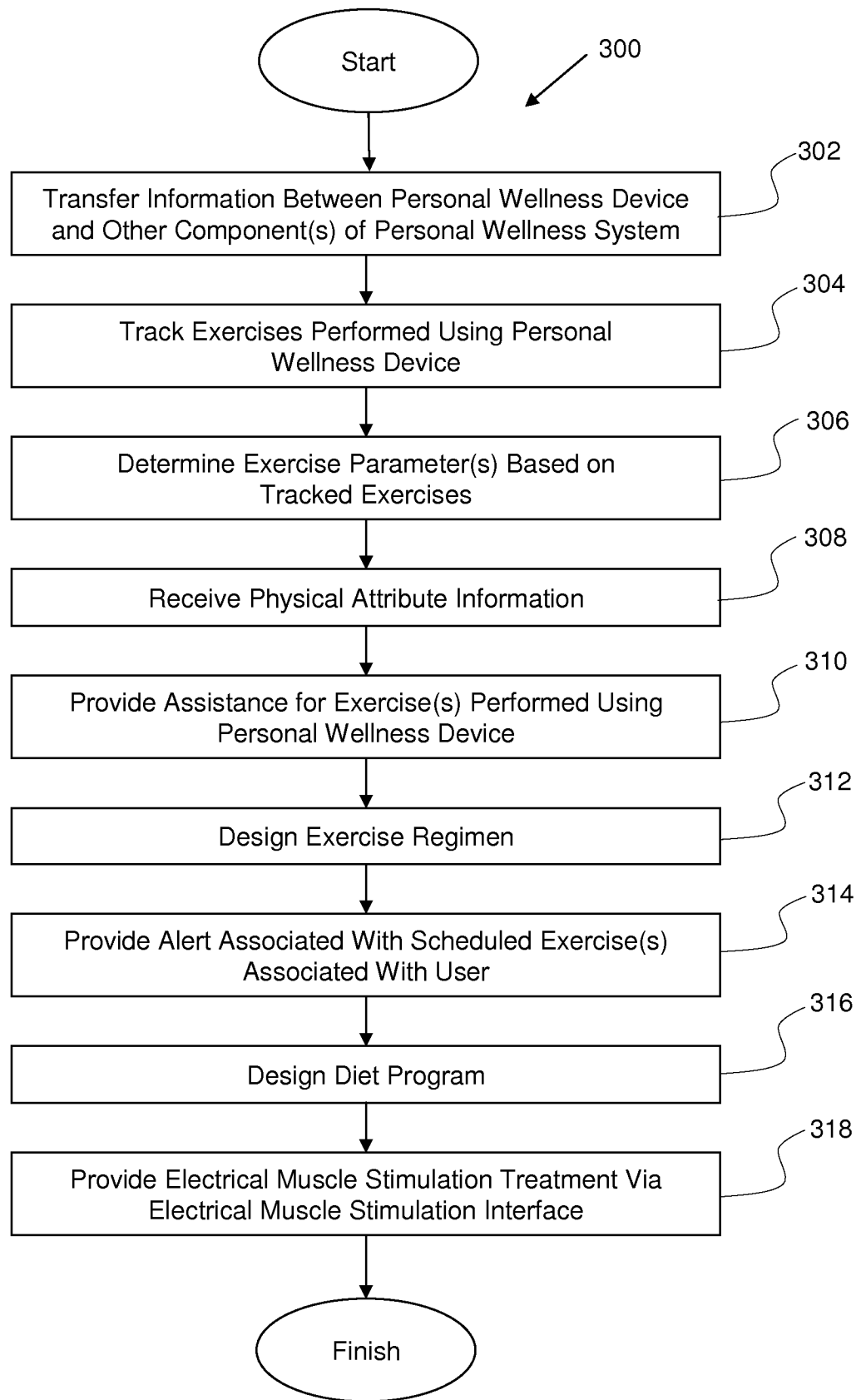


FIG. 3

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US2013/046082

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - A63B 71/00 (2013.01)

USPC - 482/8

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(8) - A63B 71/00 (2013.01)

USPC - 482/1-9, 900-902; 600/587; 607/2, 48, 62

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

CPC - A63B 24/00, 2225/20 (2013.01)

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

PatBase, Google Patents

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 8,172,723 B1 (YANEV et al) 08 May 2012 (08.05.2012) entire document	1-3, 5, 6, 11, 12, 14, 15, 19, 20
---		-----
Y		4, 7-10, 13, 16-18
Y	US 2006/0100899 A1 (TAJIMA) 11 May 2006 (11.05.2006) entire document	4, 9, 13, 18
Y	US 2008/0090703 A1 (ROSENBERG) 17 April 2008 (17.04.2008) entire document	7, 8, 16, 17
Y	US 7,499,746 B2 (BUHLMANN et al) 03 March 2009 (03.03.2009) entire document	10

Further documents are listed in the continuation of Box C.

\* Special categories of cited documents:

“A” document defining the general state of the art which is not considered to be of particular relevance

“E” earlier application or patent but published on or after the international filing date

“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

“O” document referring to an oral disclosure, use, exhibition or other means

“P” document published prior to the international filing date but later than the priority date claimed

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&” document member of the same patent family

Date of the actual completion of the international search

13 November 2013

Date of mailing of the international search report

22 NOV 2013

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents  
P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

Authorized officer:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300  
PCT OSP: 571-272-7774

专利名称(译)	个人健康管理平台		
公开(公告)号	<a href="#">EP2892624A4</a>	公开(公告)日	2016-04-06
申请号	EP2013806095	申请日	2013-06-17
[标]申请(专利权)人(译)	EZ作为饮料PRODIIONS		
申请(专利权)人(译)	EZ作为饮料PRODUCTIONS , INC.		
当前申请(专利权)人(译)	EZ作为饮料PRODUCTIONS , INC.		
[标]发明人	YANEV KOSTADIN DIMITROV VASSILEV ANGEL GEORGIEV YANEV IVO KOSTADINOV		
发明人	YANEV, KOSTADIN, DIMITROV VASSILEV, ANGEL, GEORGIEV YANEV, IVO, KOSTADINOV		
IPC分类号	A63B71/00 A61B5/00 A61B5/0205 A61B5/024 A61B5/11 A61B5/145 A61N1/36 G06F19/00		
CPC分类号	G16H20/40 A61B5/0022 A61B5/0205 A61B5/024 A61B5/11 A61B5/1112 A61B5/1118 A61B5/1123 A61B5/14532 A61B5/7275 A61B5/7455 A61B2505/09 A61N1/36003 F04C2270/041 G06F19/3481		
优先权	13/527401 2012-06-19 US		
其他公开文献	EP2892624A1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

个人健康系统可以通过个人健康设备促进个人健康管理。个人健康设备可以是便携式手持设备，其被配置为便于使用该设备进行个人锻炼和个人健康管理。可以基于施加在个人健康装置上的力，个人健康装置的位置和/或运动，和/或用于跟踪个人锻炼的其他基础来跟踪使用个人健康装置执行的锻炼。跟踪运动可以是确定运动参数的基础，例如与心血管耐力，呼吸耐力，耐力，力量，灵活性，力量，速度，协调性，敏捷性和/或平衡相关的信息；卡路里燃烧或能量消耗；规定的运动程序的完成程度；运动的量化改善；和/或其他运动参数。个人健康系统可以促进自动和/或现场指导，锻炼方案设计，锻炼计划，饮食计划设计，康复和/或与个人健康管理相关联的其他功能。