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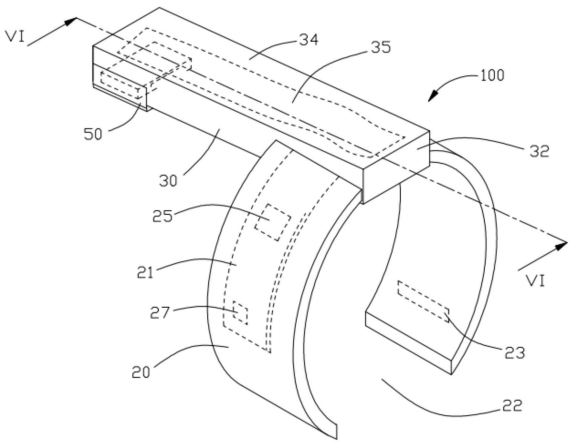
1 page of claims, 6 pages of instructions, 11 pages of drawings

(54) Name of utility model

Fingertip Wearables

(57)Summary

The utility model provides a fingertip wearable device, its bag Including positioning sleeve, thrust piece and inertial measurement module, Set on the positioning sleeve have a processor, The positioning sleeve is used to be detachably socketed on the user's hand refer to, The end of the thrust piece is connected to the positioning sleeve, Inertial Measurement Module set at the end of the thrust member away from the positioning sleeve, Inertial Measurement Module electrically connected to the processor, When the positioning sleeve is worn on the finger, arrived The push piece pushes against the inertial measurement module, the push piece pushes against the top hand finger nails, inertial measurement module is used to detect wearable fingertip wearable movement information of the finger wearing the device; The processor is used to convert the inertial The motion information detected by the measuring module generates a control signal; Fingertips can During use of the wearable device, The inertial measurement module can better Detect the lower frequency movement information of the fingertip, urn information and compare Sports information such as high-frequency vibration information, duce fingertip movement information lost, Improved stability and precision for fingertip wearables sex.



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1. A fingertip wearable device, The fingertip wearable device includes:

positioning sleeve, The positioning sleeve is provided with a processor, The positioning sleeve is used to be detachably socketed on the user's finger;

push pieces, One end of the push piece is connected to the positioning sleeve, as well as

Inertial Measurement Module, The inertial measurement module is arranged at the end of the resisting member away from the positioning sleeve, The habit The property measurement module is electrically connected to the processor, When the positioning sleeve is worn on the finger, The thrust piece resists the inertial sex measurement module, to place the inertial measurement module against the nail of the finger, The inertial measurement module is used to detect wear Movement information of the finger wearing the fingertip wearable device; The processor is used to detect the inertial measurement module The motion information generates a control signal.

2. The fingertip wearable device according to claim 1, It is characterized in that, The positioning sleeve is a positioning ring, said arrival The push piece includes a connecting portion connected to the positioning ring and a resisting portion, One end of the resisting portion is connected to the connecting portion, Place The inertial measurement module is positioned at an end of the resisting portion away from the connecting portion, The resisting portion is far away from the connecting portion One end is closer to the axis of the positioning ring than the connecting portion.

3. The fingertip wearable device according to claim 2, It is characterized in that, The pushing piece is a pushing plate, The company The connecting portion and the resisting portion are respectively provided at opposite ends of the resisting plate, The push plate is away from the positioning sleeve from the One side of the positioning sleeve extends obliquely towards the axis of the positioning sleeve, The inertial measurement module is positioned on the The end of the resisting plate away from the positioning sleeve.

4. The fingertip wearable device according to claim 2, It is characterized in that, The resisting portion is an arc-shaped plate, the arc One end of the shaped plate is connected to the positioning sleeve, The inertial measurement module is positioned on a side of the arc-shaped plate away from the positioning sleeve end, The arc-shaped plate is bent to the side away from the axis line of the positioning sleeve.

5. The fingertip wearable device according to claim 2, It is characterized in that, The resisting portion is a bent plate, the bend One end of the flap is connected to the positioning sleeve, The inertial measurement module is positioned on a side of the bent plate away from the positioning sleeve end, The middle part of the bent plate is bent to the side away from the axis line of the

positioning sleeve. 6. The fingertip wearable device according to claim 2, It is characterized in that, The push piece is elastic, Said arrival There is a circuit in the push piece, The circuit is used to electrically connect the inertial measurement module with the processor.

7. The fingertip wearable device according to claim 2, It is characterized in that, A flexible circuit board is arranged in the pushing piece or conductive wire, The flexible circuit board or conductive wire is used to electrically connect the inertial measurement module with the processor.

8. The fingertip wearable device according to claim 2, It is characterized in that, The positioning ring is elastic, Said A gap is opened on the peripheral wall of the bit ring.

9. The fingertip wearable device according to claim 2, It is characterized in that, The positioning sleeve is provided with a circuit board and an electric source, The processor is located on the circuit board, The power supply is used for the circuit board, processor and the inertial measurement module Block powered.

10. The fingertip wearable device according to claim 1, It is characterized in that, The inertial measurement module includes an inertial sensor and protective layer, The protective layer is wrapped on the outer surface of the inertial sensor.

11. The fingertip wearable device according to claim 10, It is characterized in that, The inertial measurement module also includes an anti-slider, The anti-slip part is provided on the side of the protective layer facing the axis of the positioning sleeve.

12. The fingertip wearable device according to claim 2, It is characterized in that, The push piece also includes a The positioning piece at the end of the resisting portion away from the connecting portion, The positioning sheet is used for mutual positioning with the nail of the finger.

Fingertip Wearables

technical field

[0001] The utility model relates to the field of smart wearables, in particular, it relates to a fingertip wearable device.

Background technique

[0002] Existing smart wearable devices at the finger end generally use a ring to locate the root or middle of the user's finger, so that the smart wearable device can perform pointing or touch interaction in three-dimensional space; The way of touch interaction is usually Touch interaction with another finger on the ring. However, Wearing of the finger ring in the prior art on the user's finger located farther from the fingertips of said fingers, During the use of the ring, part of the information will be lost, For example, with inertia For the ring of the sensing module, If the wearing position of the ring is far from the fingertip, The inertial sensing module will be lost Part of the fingertip movement information, The information includes lower frequency movement information, rotation information and higher frequency vibration information interest.

Utility model content

[0003] This application provides a fingertip wearable device, The fingertip wearable device can avoid information loss of fingertip movement lose.

[0004] A fingertip wearable device provided by the present application, The fingertip wearable device includes:

[0005] positioning sleeve, The positioning sleeve is provided with a processor, The positioning sleeve is used to be detachably socketed on the user's finger;

[0006] push pieces, One end of the push piece is connected to the positioning sleeve, as well as

[0007] Inertial Measurement Module, The inertial measurement module is arranged at the end of the resisting member away from the positioning sleeve, Place The inertial measurement module is electrically connected to the processor; When the positioning sleeve is worn on the finger, The thrust member resists the The inertial measurement module, so that the pusher pushes against the nail of the finger, The inertial measurement module is used to detect motion information of the finger wearing the fingertip wearable device; The processor is used to detect the inertial measurement module The motion information generates a control signal.

[0008] The positioning sleeve of the fingertip wearable device of the utility model can be positioned to a place where the finger is close to the fingertip, push piece push custom sex measurement module, so that the inertial measurement module is pressed against the nail of the finger, to position the inertial measurement module on the nail. therefore, During use of the fingertip wearable device, The inertial measurement module is better able to detect the lower frequency of the fingertip mobile information, Motion information such as rotation information and higher frequency vibration information, Reduce the loss of fingertip movement information, raised the index The stability and precision of cutting-edge wearable devices.

Description of drawings

[0009] In order to illustrate the technical scheme of the utility model embodiment more clearly, The following will be used in the implementation A brief introduction with the accompanying drawings, obviously, The accompanying drawings in the following description are some embodiments of the present utility model, for For those of ordinary skill in the art, Without any creative effort, Others can also be obtained from these drawings attached drawings.

[0010] FIG. 1 is a schematic diagram of a three-dimensional structure of a wearable fingertip device in the first embodiment of the present application;

[0011] FIG. 2 is a schematic diagram of an exploded three-dimensional structure of the wearable fingertip device in FIG. 1;

[0012] Fig. 3 is a schematic perspective view of the three-dimensional structure of the fingertip wearable device in

[0013] Fig. 1; Fig. 4 is a perspective view of the three-dimensional structure of the fingertip wearable device in Fig.

[0014] 3; Schematic diagram of one end face structure of the pointed wearable device; FIG. 6 is a cross-sectional

[0015] view along line VI-VI in FIG. 1;

[0016] Fig. 7 is an enlarged view of part VII in Fig. 6;

[0017] Fig. 8 is a schematic view of the use status of the fingertip wearable device in Fig. 1; Fig. 9 is a schematic three-dimensional structural

[0018] view of the fingertip wearable device in the second embodiment of the application; Fig. 10 is a schematic view of the fingertip wearable

[0019] device in the third embodiment of the application A schematic structural view of a fingertip wearable device; FIG. 11 is a schematic

[0020] structural view of a fingertip wearable device in the fourth embodiment of the present application; FIG. 12 is a three-dimensional

[0021] structural schematic view of a fingertip wearable device in a fifth embodiment of the present application; FIG. 13 is a schematic

[0022] structural view of one end of the fingertip wearable device in FIG. 12; FIG. 14 is a structural schematic view of the fingertip wearable

[0023] device in the sixth embodiment of the present application. Description of main signs:

[0024]

[0025] 100, fingertip wearables; 20. positioning sleeve; twenty one. circuit board; twenty two. gap; twenty three. power supply; 24. The first conductive sheet; 25. processor; 27. wireless communication module; 30. push piece; 32. connecting part; 322、positioning slot; 324. The second conductive sheet; 34. arrived push department; 342、positioning port; 344. The third conductive sheet; 35. flexible circuit board; 36. Positioning piece; 50. Inertial measurement module; 51. guide Electric pad; 52、inertial sensor; 54. The protective layer; 56. Anti-slip part.

Detailed ways

[0026] Below in conjunction with accompanying drawing in the utility model embodiment, Carry out the technical scheme in the utility model embodiment clearly and completely describe, Obviously, The described embodiment is only a part of the embodiment of the utility model, instead of all Example. Based on the embodiment in the utility model, Those of ordinary skill in the art, provided that no creative work All other examples obtained, All belong to the protection scope of the utility model.

[0027] also, The following descriptions of the various embodiments refer to the accompanying drawings to illustrate specific embodiments in which the present application can be practiced. The directional terms mentioned in this application, for example, "superior", "Down", "forward", "back", "Left", "right", "Inside", "outside", "side" etc., is only for reference to the orientation of the attached drawing, therefore, The directional language used is for better, clearer clearly describe and understand this application, rather than indicating or implying that the device or element referred to must have a particular orientation, Ether fixed orientation construction and operation, Therefore, it should not be construed as limiting the application.

[0028] In the description of this application, It should be noted, Unless otherwise expressly specified and limited, the term "installation", "mutually even", "connect", "set in..." "up" should be understood in a broad sense, For example, Can be fixed connection, Can also be detachable catch, or integrally connected; can be mechanically connected; can be directly connected, It can also be connected indirectly through an intermediary. Can So it is the connection between the two components. For those of ordinary skill in the art, the The above terms may be understood in a context-specific manner specific meaning in this application.

[0029] Please refer to Figure 1 to Figure 5 together, The fingertip wearable device 100 in the first embodiment of the present utility model includes positioning The sleeve 20, the thrust member 30 and the inertial measurement module 50, The positioning sleeve 20 is provided with a circuit board 21 power supply 23, and set on the circuit board Electronic devices such as processor 25 and wireless communication module 27 on 21; Optionally, The circuit board 21 is a flexible circuit board, circuit board 21 be electrically connected with the inertial measurement module 50 so that the electrical connection of the inertial measurement module 50 is connected Power supply 23 is used to power the circuit board twenty one, Processor 25, The wireless communication module 27 and the inertial measurement module 50 provide electric power, The positioning sleeve 20 is used to be detachably socketed on the the user's finger, One end of the thrust member 30 is connected to the positioning sleeve 20, The inertial measurement module 50 is arranged on the thrust member 30 away from the positioning

one end of sleeve 20, After the positioning sleeve 20 is worn on the user's finger, The push member 30 pushes the inertial measurement module 50 against the hand finger nails, The inertial measurement module 50 is used to detect the motion information of the finger wearing the fingertip wearable device 100; processor 25 is used to generate a control signal from the motion information detected by the inertial measurement module 50; Wireless communication module 27 and processor 25 electricity connect, The wireless communication module 27 is used to establish a connection with an external smart device, To send the control signal generated by the processor 25 to sent to an external smart device, to enable the smart device to perform an operation corresponding to the control signal.

[0030] When the fingertip wearable device 100 of the present application is worn on one of the user's fingers, Positioning sleeve 20 can be positioned to fingers close to the fingertips, The pushing member 30 pushes the inertial measurement module 50 against the nail of the finger, to make the inertial measurement module 50 positioned on the nail, The wearable device 100 is stably positioned at the fingertip. therefore, Fingertip Wearable 100 During use, The inertial measurement module 50 can preferably detect motion information such as lower frequency movement information, rotation information and higher frequency vibration information of the fingertip, Reduce the loss of fingertip movement information, Improved fingertip wearable device 100 stability and precision.

[0031] understandable, The processor 25 is the control center of the finger wearable device 100, Processor 25 can be run by running or execute a software program stored in memory, and recall data stored in memory, to implement fingertip wearable devices 100 various functions and processing data, Thereby monitoring the fingertip wearable device 100; Processor 25 is capable of converting inertial measurements The gesture motion detected by module 50 generates a control signal; The wireless communication module 27 can include bluetooth, Infrared, RF, 5G One or more of network or 5G WIFI; The wireless communication module 27 can be built with the wireless communication module of external intelligent equipment stand connected, The control signal corresponding to the gesture motion detected by the processor 25 generated by the inertial measurement module 50 can be sent to the external smart device, so that the external smart device executes the operation corresponding to the control signal. As

[0032] shown in Figure 1-Figure 7, The positioning sleeve 20 is a positioning ring, The thrust member 30 includes a connecting portion 32 connected to the positioning sleeve 20 and thrusting part 34, One end of the resisting portion 34 is connected to the connecting portion 32, The inertial measurement module 50 is positioned at the resisting portion 34 away from the connecting portion 32 at one end, An end of the resisting portion 34 away from the connecting portion 32 is closer to the axis L of the positioning ring than the connecting portion 32 . The connection part 32 can be fixedly connected with the positioning sleeve 20, It can also be connected detachably. Optionally, The connecting part 32 is provided with a positioning groove 322, The positioning sleeve 20 is passed through the positioning groove 322, so the positioning sleeve 20 is connected to the connecting portion 32 .

[0033] In some embodiments, The positioning sleeve 20 can also be connected to the connecting portion by means of gluing, clamping or screwing, etc. 32. In some embodiments, The positioning sleeve 20 and the pushing member 30 can also be integrally formed. In this example, Positioning sleeve 20 is oval shaped positioning ring, The positioning ring is elastic, The diameter of the positioning ring can be changed as required, In order to make the positioning sleeve 20 suitable for different diameter-sized fingers; further, A gap 22 is opened on the peripheral wall of the positioning ring, Notches 22 pass through opposite sides of the retaining ring noodle, A notch 22 is set on the positioning sleeve 20, It is convenient to wear the positioning sleeve 20 on the user's finger. Optionally, Notch 22 and even The connecting portion 32 is directly opposite to the radial direction of the positioning sleeve 20, The notch 22 and the connecting portion 32 are located at two opposite sides in the radial direction of the positioning sleeve 20 . end. The outer surface of the positioning sleeve 20 is provided with a plurality of first conductive sheets 24 electrically connected to the circuit board 21, The first conductive sheet 24 is used to The inertial measurement module 50 is electrically connected to the circuit board 21. Optionally, The first conductive sheet 24 is arranged on the outer peripheral surface of the positioning sleeve 20 and connects In the area where part 32 connects. In some embodiments, The first conductive piece 24 can also be arranged on the inner peripheral surface of the positioning sleeve 20 and connect In the area where part 32 connects.

[0034] The positioning sleeve 20 can adopt but not limited to elastic rubber, Made of elastic materials such as elastic plastic, Inside the positioning sleeve 20 There is a cavity inside, circuit board 21, Processor 25, Wireless communication module 27, Electronic devices such as the power supply 23 are accommodated in the inner cavity.

[0035] In this example, The thrust member 30 is a bar-shaped thrust plate, The connecting portion 32 and the resisting portion 34 are respectively arranged on the resisting opposite ends of the board, The push plate extends obliquely from the positioning sleeve 20 to the side away from the positioning sleeve 20 and toward the axis L of the positioning sleeve 20, The inertial measurement module 50 is positioned at an end of the resisting plate away from the positioning sleeve 20 . Locating slot 322 The opposite ends respectively pass through the opposite two sides of the push plate, The end of the resisting portion 34 away from the connecting portion 32 is provided with a positioning opening

342, The inertial measurement module 50 is positioned at the positioning port 342; specifically, the positioning opening 342 is located at the side of the resisting portion 34 facing the positioning sleeve 20 The side of the axis L is away from one end of the connecting portion 32; When the inertial measurement module 50 is positioned at the positioning port 342, inertial measurement module Part of the block 50 extends out of the side of the resisting portion 34 facing the axis L of the positioning sleeve 20 . The inertial measurement module 50 can be positioned in the positioning opening 342 by, but not limited to, glued, clamped or screwed. A circuit is arranged in the thrust member 30, The circuit is used to The inertial measurement module 50 is electrically connected to the processor 25 . Optionally, A flexible circuit board 35 is arranged in the thrust member 30, Flexible Circuit Board 35 For the electrical connection between the inertial measurement module 50 and the circuit board 21, So that the inertial measurement module 50 is electrically connected with the processor 25 . The truth Example, wire groove is arranged in the thrust member 30 along its length direction, The flexible circuit board 35 is passed through the slot. in some embodiments middle, conductive wires can also be set in the thrust member 30, The conductive wire is used for electrical connection between the inertial measurement module 50 and the circuit board 21, So that the inertial measurement module 50 is electrically connected with the processor 25 .

[0036] As shown in Figure 6, The extending direction of the thrust member 30 intersects the axis L of the positioning sleeve 20, specifically, thrust piece 30 The angle a between the extension direction and the axis L is greater than 0 degrees and less than 90 degrees; Preferably, the included angle a is greater than 5 degrees and less than 30 degrees.

[0037] The inner surface of the positioning groove 322 of the connecting part 32 is provided with a plurality of second conductive sheets electrically connected to the flexible circuit 324, board 35. When the positioning sleeve 20 is connected to the connecting part 32, The plurality of first conductive sheets 24 of the positioning sleeve 20 are respectively connected to the plurality of The second conductive sheet 324 contacts, connecting portions 32 to electrically connect the circuit board 21 to the inertial measurement module 50 . The inside of the positioning port 342 of the thrust part 34 A plurality of third conductive sheets 344 electrically connected to the flexible circuit board 35 are disposed on the surface. The inertial measurement module 50 is provided with a plurality of conductive pads 51. When the inertial measurement module 50 is positioned in the positioning port 342, A plurality of conductive pads 51 are respectively connected with a plurality of second conductive sheets 324 contacts, The inertial measurement module 50 is electrically connected to the flexible circuit board 35 .

[0038] Optionally, The thrust member 30 is elastic, The thrust member 30 can be but not limited to elastic plastic, elastic rubber etc.

[0039] The inertial measurement module 50 in the present application includes an inertial sensor 52 and a protective layer 54, The inertial measurement module 50's outer The surface is wrapped with a protective layer 54 . specifically, The outer surface of the inertial sensor 52 is wrapped with a protective layer except the area of the conductive pad 51. Layer 54, When the inertial measurement module 50 is positioned at the positioning port 342, The protective layer 54 protrudes from the thrust piece 30 and faces the axis of the positioning sleeve 20 side of line L.

[0040] Optionally, The inertial measurement module 50 also includes an anti-skid portion 56, The anti-slip portion 56 is located on the protective layer 54 facing the positioning sleeve 20 side of the axis L, The anti-skid portion 56 can increase the frictional force in contact with the outer surface of the nail, positioning the inertial measurement module 50 on nails. Anti-slip part 56 can adopt but not limited to adopt soft rubber material, Soft plastic or silicone, etc., can guarantee After the fingertip wearable device 100 is worn on the finger, The inertial measurement module 50 is closely attached to the outer surface of the nail of the finger.

[0041] In some embodiments, The inertial measurement module 50 may also include an acceleration sensor and a gyroscope, Acceleration transmission The sensor can be a piezoelectric acceleration sensor, piezoresistive acceleration sensor, Capacitive acceleration sensors, etc. accelerate The degree sensor can detect the acceleration of the fingertip wearable device 100, The gyroscope can detect the angle of the fingertip wearable device 100 speed Understandably, The inertial measurement module 50 is a device for measuring the three-axis angular velocity and acceleration of an object.

[0042] Please also refer to Figure 1, Figures 6-8, when using it, Put the fingertip wearable device 100 on the user's finger, make The positioning sleeve 20 is sleeved on the fingertip of the finger, The anti-slip part 56 of the inertial measurement module 50 is attached to the surface of the nail of the finger noodle, at this time, The inertial measurement module 50 is positioned at the tip of the finger. For example, in one of the usage scenarios, the user can control the finger up, down, move left or right, The processor 25 can move the gesture of the finger detected by the inertial measurement module 50 Generate the corresponding upward sliding control signal, Swipe down to control the signal, Swipe left to control signal or swipe right to control Signal; The wireless communication module 27 can send these sliding control signals to the wireless communication module of the external smart device, by The gesture action of the fingertip wearable device 100 is implemented to control the external smart device to perform the corresponding operation.

[0043] Since the fingertip wearable device 100 of the present application is in use, The positioning sleeve 20 can be stably socketed on the user's finger superior, and the inertial measurement module 50 can be firmly positioned on the outer surface of the nail of the finger through the anti-skid portion 56, makes inertia

The measurement module 50 is positioned at the fingertip of the finger. therefore, During use of the fingertip wearable device 100, inertial measurement The module 50 can more accurately detect the motion information of the fingertip, Reduce the loss of fingertip movement information, raised fingertips The stability and accuracy of the wearable device 100.

[0044] Please refer to Figure 9, The structure of the fingertip wearable device 100a in the second embodiment of the present application is the same as that in the first embodiment The structure of the fingertip wearable device 100 in is similar, The difference is: Omit on the basis of the fingertip wearable device 100 anti-slip part 56, And add a positioning mechanism for positioning the inertial sensor 52 to the nail at the end of the thrust member 30 away from the positioning sleeve 20; specifically, The resisting member 30 further includes a positioning piece 36 connected to an end of the resisting portion 34 away from the connecting portion 32, Inertial measurement module The block 50 can be arranged on the end of the resisting part 34 away from the connecting part 32 or the inertial measurement module 50 can be arranged on the positioning piece 36, Positioning pieces 36 for mutual positioning with the nail of the finger. Optionally, The shape of the positioning piece 36 is similar to the shape of the nail, that is, positioning film 36 may be a nail art similar in shape to a nail. When the fingertip wearable device 100a is set on the user's finger, Positioning pieces 36 and the nails of the fingers are mutually attached and positioned, Not only can the inertial measurement module 50 be firmly positioned on the nail, And have It has the effect of beautifying nails.

[0045] Optionally, The positioning piece 36 is detachably attached to the surface of the nail; Positioning piece 36 can be designed as the beauty of various styles. A style.

[0046] Optionally, Positioning piece 36 can adopt but not limited to rubber, Made of plastic or silicone.

[0047] When the fingertip wearable device 100a needs to be used, Put the positioning sleeve 20 of the fingertip wearable device 100a on the hand fingertips, The positioning sheet 36 is attached to the outer surface of the nail of the finger; at this time, The inertial measurement module 50 is positioned on the tip, So that the fingertip wearable device 100a is stably positioned on the fingertip. The usage method of the fingertip wearable device 100a is the same as that of the fingertip wearable device 100, No further description here. During use of the fingertip wearable device 100a, The inertial measurement module 50 can detect the motion information of the fingertip more accurately, Reduce the loss of fingertip movement information, increased The stability and precision of the fingertip wearable device 100a, And the positioning sheet 36 has the effect of beautifying the nail.

[0048] See Figure 10, The structure of the fingertip wearable device 100b in the third embodiment of the present application is the same as that in the first embodiment The structure of the fingertip wearable device 100 in is similar, The difference is: The resisting portion 30a is an arc-shaped plate, One of the curved plates The end is connected to the positioning sleeve 20, The inertial measurement module 50 is positioned on the end of the arc-shaped plate away from the positioning sleeve 20, and the arc-shaped plate Bend to the side away from the axis line of the positioning sleeve 20 . Optionally, The curved plate is elastic, The arc-shaped plate is away from the positioning sleeve One end of 20 is closer to the axis L of the positioning sleeve 20 than the end of the arc-shaped plate connected to the positioning sleeve 20, makes inertia The measuring module 50 is closer to the axis L of the positioning sleeve 20 than the end of the arc plate connected to the positioning sleeve 20 . When the fingertip wearable device 100b is worn on the user's finger, The resisting portion 30a has a relatively large elastic force to resist the inertial measurement module 50 is located on the nail of the finger. The usage method of the fingertip wearable device 100b is the same as that of the fingertip wearable device 100, No further description here.

[0049] See Figure 11, The structure of the fingertip wearable device 100c in the fourth embodiment of the present application is the same as that in the first embodiment The structure of the fingertip wearable device 100 in is similar, The difference is: The resisting portion 30b is a bent plate, One of the bent plates The end is connected to the positioning sleeve 20, The inertial measurement module 50 is positioned on the end of the bent plate away from the positioning sleeve 20, and the bent plate The middle part is bent to the side away from the axis line of the positioning sleeve 20 . Optionally, The bent plate is elastic, The bent plate is away from One end of the positioning sleeve 20 is closer to the axis L of the positioning sleeve 20 than the end of the bent plate connected to the positioning sleeve 20, make The inertial measurement module 50 is closer to the axis L of the positioning sleeve 20 than the end of the bent plate connected to the positioning sleeve 20 . When the fingertip wearable device 100c is worn on the user's finger, The thrust part 30b has a large elastic force to resist the inertial measurement Module 50 is positioned on the nail of the finger. The usage method of the fingertip wearable device 100c is the same as that of the fingertip wearable device 100, No further description here.

[0050] Please refer to Figure 12 and Figure 13, The structure of the fingertip wearable device 100d in the fifth embodiment of the present application is the same as that of the first The structure of the fingertip wearable device 100 in the embodiment is similar, The difference is: The positioning sleeve 20a is a circular cylinder, push piece 30 One end is connected to the circular cylinder, The peripheral wall of the circular cylinder is provided with a gap 22, Notches 22 pass through opposite sides of the cylinder noodle, The resisting member 30 and the notch 22 are located at two radially opposite ends of the cylinder. The usage method of the fingertip wearable device 100d is the same as that of the fingertip wearable device 100, No further description here.

[0051] See Figure 14, The structure of the fingertip wearable device 100e in the sixth embodiment of the present application is the same as that in the first embodiment The structure of the fingertip wearable device 100 in is similar, The difference is: The positioning sleeve 20b is a closed-loop elliptical cylinder, push piece One end of 30 is connected to the oval cylinder, The oval cylinder is elastic, so that oval cylinders can be socketed in different diameters on the finger. The usage method of the fingertip wearable device 100e is the same as that of the fingertip wearable device 100, not here Let me describe it again.

[0052] The above is the implementation manner of the utility model embodiment, a, For those of ordinary skill in the art member, Under the premise of not departing from the principle of the utility model embodiment, several improvements and refinements could also be made, these improvements And retouching are also regarded as the scope of protection of the present utility model.

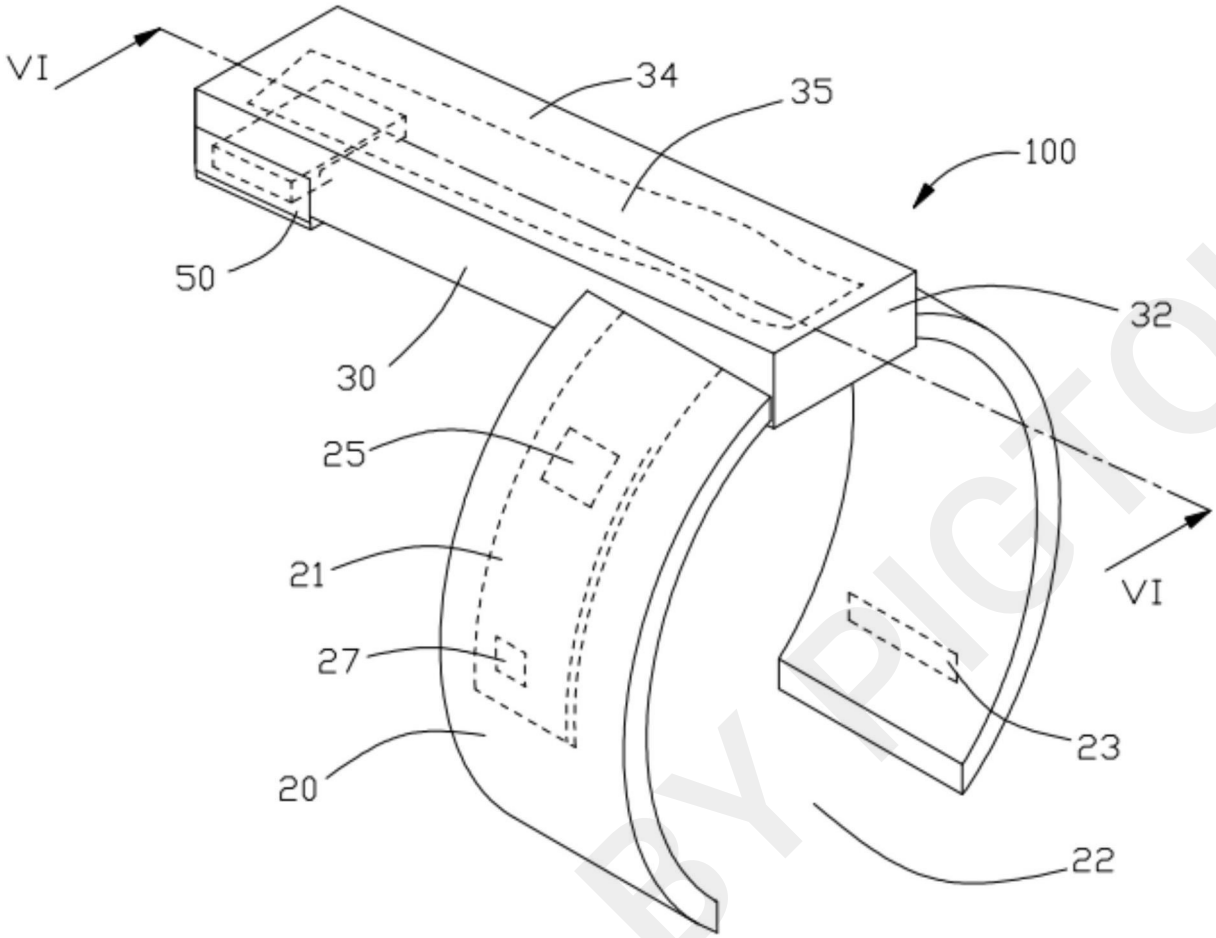

figure 1

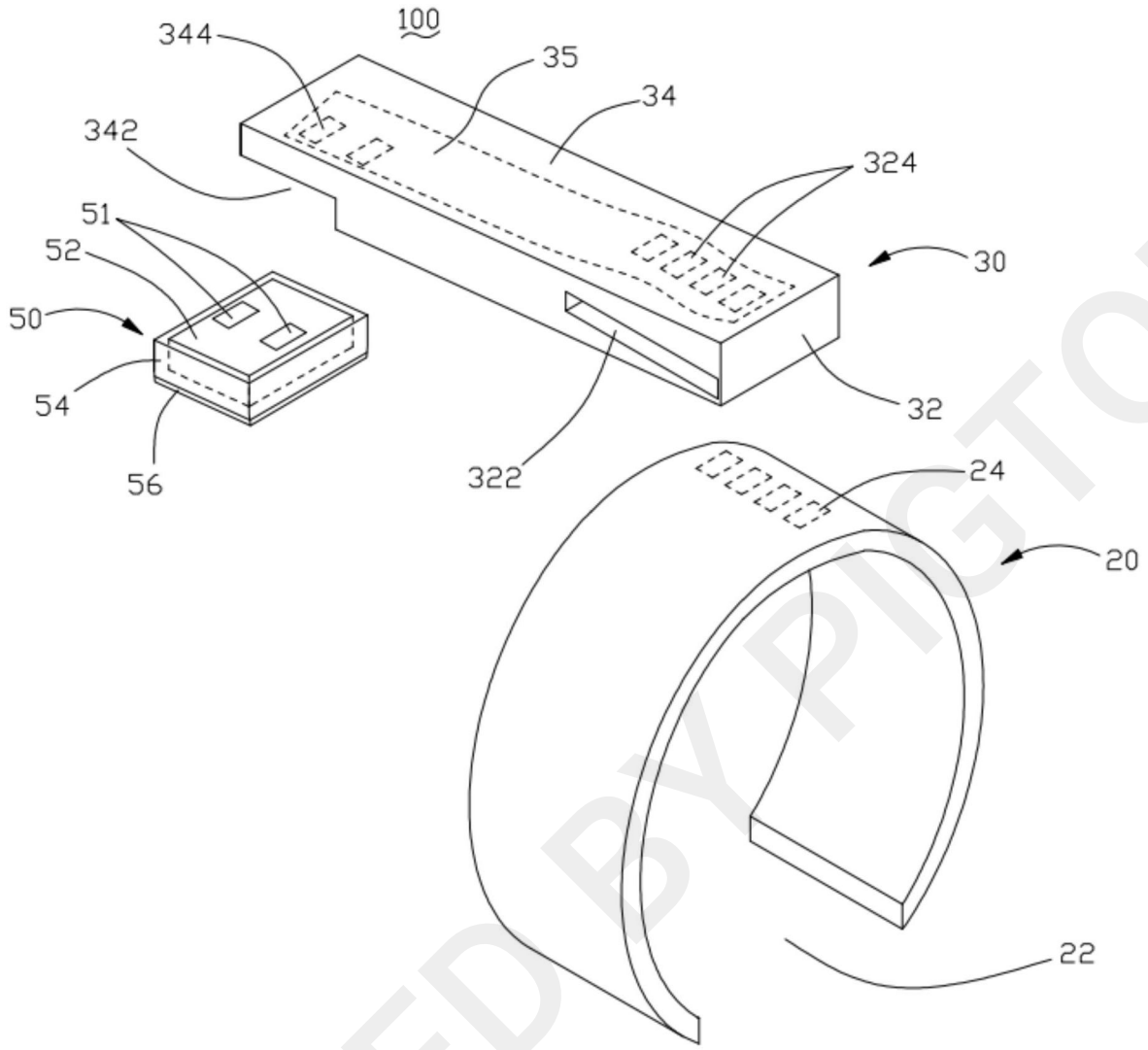

figure 2

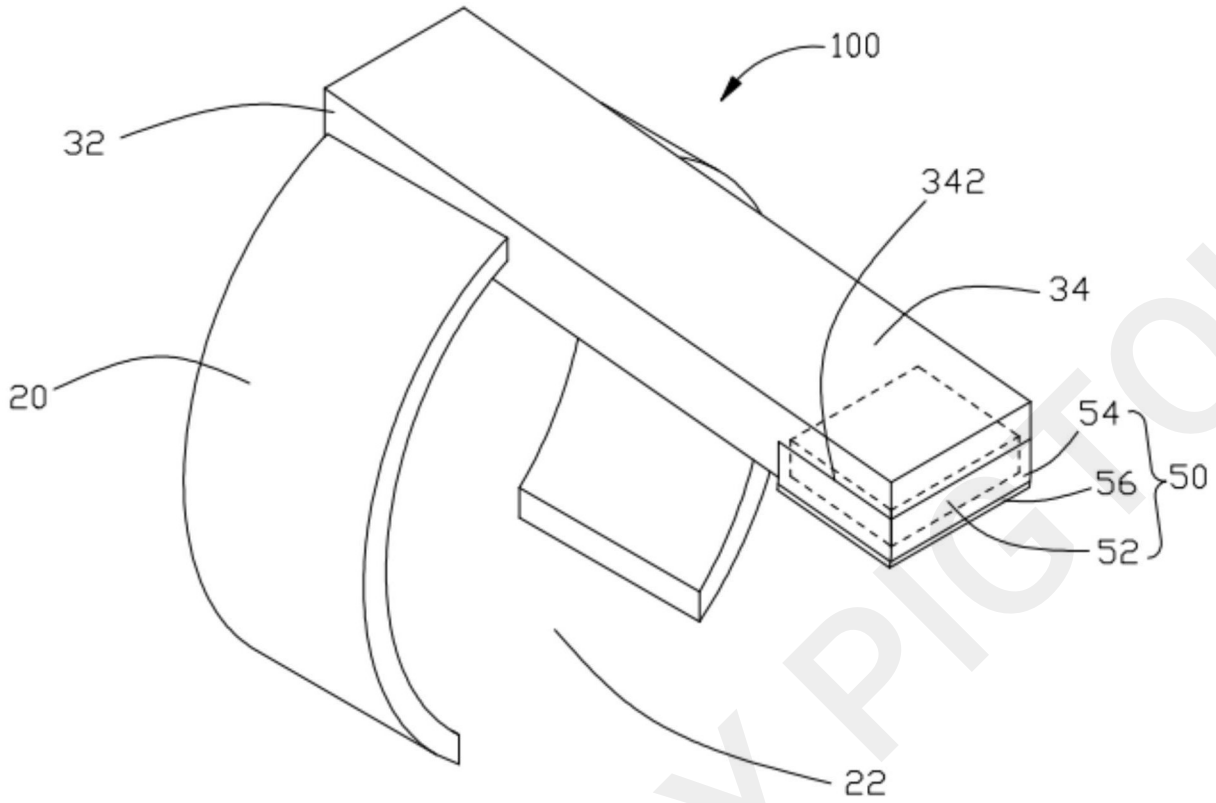

image 3

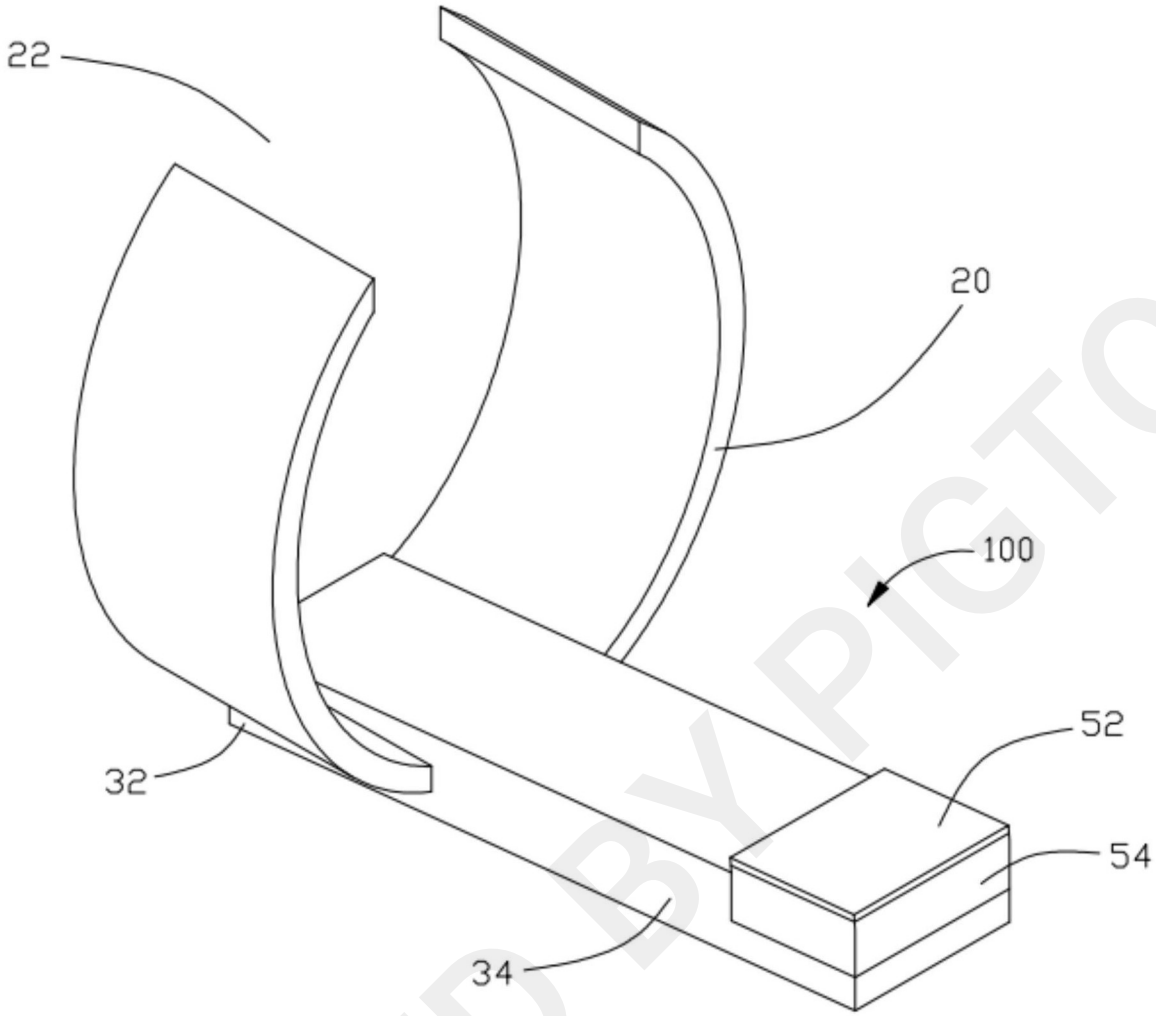

Figure 4

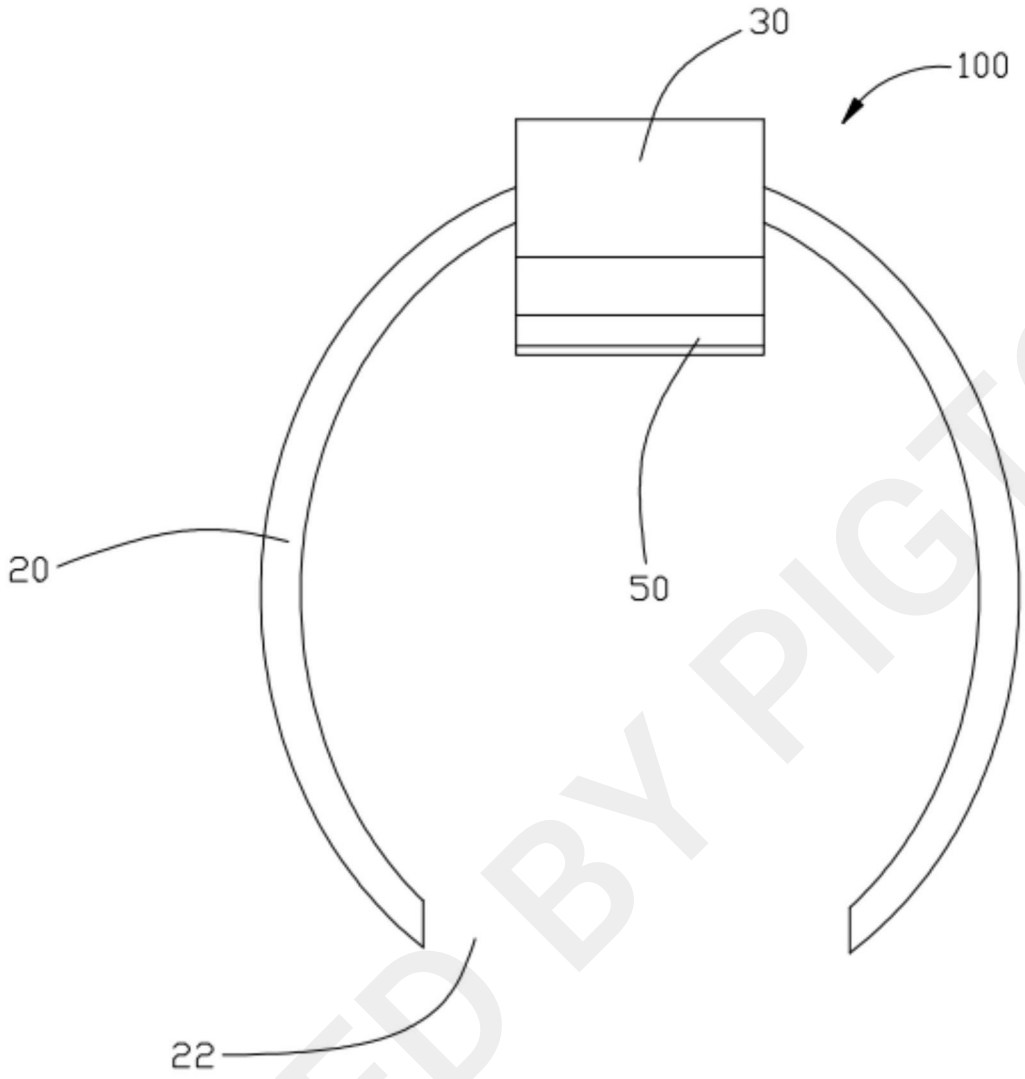

Figure 5

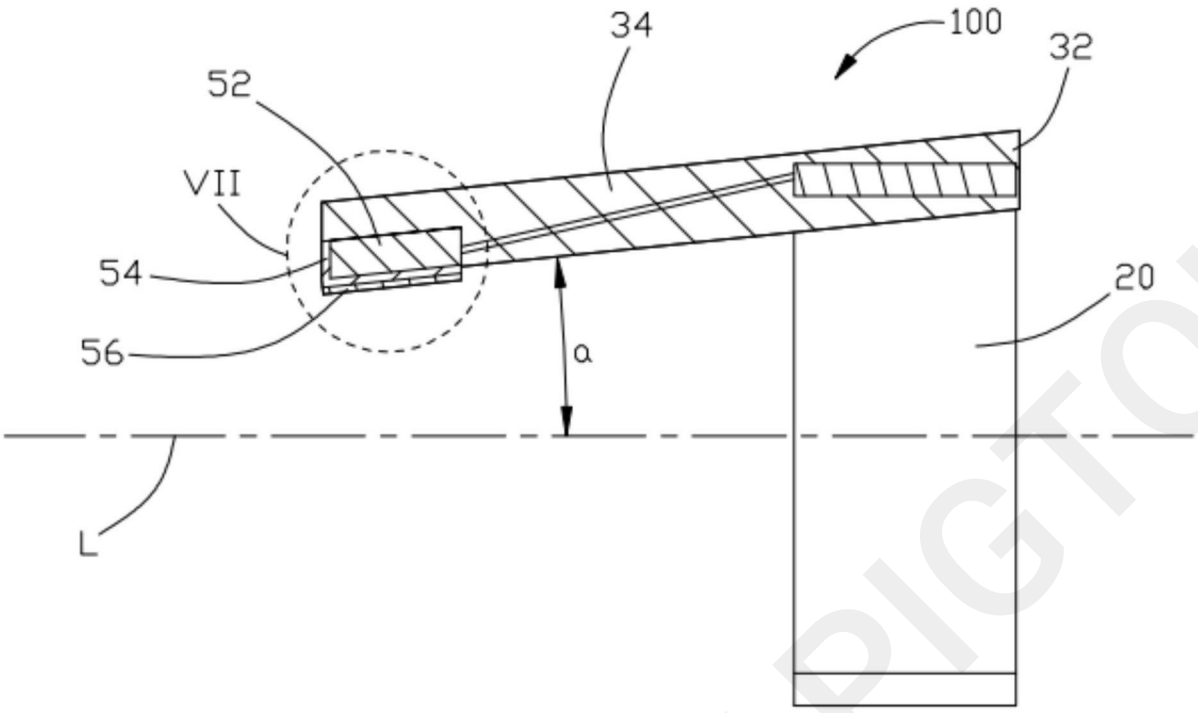

Figure 6

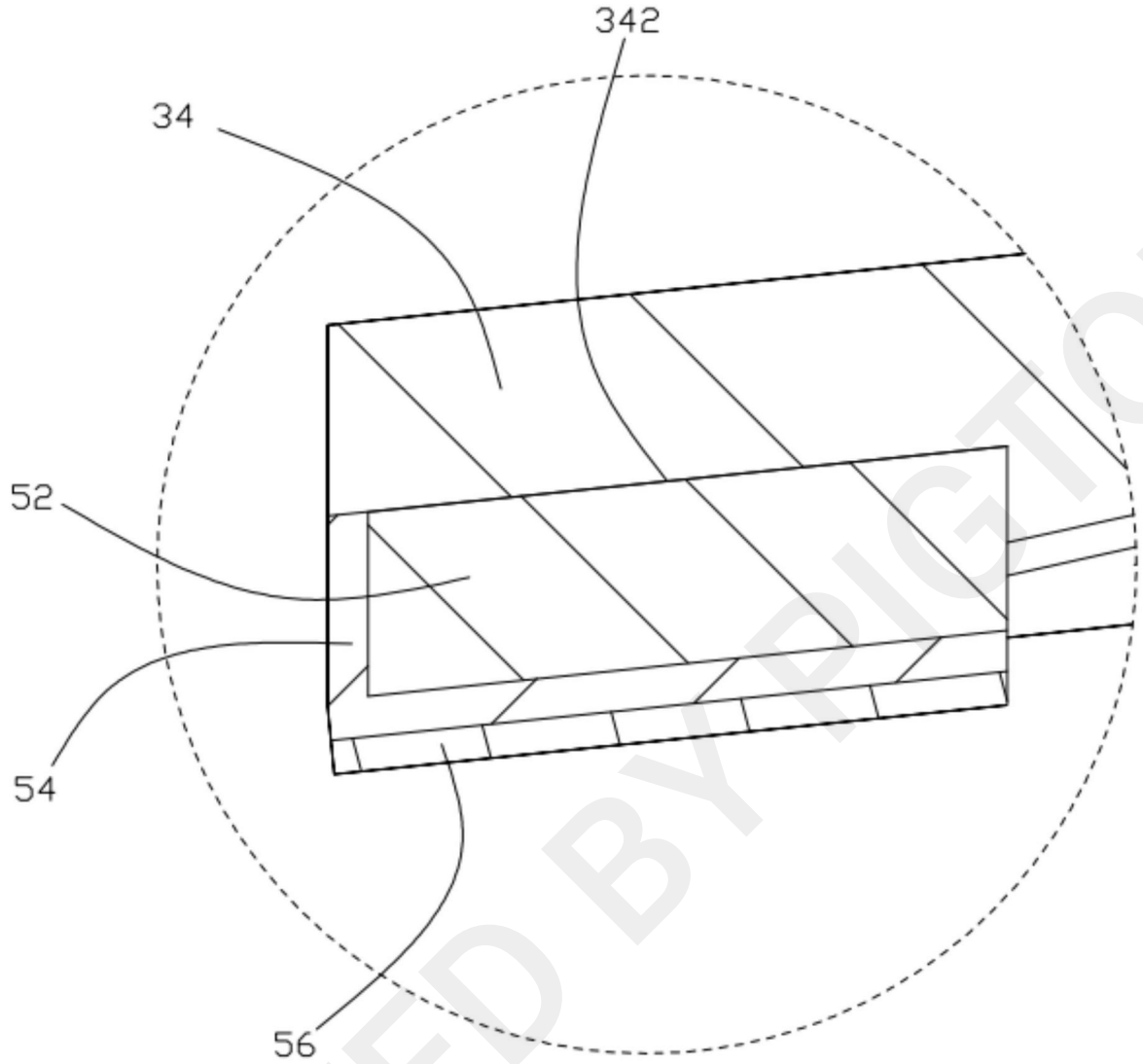

Figure 7

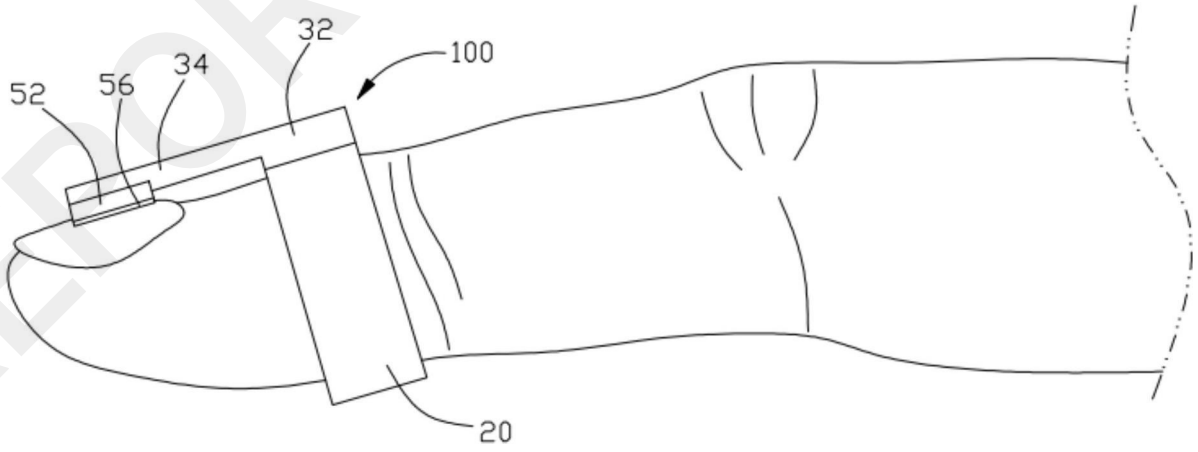

Figure 8

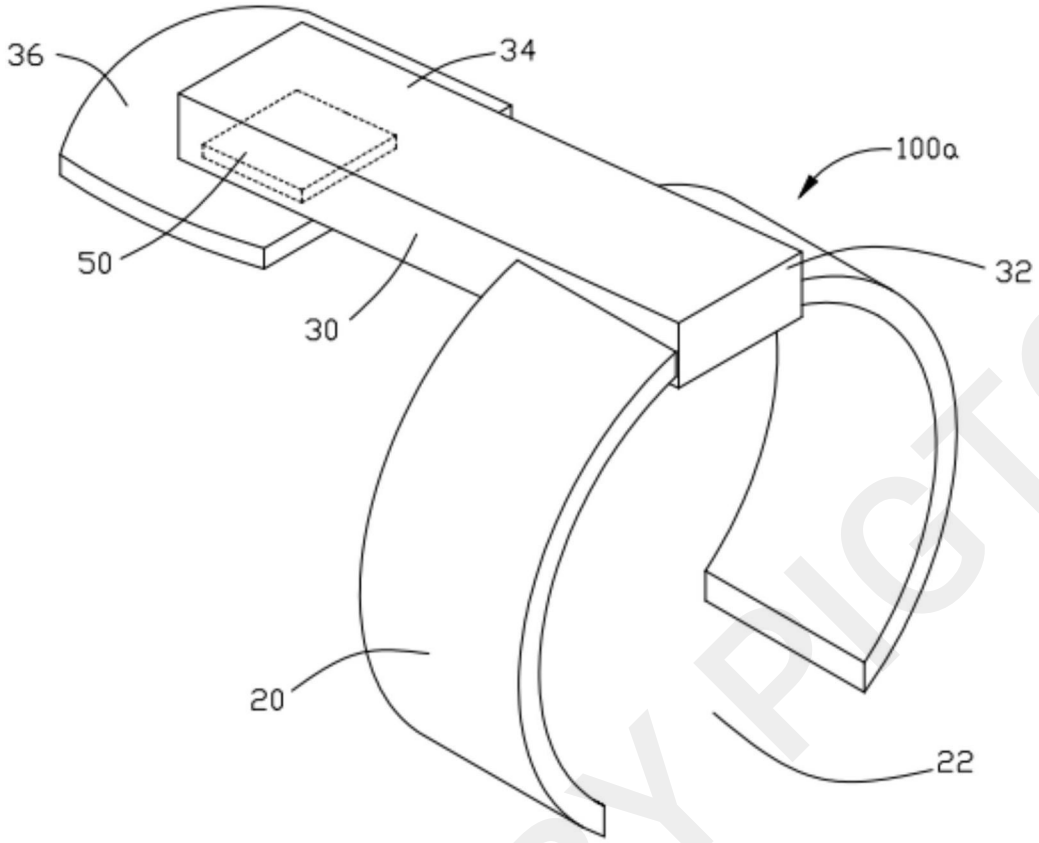

Figure 9

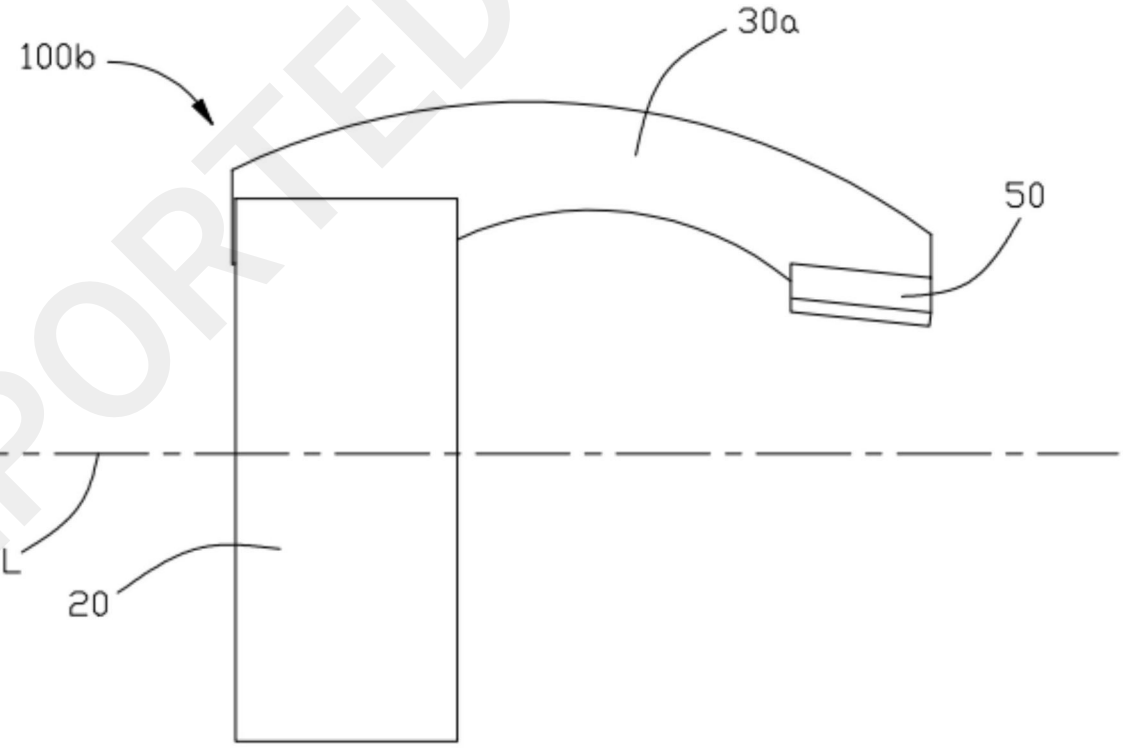

Figure 10

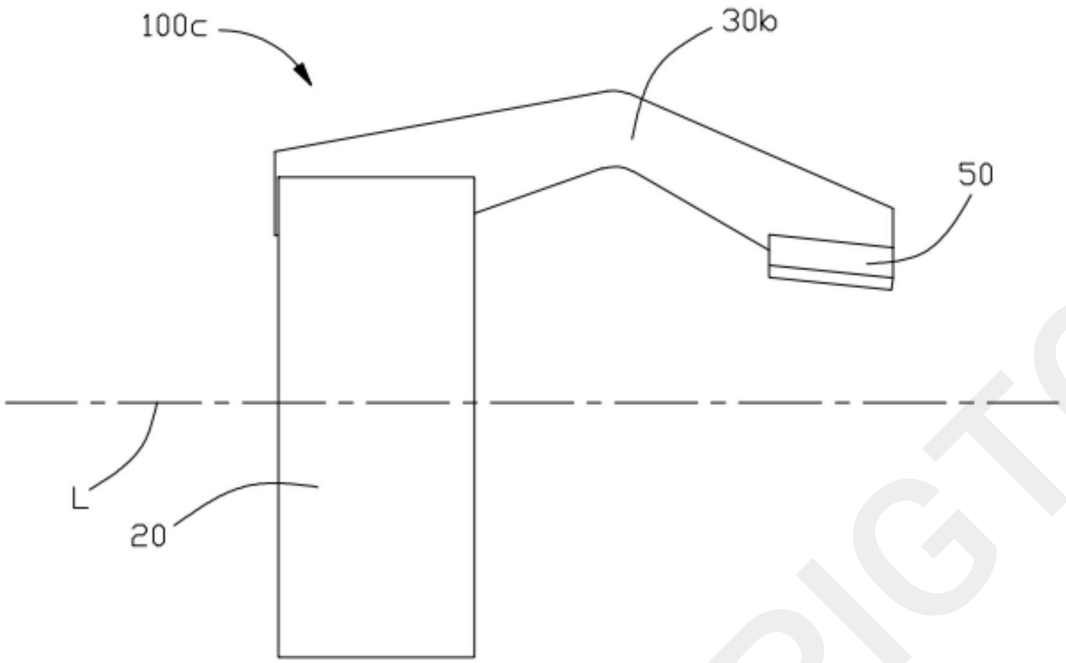

Figure 11

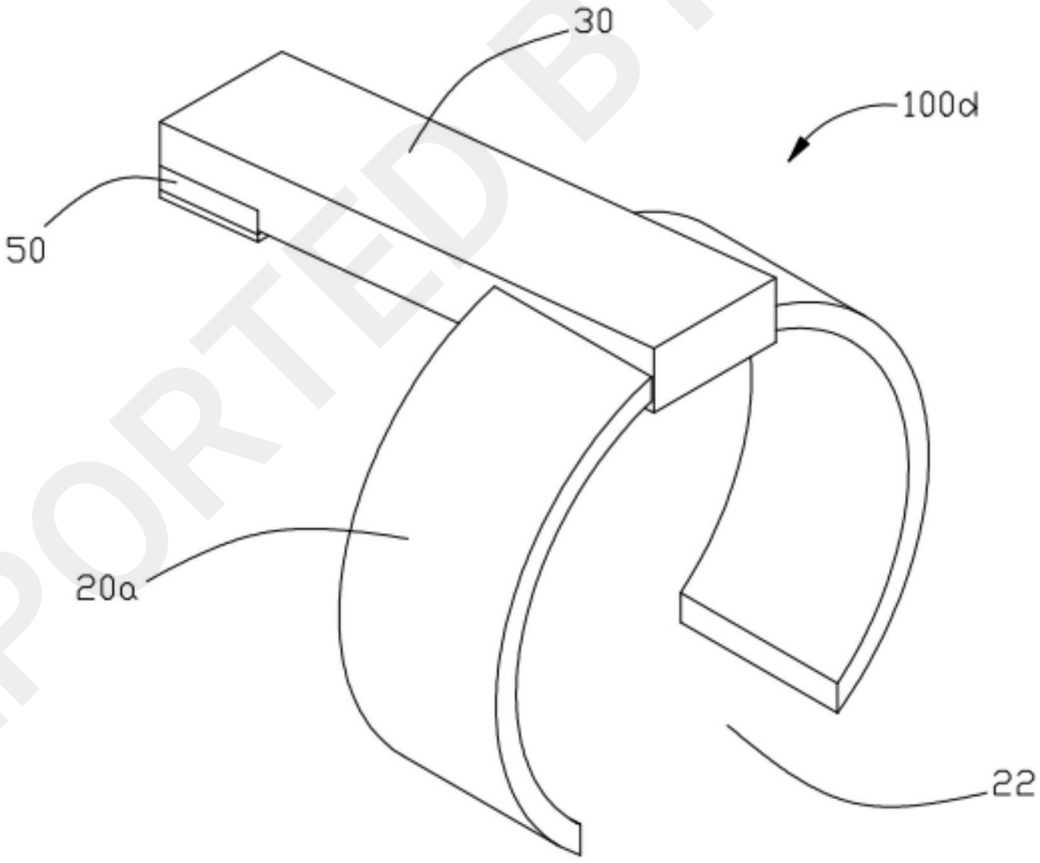

Figure 12

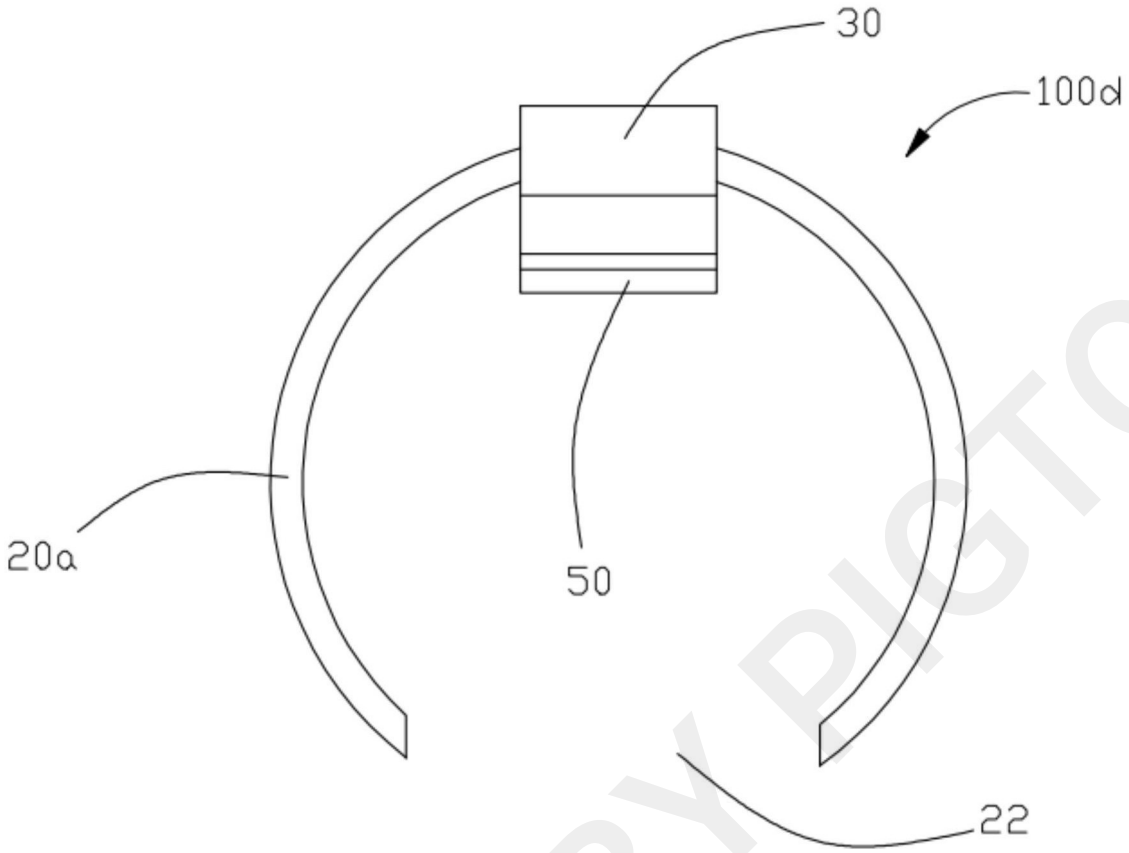

Figure 13

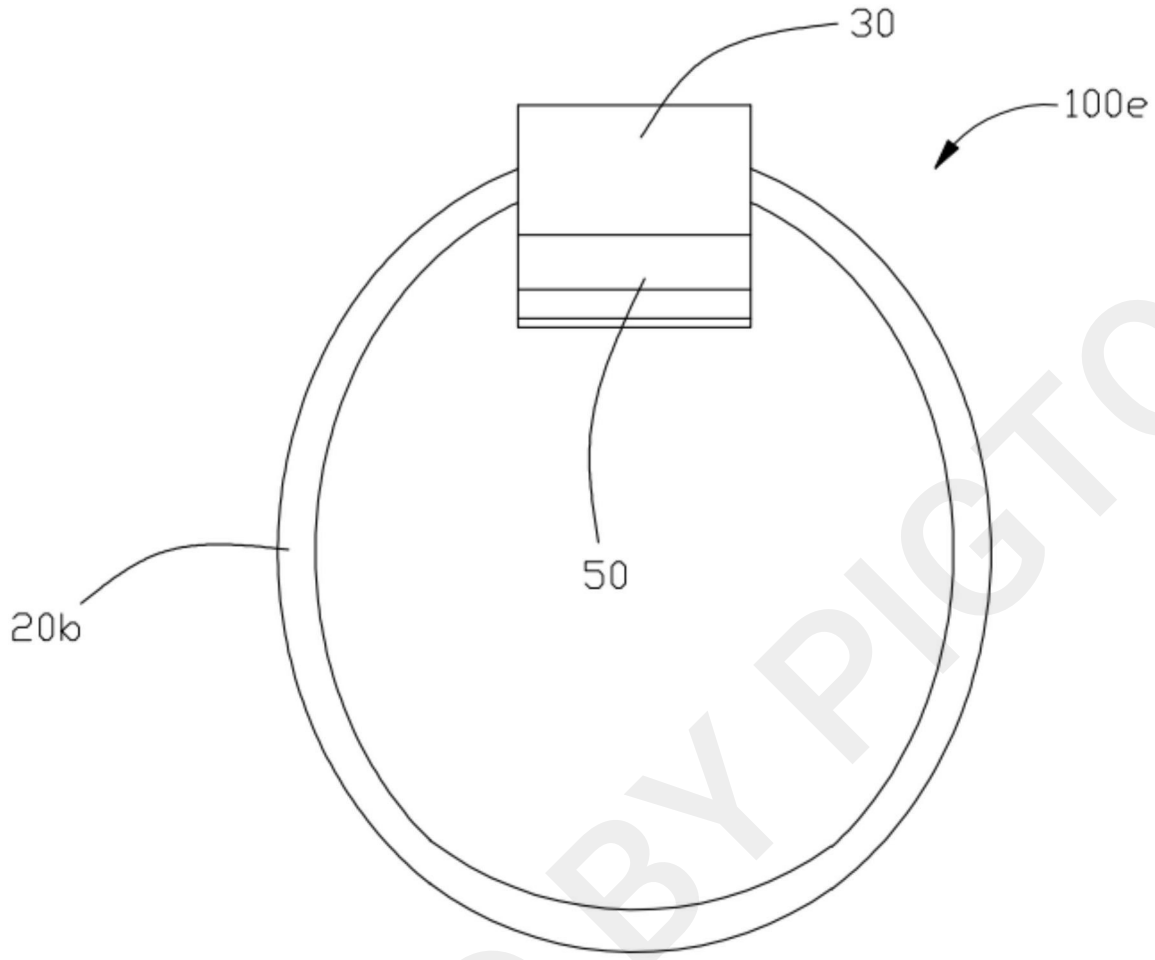

Figure 14