

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

OGMA, LLC,

Plaintiff,

v.

ACTIVISION BLIZZARD, INC.;
BENSUSSEN DEUTSCH & ASSOCIATES,
INC. D/B/A POWER A; GRIFFIN
INTERNATIONAL COMPANIES, INC.
D/B/A PSYCLONE; HARMONIX MUSIC
SYSTEMS, INC.; INTEC, INC.; JAKKS
PACIFIC, INC.; LEGO SYSTEMS, INC.;
MAD CATZ, INC.; NINTENDO OF
AMERICA, INC.; NYKO TECHNOLOGIES,
INC.; PARROT, INC.; PERFORMANCE
DESIGNED PRODUCTS LLC; PLAYHUT,
INC. D/B/A GOLIVE2; ROCKY
MOUNTAIN RADAR, INC.; SONY
COMPUTER ENTERTAINMENT
AMERICA, INC.; SOURCE AUDIO, LLC;
VTECH ELECTRONICS NORTH
AMERICA, LLC; WOWWEE GROUP LTD.;
WOWWEE USA, INC.,

Defendants.

CASE NO.:

**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

Plaintiff Ogma, LLC (“Ogma”) hereby alleges for its Complaint against defendants Activision Blizzard, Inc.; Bensussen Deutsch & Associates, Inc. D/B/A Power A; Griffin International Companies, Inc. D/B/A Psychlone; Harmonix Music Systems, Inc.; Intec, Inc.; Jakks Pacific, Inc.; Lego Systems, Inc.; Nintendo Of America, Inc.; Nyko Technologies, Inc.; Parrot, Inc.; Performance Designed Products LLC; Playhut, Inc. D/B/A Golive2; Rocky Mountain Radar, Inc.; Sony Computer Entertainment America, Inc.; Source Audio, LLC; Mad Catz, Inc.; Vtech Electronics North America, LLC; Wowwee Group Ltd.; Wowwee Usa, Inc., (collectively the “Defendants”) on personal knowledge as to its own actions and on information and belief as to the actions of others, as follows:

THE PARTIES

1. Plaintiff Ogma is a Texas limited liability company with a place of business at 3301 W. Marshall Ave., Suite 303, Longview, TX 75604.

2. On information and belief, Defendant Activision Blizzard, Inc. (“Activision”) is a Delaware corporation with a principal place of business at 3100 Ocean Park Boulevard, Santa Monica, CA 90405.

3. On information and belief, Defendant Bensussen Deutsch & Associates, Inc. dba Power A (“Power A”) is a Washington corporation with a principal place of business at 15525 Woodinville-Redmond Rd. NE, Woodinville, WA 98072.

4. On information and belief, Defendant Griffin International Companies, Inc. dba Psyclone (“Psyclone”) is a Minnesota corporation with a principal place of business at Butler Square, Suite 300C, 100 North 6th Street, Minneapolis, MN 55403.

5. On information and belief, Defendant Harmonix Music Systems, Inc. (“Harmonix”) is a Delaware corporation with a principal place of business at 625 Massachusetts Avenue, 2nd Floor, Cambridge, MA 02139.

6. On information and belief, Defendant Intec, Inc. (“Intec”) is a Delaware corporation with a principal place of business at 7600 Corporate Center Drive, Ste 400, Miami, FL 33126.

7. On information and belief, Defendant Jakks Pacific, Inc. (“Jakks”) is a Delaware corporation with its principal place of business at 22619 Pacific Coast Highway, Malibu, CA 90265.

8. On information and belief, Defendant LEGO Systems, Inc. (“LEGO”) is a Delaware corporation with a principal place of business at 555 Taylor Road, Enfield, CT 06082.

9. On information and belief, Defendant Mad Catz, Inc. (“Mad Catz”) is a Delaware corporation with a principal place of business at 7480 Mission Valley Road, Suite 101, San Diego, CA 92108.

10. On information and belief, Defendant Nintendo of America, Inc. (“Nintendo”) is a Washington corporation with a principal place of business at 4600 150th Avenue NE, Redmond, WA 98052.

11. On information and belief, Defendant Nyko Technologies, Inc. (“Nyko”) is a California corporation with a principal place of business at 1990 Westwood Blvd., 3rd Floor, Los Angeles, CA 90025.

12. On information and belief, Defendant Parrot, Inc. (“Parrot”) is a New York corporation with a principal place of business at 28446 Franklin Road, Southfield, MI 48034.

13. On information and belief, Defendant Performance Designed Products LLC (“Performance Designed”) is a California corporation with a principal place of business at 14144 Ventura Blvd., Suite 200, Sherman Oaks, CA 91423.

14. On information and belief, Defendant Playhut, Inc. dba GoLive2 (“GoLive2”) is a California corporation with a principal place of business at 368 Cheryl Lane, City of Industry, CA 91789.

15. On information and belief, Defendant Rocky Mountain Radar, Inc. (“Rocky Mountain”) is a Colorado corporation with a principal place of business at 6469 Doniphan Dr., El Paso, TX 79932.

16. On information and belief, Defendant Sony Computer Entertainment America, Inc. (“Sony”) is a Delaware corporation with a principal place of business at 919 East Hillsdale Blvd., Foster City, CA 94404.

17. On information and belief, Defendant Source Audio, LLC (“Source Audio”) is a Delaware corporation with a principal place of business at 120 Cummings Park, Woburn, MA 01801.

18. On information and belief, Defendant VTech Electronics North America, LLC (“VTech”) is a Delaware corporation with a principal place of business at 1155 W. Dundee, Suite 130, Arlington Heights, IL 60004.

19. On information and belief, Defendant WowWee Group Ltd. (“WowWee”) is a Hong Kong corporation with a principal place of business at Energy Plaza, 3F, 92 Granville Road, T.S.T. East, Hong Kong. On further information and belief, Defendant WowWee USA, Inc. (“WowWee USA”) is a Delaware corporation with a principal place of business at 5963 La Place Court, Suite 207, Carlsbad, California 92008. WowWee and WowWee USA will be referred to herein individually and collectively as the “WowWee Defendants”.

JURISDICTION AND VENUE

20. This action arises under the patent laws of the United States, Title 35 of the United States Code, §§ 271 and 281, *et seq.* because each of the Defendants has committed acts of patent infringement within the United States and this judicial district. Accordingly, this Court has subject matter jurisdiction of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

21. Personal jurisdiction and venue are proper in this Court pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b), in that the defendants are subject to personal jurisdiction in this district. At a minimum, each of the defendants has delivered infringing products into the stream of commerce with the expectation that they will be purchased by consumers in Texas.

THE '947 PATENT

22. On January 3, 1989, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 6,150,947 (“the ’947 Patent”), entitled “Programmable Motion-Sensitive Sound Effects Device,” to James Michael Shima. A copy of the ’947 Patent is attached to the Complaint as Exhibit A.

23. By reason of an assignment dated January 25, 2011, Plaintiff Ogma owns all rights, title and interest in the ’947 Patent.

FIRST CAUSE OF ACTION **(Infringement of the ’947 Patent)** **(35 U.S.C. § 271)**

24. Plaintiff repeats and incorporates by reference each of the allegations contained in Paragraphs 1 through 22 above, and further alleges as follows:

25. On information and belief, without a license or permission from Plaintiff, Defendant Activision has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, several examples of Activision's infringing products are the Rapala Pro Bass Fishing, the Tony Hawk: Ride, the Tony Hawk: Shred, the Guitar Hero III, and related family of products. Activision's infringement of the '947 Patent has caused substantial damage to Plaintiff.

26. On information and belief, without a license or permission from Plaintiff, Defendant GoLive2 has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, several examples of GoLive2's infringing products are the Stix 200, the Stix 400, and related family of products. GoLive2's infringement of the '947 Patent has caused substantial damage to Plaintiff.

27. On information and belief, without a license or permission from Plaintiff, Defendant Psyclone has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Psyclone's infringing products is the Strike with Fishing Rod Controller. Psyclone's infringement of the '947 Patent has caused substantial damage to Plaintiff.

28. On information and belief, without a license or permission from Plaintiff, Defendant Harmonix has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Harmonix's

infringing products is the Rock Band 3 Fender Mustang Pro-Guitar. Harmonix's infringement of the '947 Patent has caused substantial damage to Plaintiff.

29. On information and belief, without a license or permission from Plaintiff, Defendant Intec has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Intec's infringing products is the Intec Nintendo Wii Wave Remote. Intec's infringement of the '947 Patent has caused substantial damage to Plaintiff.

30. On information and belief, without a license or permission from Plaintiff, Defendant Jakks has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, several examples of Jakks's infringing products are the Disney Fairies/Sleeping Beauty (Motion Controller) TV Game, the Ultimotion Swing Zone Sports, the Ultimotion Playhouse Disney, Jakks Pacific TV Games Motion Video Game, and the related family of products. Jakks's infringement of the '947 Patent has caused substantial damage to Plaintiff.

31. On information and belief, without a license or permission from Plaintiff, Defendant LEGO has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of LEGO's infringing products is the LEGO Mindstorms NXT (MS1040 accelerometer sensor). LEGO's infringement of the '947 Patent has caused substantial damage to Plaintiff.

32. On information and belief, without a license or permission from Plaintiff, Defendant Mad Catz has infringed, induced others to infringe, and/or contributorily infringed,

literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Mad Catz's infringing products is the Mad Catz Wii Remote Controller. Mad Catz's infringement of the '947 Patent has caused substantial damage to Plaintiff.

33. On information and belief, without a license or permission from Plaintiff, Defendant Nintendo has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Nintendo's infringing products is the Wii System. Nintendo's infringement of the '947 Patent has caused substantial damage to Plaintiff.

34. On information and belief, without a license or permission from Plaintiff, Defendant Nyko has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Nyko's infringing products is the Wand. Nyko's infringement of the '947 Patent has caused substantial damage to Plaintiff.

35. On information and belief, without a license or permission from Plaintiff, Defendant Parrot has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Parrot's infringing products is the AR. Drone. Parrot's infringement of the '947 Patent has caused substantial damage to Plaintiff.

36. On information and belief, without a license or permission from Plaintiff, Defendant Performance Designed has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Performance Designed's infringing products is the AfterGlow Remote. Performance Designed's infringement of the '947 Patent has caused substantial damage to Plaintiff.

37. On information and belief, without a license or permission from Plaintiff, Defendant Power A has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Power A's infringing products is the POWER A Pro Pack Mini. Power A's infringement of the '947 Patent has caused substantial damage to Plaintiff.

38. On information and belief, without a license or permission from Plaintiff, Defendant Rocky Mountain has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Rocky Mountain's infringing products is the K.A.T. TRAXX. Rocky Mountain's infringement of the '947 Patent has caused substantial damage to Plaintiff.

39. On information and belief, without a license or permission from Plaintiff, Defendant Sony has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Sony's

infringing products is the PlayStation Move Motion Controller. Sony's infringement of the '947 Patent has caused substantial damage to Plaintiff.

40. On information and belief, without a license or permission from Plaintiff, Defendant Source Audio has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of Source Audio's infringing products is the Hot Hand. Source Audio's infringement of the '947 Patent has caused substantial damage to Plaintiff.

41. On information and belief, without a license or permission from Plaintiff, Defendant VTech has infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of VTech's infringing products is the V.Smile Motion Active Learning System. VTech's infringement of the '947 Patent has caused substantial damage to Plaintiff.

42. On information and belief, without a license or permission from Plaintiff, the WowWee Defendants have infringed, induced others to infringe, and/or contributorily infringed, literally or under the doctrine of equivalents, one or more claims of the '947 Patent. Defendant did so by importing, making, using, offering to sell, and/or selling products and devices that embody and/or practice the patented invention. Without limitation, one example of WowWee's infringing products is the Robopanda. The WowWee Defendants' infringement of the '947 Patent has caused substantial damage to Plaintiff.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Ogma prays for relief as follows:

A. Declaring that the Patent-in-Suit is valid and enforceable, and that each Defendant has infringed one or more claims of the Patent-in-Suit;

B. Awarding Plaintiff damages in an amount adequate to compensate Plaintiff for each defendant's infringement, in accordance with 35 U.S.C. § 284; and

C. Granting such other and further relief as this Court may deem just and appropriate.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff Ogma, LLC demands a trial by jury of this action.

Dated: February 3, 2011

RESPECTFULLY SUBMITTED,

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Attorneys for Plaintiff
OGMA, LLC

Exhibit A



US006150947A

United States Patent [19]
Shima

[11] **Patent Number:** **6,150,947**
 [45] **Date of Patent:** **Nov. 21, 2000**

- [54] **PROGRAMMABLE MOTION-SENSITIVE SOUND EFFECTS DEVICE**
- [76] Inventor: **James Michael Shima**, 173 Mohawk Cir., Superior, Colo. 80027
- [21] Appl. No.: **09/391,791**
- [22] Filed: **Sep. 8, 1999**
- [51] **Int. Cl.⁷** **G08B 25/08**
- [52] **U.S. Cl.** **340/692; 84/609; 446/175**
- [58] **Field of Search** 340/692, 669, 340/670, 671, 686.1, 689, 691.3, 539, 384.1, 384.5, 384.6, 384.7; 446/175; 84/609

5,984,810 11/1999 Frye et al. 473/455

Primary Examiner—Jeffery A. Hofsass
Assistant Examiner—Daniel Previl
Attorney, Agent, or Firm—Watts, Hoffmann, Fisher & Heinke, Co., L.P.A.

[57] **ABSTRACT**

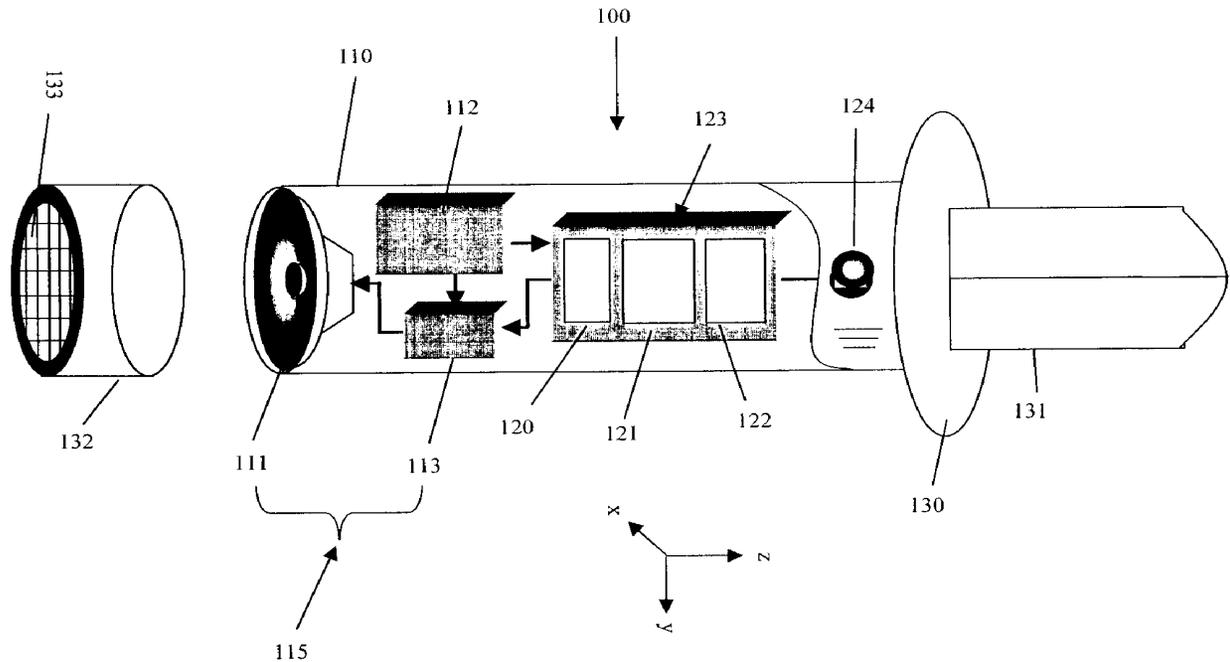
A programmable sound effects device which utilizes a motion-sensitive mechanism for selecting unique sound effects. The device is comprised of an electronic motion-sensitive actuator, a sound effect storage media for storing a plurality of predetermined sound effects, and a playback mechanism for audibly emitting the motion-activated sound effects. This device is designed to be used with amusement and entertainment type products such as toys, games, dolls, and props, with exemplary uses in toy swords, drumsticks, magic wands, and the like. A preferred embodiment is comprised of a unit which is physically incorporated into the handle of a toy sword. As the user moves the toy sword in a predefined manner, the motion-sensitive actuator senses the motion and plays out a plurality of unique sound effects as a function of the user's movements. The motion-detection algorithm which triggers the different sound effects is programmable. In another embodiment, the device is contained within a single housing unit that is worn on the user's body. This embodiment is well suited for many toys, props, games, and the like that do not have any sound effects capability but would benefit from such capability.

[56] **References Cited**

U.S. PATENT DOCUMENTS

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5,484,316	1/1996	Poirier .	
5,647,787	7/1997	Raviv et al.	446/175
5,648,753	7/1997	Martin .	
5,920,024	7/1999	Moore	84/609

20 Claims, 6 Drawing Sheets



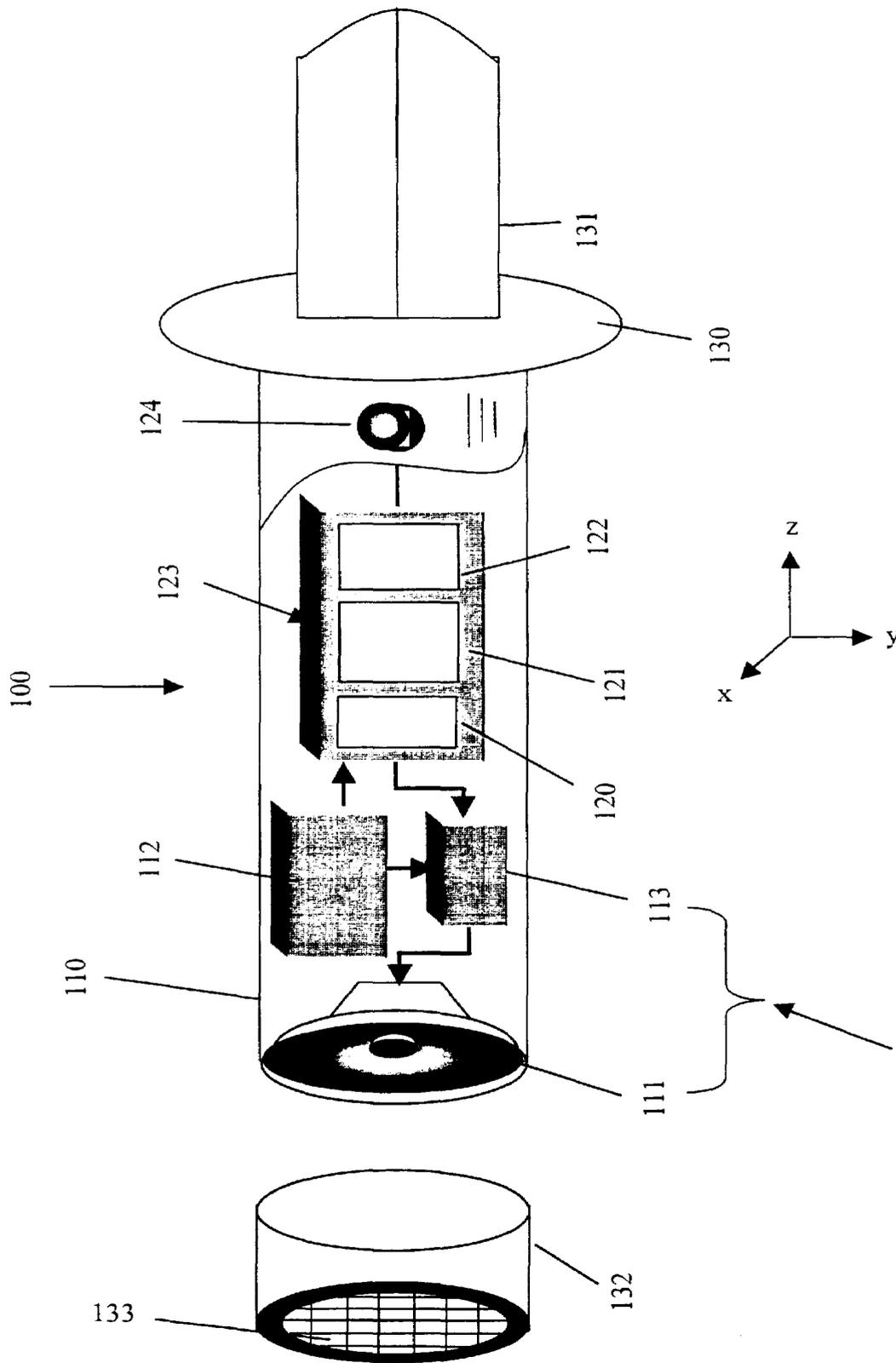


Fig. 1

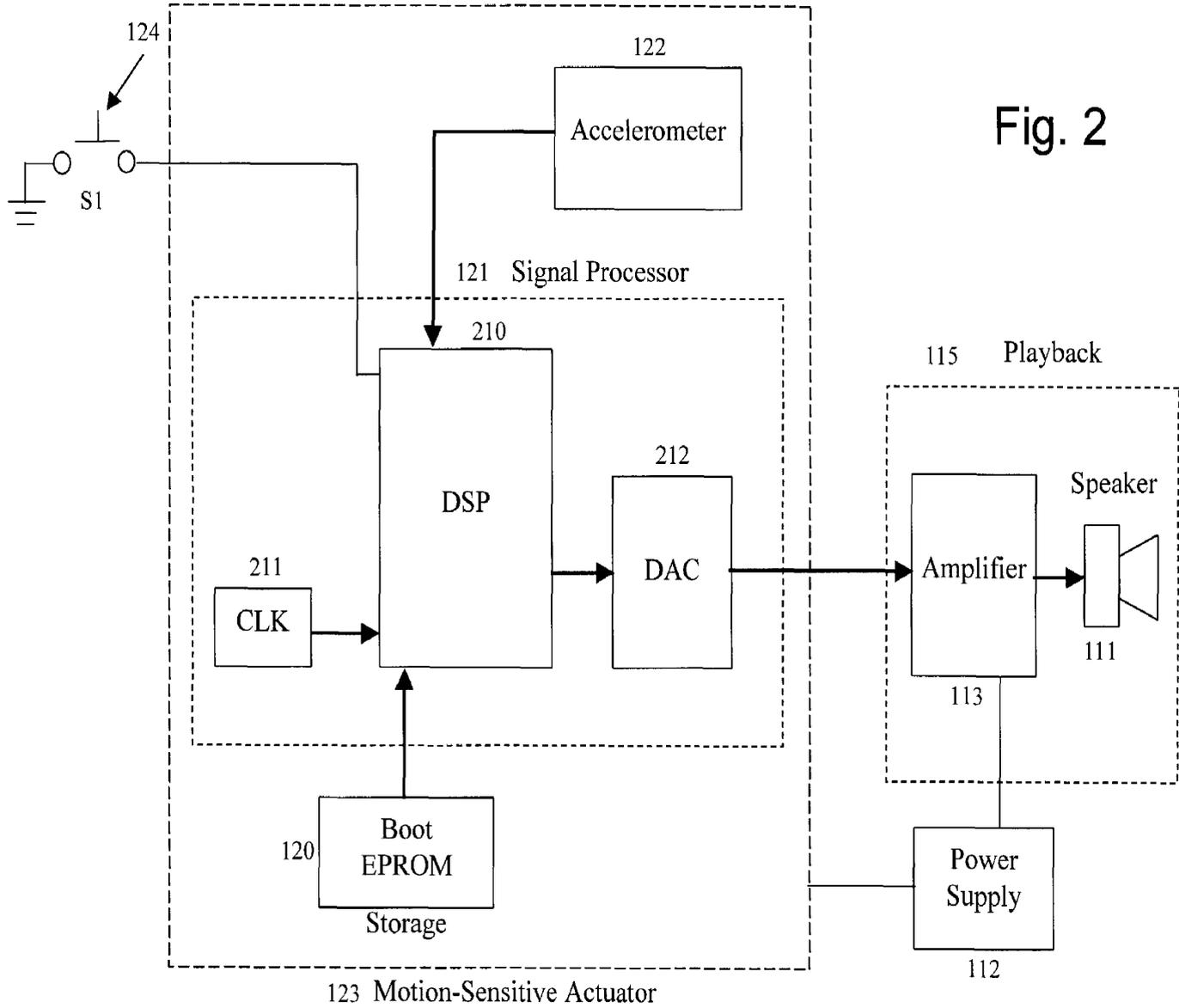


Fig. 2

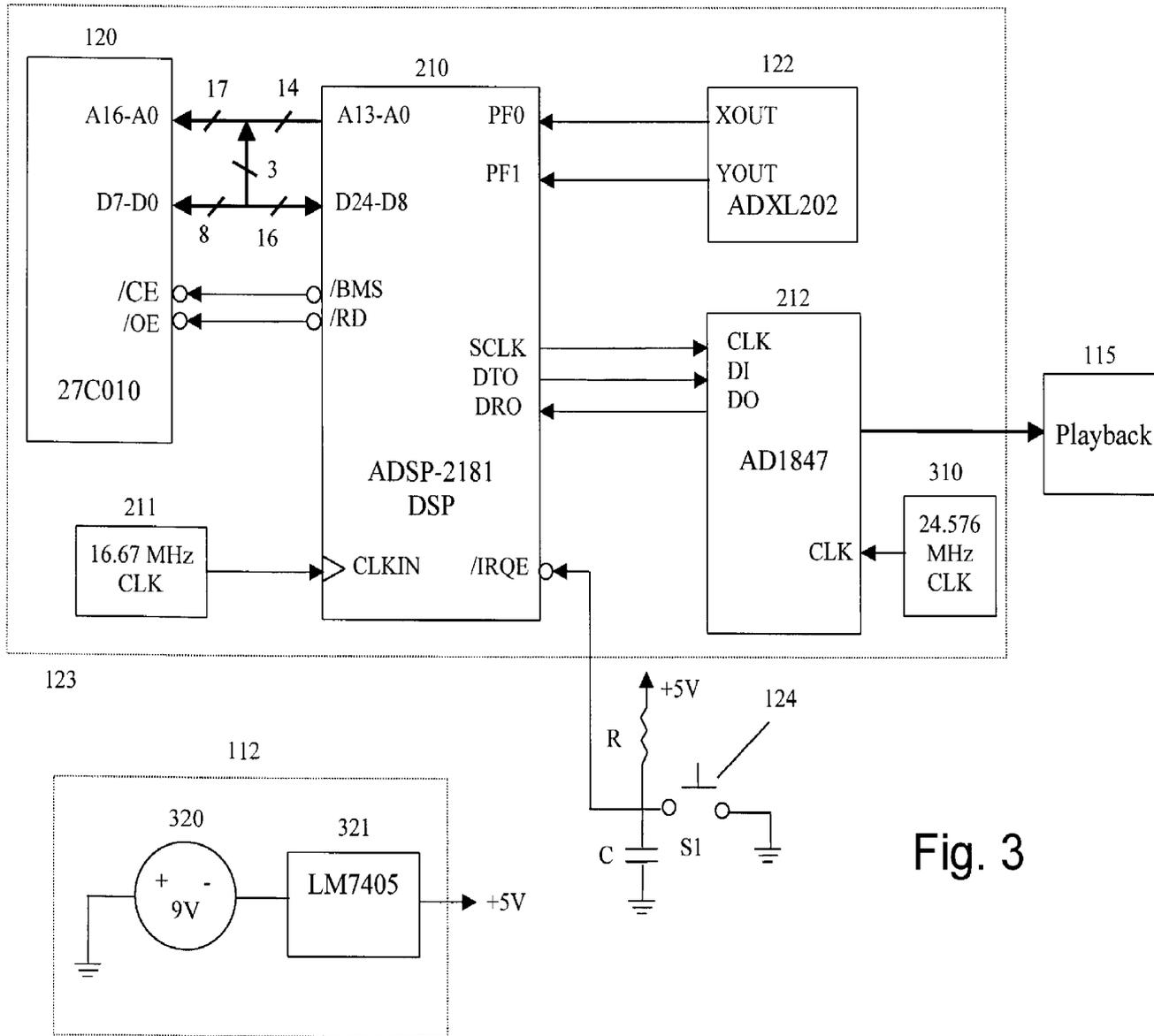


Fig. 3

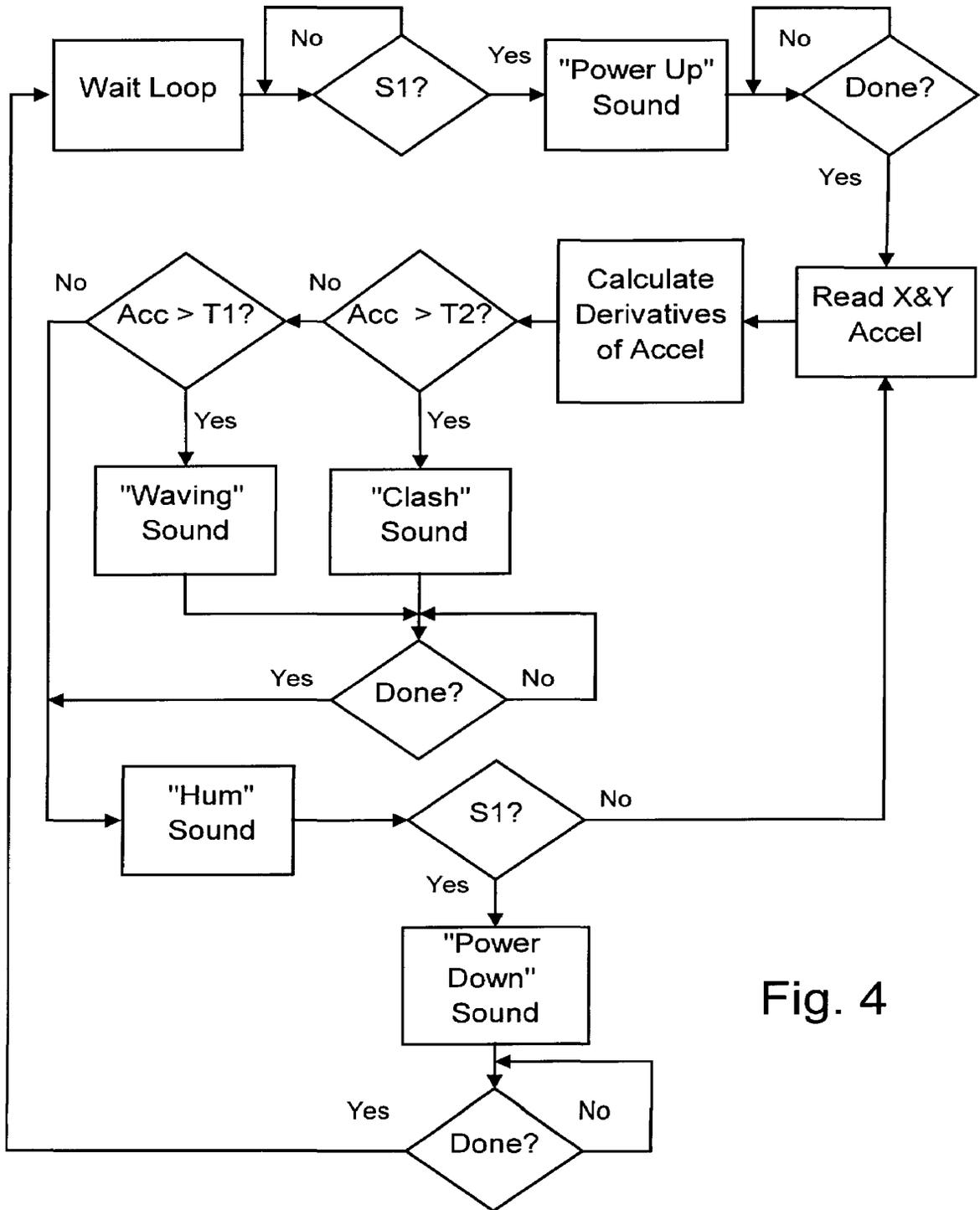


Fig. 4

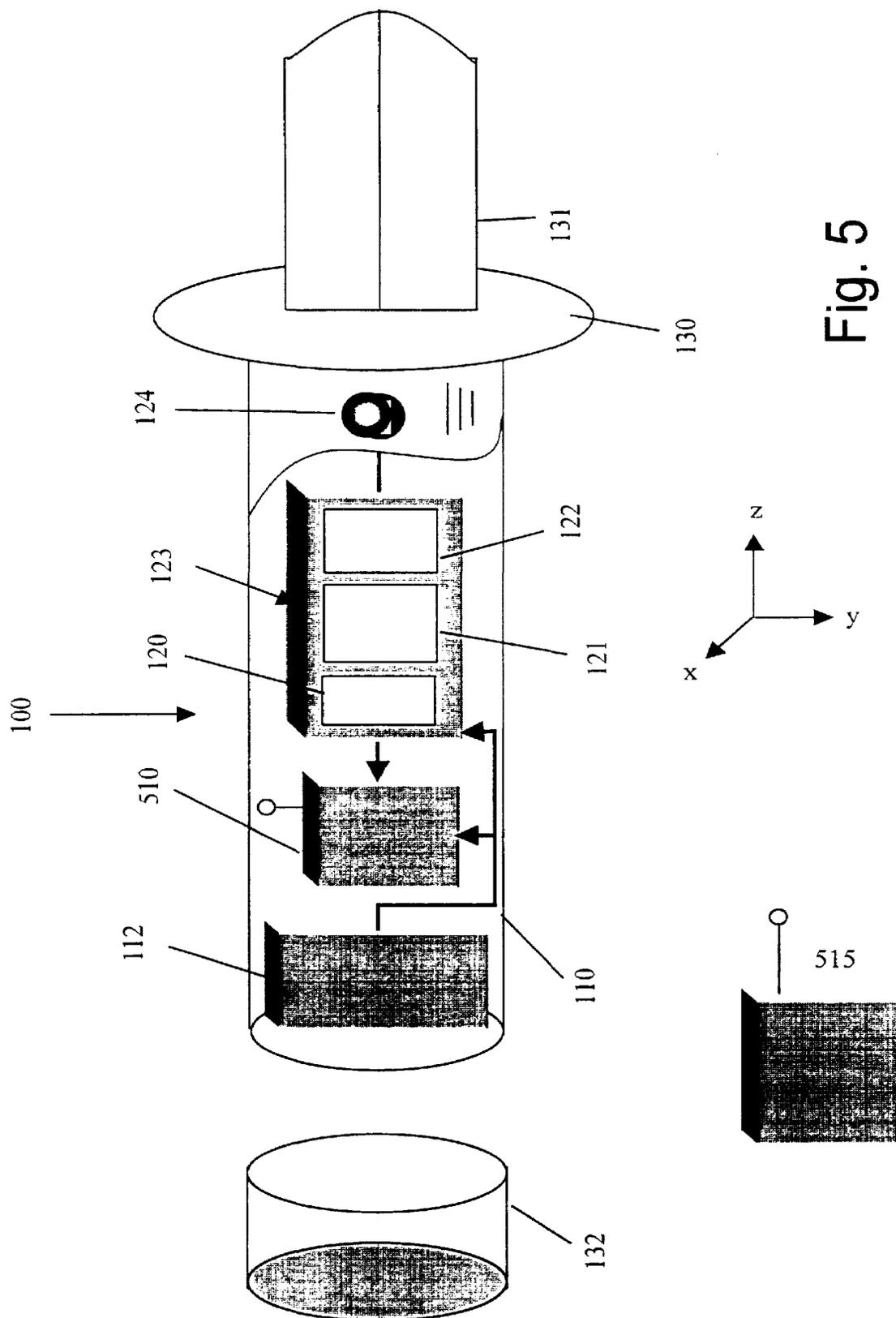


Fig. 5

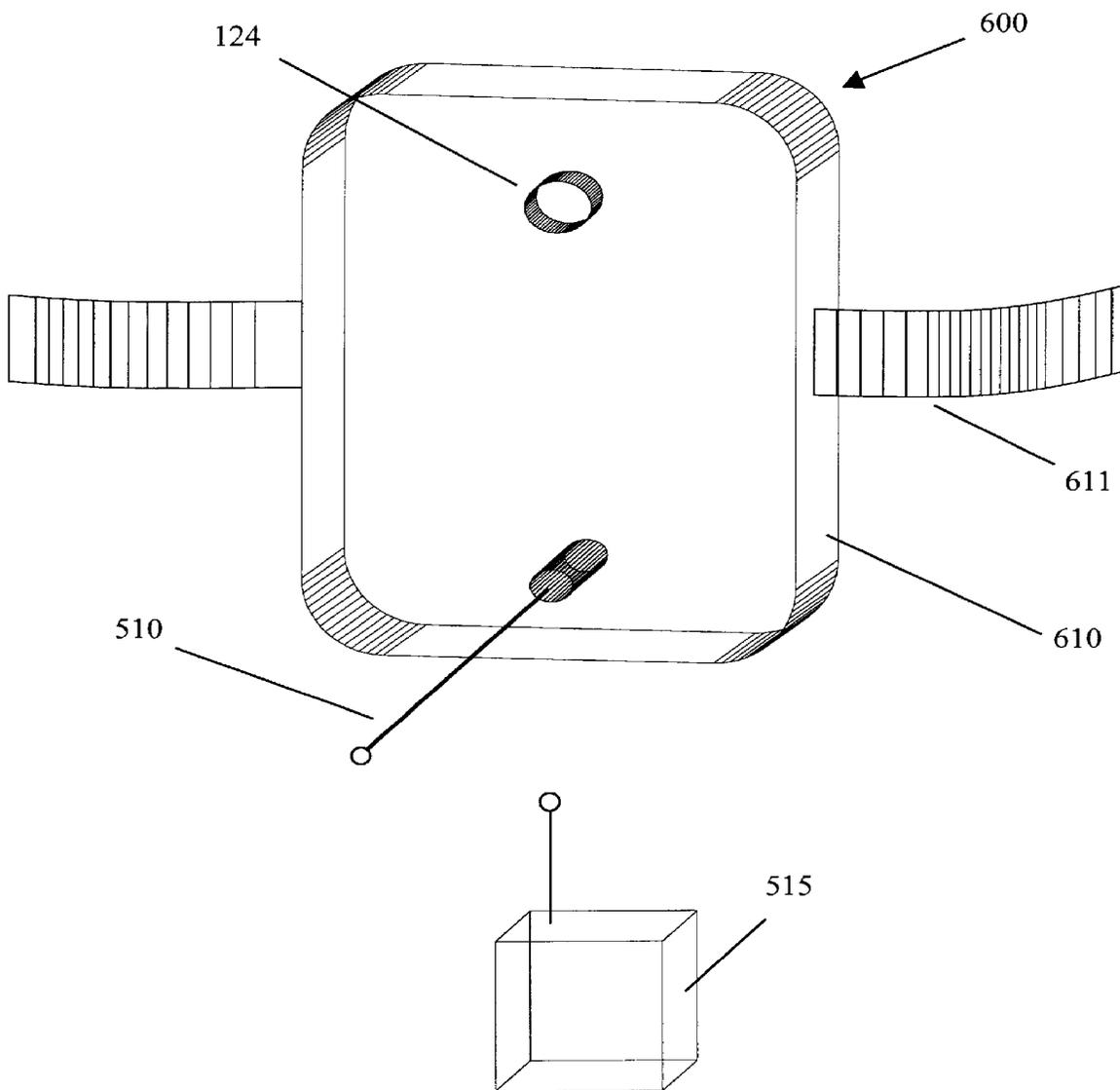


Fig. 6

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PROGRAMMABLE MOTION-SENSITIVE SOUND EFFECTS DEVICE

BACKGROUND—FIELD OF INVENTION

This invention relates to sound effects devices, and more particularly to a programmable sound effects device that is capable of producing interactive sound effects based on motion.

BACKGROUND—DESCRIPTION OF PRIOR ART

There are a plethora of sound effect devices that are incorporated into toys, dolls, games and the like. Typically, these sound effects devices add some amusement quality to the toy, but they do not give the user a true interactive environment in which to play. Particularly, toys that offer some synchronized sound effects that are directly related to the motion of the toy or the user's own body creates a more realistic play environment.

There exist several proposals that address different designs for sound effects devices. For example, an interchangeable, wrist-worn sound effects device that can be used with a myriad of existing toys. The wrist-worn device is to be used with new or existing toys that do not have sound effects capabilities and to give the user a broader play environment by utilizing different sound effects. However, the user would need to locate and press buttons residing on a wrist band in order to play the different sound effects. So, the added realism of play when using this device is questionable since the user must continually press separate buttons for each sound effect the user would like to hear at a particular instance in time. A synchronized sound device to be used in a toy sword has also been proposed. The toy sword would be waved about, which in turn would produce an oscillatory electrical signal to trigger a sound generator synchronized with the flexing of the toy sword. The oscillating sound effects would be produced via a piezoelectric effect from a transducer attached to the sword blade. This proposal does offer some synchronization of sound with waving the sword about, however, the sound generated from the transducer would be simplistic and this device does not give the user the freedom to play specific sounds corresponding to specific movements. Furthermore, the proposal was for a fixed design which could not be reprogrammed to handle different types of motion and play different sound effects.

The prior art does not address a programmable sound effects device which can be designed into new toys and also used with existing toys, provide high-quality, interactive sound effects based on the user's own motion, and provide specific sound effects for specific types of movements. It would be desirable to have a sound effects device with the flexibility of activating sound effects for different types of motion which include, but not limited to, waving, striking, jabbing, and the like. Another desirable property of such a sound effects device would be the capability of being programmable and thereby able to recognize different types of motion which initiate each sound effect. Thus, the toy would play preprogrammed, individual, and unique sound effects that correspond to the toy being waved up or down, striking another object, swung over the head, shaken vigorously, and the like.

SUMMARY

This device comprises, in accordance with the present invention, a programmable motion-sensitive sound effects

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device comprising a motion-sensitive actuator, a sound effect storage means, and a playback means.

OBJECTS AND ADVANTAGES

The primary object of the invention is to provide a motion-sensitive device that allows the user to generate interactive, realistic sound effects based on and corresponding to the user's movement.

Another object of the invention is to generate high-quality, motion-related sound effects that allow the user to perceive a more realistic and natural environment.

A further object of the invention is to provide a device that allows the user to correlate specific movements with realistic sound effects during play without having to stop play.

Yet another object of the invention is to provide a device that allows the user to correlate specific movements with realistic sound effects during play without having to provide user intervention unrelated to play in order to generate the sound effect.

Still another object of the invention is to provide a plurality of motion-sensitive sound effects by using a programmable storage media, with each media storing a unique set of sound effects.

Another object of the invention is to provide a plurality of motion-sensitive sound effect applications by using a programming media, with each media storing a unique set of program instructions.

Another object of the invention is to provide a device that contains programming means to generate interactive sound effects based on different types of movement.

Yet another object of the invention is to provide a device that can be designed into a manufacturer's existing line of toys, dolls, books, and the like that lack the capability of producing interactive sound effects.

Still another object of the invention is to provide a device that can be designed into a manufacturer's line of new toys, dolls, books, and the like to include the capability of producing interactive, motion-based sound effects.

A further object of the invention is to provide a device that allows the user to play with any toy, doll, book, or the like and add interactive sound effects when there existed no sound effects previously.

Another object of the invention is to provide a cost effective device since only one device is needed for a plurality of sound effects.

Another object of the invention is to provide a cost effective device since only one device is needed for a plurality of motion-based sound effects applications.

Yet another object of the invention is to provide a device that is lightweight and small enough to be physically incorporated into a toy, doll, game, or the like.

A further object of the invention is to provide a device that is lightweight and small enough to be physically worn by the user.

Still yet another object of the invention is to provide a device that is portable and can be powered by a small, replaceable power source.

Other objects and advantages of the present invention will become apparent from the following descriptions, taken in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

DRAWING FIGURES

FIG. 1 is a partial sectional view of the first embodiment of the present invention.

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FIG. 2 is a basic block diagram showing the components comprising the first embodiment of FIG. 1.

FIG. 3 is a more detailed schematic block diagram showing the basic circuitry employed in FIG. 2.

FIG. 4 is a flow chart which describes the program code employed in the preferred embodiment of the present invention.

FIG. 5 is a partial sectional view of a second embodiment of the present invention.

FIG. 6 is a perspective view of a third embodiment of the present invention.

The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.

DESCRIPTION

FIGS. 1-4—Preferred Embodiment

Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner. Referring now to FIG. 1, the amusement device of the present invention is generally designated as 100. Specifically, as a first embodiment of the present invention, a toy sword handle 110 is shown with a sword blade 131, a hilt guard 130, and a hilt cap 132. The handle 110, hilt guard 130, and hilt cap 132 are fabricated from plastic or metal. The blade 131 is made of plastic or other material that is known in the art to create a rigid, non-brittle, and safe blade for play. The blade 131 may also be semi-transparent or translucent and coated with a light-sensitive material in order to give it a glowing effect.

The electronic components of the present embodiment are encased in the handle 110. These electronic components comprise a motion-sensitive actuator 123, a playback 115, and a power supply 112.

The playback 115 includes an amplifier 113 and a speaker 111. The motion-sensitive actuator 123 is enabled and disabled via a button 124. Button 124 is a momentary pushbutton, slide switch, or other type of switch that has at least one pole. The motion-sensitive actuator is comprised of an accelerometer 122, a signal processor 121, and a storage 120. The accelerometer 122 converts any detected motion into an electrical signal. The resulting electrical signal from accelerometer 122 is transferred to the signal processor. The signal processor monitors the incoming motion data from the accelerometer and determines, via a predetermined algorithm, whether or not the detected motion meets a predefined criteria for playing a certain sound effect. This predefined criteria is pre-programmed into the signal processor and can be a simple or complex set of rules, equations, or logic that base their decision on the incoming motion detected by the accelerometer. As a simple example, the signal processor 121 can play one unique sound effect if it detects significant motion, such as waving, in the x direction, while another unique sound effect can be played if significant motion is detected in the y direction, respectively. As a consequence, different sound effects can be played as a function of the direction of the detected motion as well as the magnitude of the detected motion, a feature not present in the prior art.

A plurality of sound effects and program instructions for signal processor 121 are stored in the storage 120. In the

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present embodiment, the storage 120 consists of an EPROM chip. By re-programming the EPROM with different program instructions for signal processor 121, different motion-detecting algorithms can be implemented using a single realization of the present embodiment; yet another advantage over the prior art.

Again referring to FIG. 1 of the present embodiment, when signal processor 121 subsequently determines that the detected motion from the accelerometer meets the criteria for playing a particular sound effect, it sends out an analog signal representative of the chosen sound effect to the playback 115. The amplifier 113 receives the analog signal from the motion-sensitive actuator, amplifies the analog signal, and sends the amplified signal to the speaker 111 for auditory playback.

The motion-sensitive actuator and the playback are powered by the power supply 112, which is also encased in the handle 110.

The hilt cap 132 attaches to the end of the sword handle 110 and can have an open or closed bottom. In the present embodiment, the bottom of hilt cap 132 is open and is covered with a protective screen 133 to protect the speaker. The hilt cap in this embodiment will allow sound to emanate freely out of the handle from the speaker. The power supply is also replaceable by removing the hilt cap and the speaker from the sword handle.

Referring now to FIG. 2, a block diagram is shown of the motion-sensitive actuator 123 and the supporting components. The accelerometer 122 is a solid-state measurement device which converts dynamic and static accelerations into electrical signals that are directly proportional to acceleration. These electrical signals are sent to the signal processor 121 for analysis. The signal processor is comprised of a digital signal processor (DSP) 210, a master clock 211, and a digital-to-analog converter (DAC) 212. Alternatively, DSP 210 can be replaced with a standard microcontroller known in the art that is capable of analyzing data from the accelerometer. The master clock supplies DSP 210 with a synchronous clock to run program instructions which analyze the incoming signals from the accelerometer. The program instructions and prerecorded sound effects are both stored in the storage 120, which is comprised of an EPROM chip. The EPROM loads the data into the DSP upon applying power to the device.

While the button 124, denoted Si, stays in the "off" position, the DSP remains in a low-power mode to conserve battery life. When S1 is placed into the "on" position, the DSP begins running its internal program to analyze incoming signals from the accelerometer. Upon the DSP analyzing data and subsequently deciding that a sound effect is to be played based on the incoming motion measurements, it sends out digital sound effect samples representative of the selected sound effect to DAC 212.

The DAC is comprised of a digital-to-analog converter chip which converts these digital sound effects samples that are representative of the selected sound effect into an analog signal. This analog signal is then passed to the playback 115. The amplifier 113 boosts the analog signal representative of the selected sound effect and then sends the resulting amplified signal to the speaker 111. The speaker converts the analog signal into an audible sound indicative of the chosen sound effect, which the user can readily hear.

The power supply 112 powers the playback and motion-sensitive actuator. The power supply is comprised of a voltage regulator and replaceable battery capable of powering the motion-sensitive actuator and the playback.

Now turning to FIG. 3, a more detailed diagram of the components that comprise the motion-sensitive actuator and the power supply are shown. In the present embodiment, the

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signal processor is implemented by using off-the-shelf components. All of the components, data sheets, and relative connections for completing a necessary PCB board can be found by using an off-the-shelf DSP evaluation board, the ADDS-21xx ez-kit lite. The ADDS-21xx ez-kit lite is manufactured by Analog Devices, Inc., and is an evaluation DSP board that contains the DSP, the DAC, the EPROM, and the power supply. The ADDS-21xx ez-kit lite board is a standard prototyping tool that allows one skilled in the art to develop real-time DSP assembly code software. The software for the preferred embodiment of the invention was developed using this board.

The DSP is an Analog Devices ADSP-2181 operating at 33 MHz. The DSP has 16 k words of internal data RAM and 16 k words of internal program RAM. External master clock 211 runs at 16.67 MHz and is upconverted to 33 MHz in the DSP. The DAC is comprised of an Analog Devices AD1847 SoundPort running with an external DAC clock 310 at 24.576 MHz. The AD1847 has a programmable sampling frequency for its onboard ADC and DAC that is controlled via the DSP. The AD1847 is connected to the DSP via synchronous serial port 0, denoted SPORT0. The storage 120 is comprised of a 27C010 EPROM which is connected to the DSP via eight data lines and seventeen address lines. The data lines (D7–D0) of the EPROM are connected to eight data lines (D8–D15) of the DSP. The seventeen address lines of the EPROM are comprised of a combination of the fourteen address lines (A13–A0) and three data lines (D18–D16) of the DSP. Upon powerup, the DSP sets the /BMS line low and loads in the data and program instructions from the EPROM into its own internal memory. After loading is complete, the DSP jumps to the beginning line of program code and begins program execution.

The accelerometer 122 is an Analog Devices ADXL202+/-2 g dual axis digital output accelerometer chip. This accelerometer is different than any motion actuator used in the prior art in the fact that it measures precise acceleration in two coordinate axes, which is used by the DSP to classify different types of movement, such as waving versus striking, jabbing versus blocking, and the like. The ADXL202 also outputs a pulse-width modulated digital signal that is proportional to the acceleration experienced by the chip in each respective axis. It is able to measure static acceleration, such as gravity, and also dynamic accelerations for each axis. The digital signals outputted by the ADXL202, XOUT and YOUT, are connected to the DSP via external port pins PF0 and PF1, respectively. The x-axis output is connected to the PF0 port pin, and the y-axis output is connected to the PF1 port pin on the DSP. Thus, the DSP is responsible for polling the port pins and decoding the pulse-width modulated digital signal via a software decoding routine. This novel approach eliminates the need for a dual-channel ADC that would typically be needed to convert analog acceleration signals into digital values for the DSP.

The button 124 is connected to the external interrupt line /IRQE on the DSP and debounced via resistor R and capacitor C. Any type of debouncing circuit known in the art can be used in conjunction with the button to provide a clean signal to /IRQE. Every time the button is pressed, the /IRQE line is pulled low, and the program running internally on the DSP responds by jumping to the appropriate /IRQE interrupt subroutine, in which the DSP then enables or disables itself, depending on its previous state, in order to monitor incoming acceleration data from the accelerometer. The power supply 112, also shown in FIG. 3, is comprised of a nine-volt battery 320 and a five-volt regulator LM7405 321. The five-volt regulator also resides on the ADDS-2181 ez-kit lite DSP board, and the only external component supplied is the nine-volt battery.

In accordance with an important feature of the present invention, there is shown in FIG. 4 a flowchart of the

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program code that is contained in EPROM 120 and executed by DSP 210. The program monitors the motion data from the accelerometer 122 and determines whether a sound effect should be played in accordance with a predetermined set of rules. The software flowchart in FIG. 4 is described in connection with the present embodiment, it is not intended to limit the scope of the alternative programs, methods, and techniques that are contained within the spirit of the present invention.

Referring now to FIG. 4, when power is applied to the device, the DSP loads the program code from the EPROM into its own internal memory, then jumps to the starting program code segment and begins running the program internally. At the beginning of the program, the DSP initializes all relevant variables and sits in a “wait” loop until button S1 is placed into the “on” position. When button S1 is pressed in this manner, the signal processor reacts by sending out a “power up” sound effect to the playback. This gives the user the realism that the toy sword has been “activated” and has come to life. The signal processor waits until the sound has been completely played, and afterwards it begins to monitor acceleration measurements delivered by the accelerometer. The DSP decodes the incoming acceleration digital data in the x and y axes, respectively. Once it receives a valid acceleration measurement for each axis direction, the derivative of acceleration in each direction is calculated. By computing the derivative of acceleration, it can be determined how vigorously the sword is being waved in each of the accelerometer axes. Furthermore, since the accelerometer is capable of measuring static acceleration, by computing the derivative this static acceleration is removed, and the resulting measurement only contains the acceleration components due to dynamic motion, such as waving, striking, and the like.

The derivative measurements are then compared next to two thresholds, a high (T2) and low (T1) threshold for both the x and y axes. If either of these axis measurements surpasses the T1 threshold, then there is a significant dynamic acceleration typical of the user waving the sword handle around. Thus, a “waving” sound effect is played. The waving sound effects are unique to the x and y axes, respectively. That is, if T1 is surpassed in the x direction only, one type of waving sound effect is played. If T1 is surpassed in the y direction only, another type of waving sound effect is played. If T1 is surpassed in both directions, then yet another type of waving sound effect is played, for example, the two unique waving sound effects for both axes can be added together by the DSP before sent to the playback. In a similar manner, if either axis derivative measurement surpasses the T2 threshold, then this is indicative of a large dynamic acceleration, typical of sudden stops of the sword handle or the sword blade striking another object. Thus, if either of the axis derivative measurements surpasses T2, then a corresponding “clashing” sound is played in accordance with the rules set forth above and as shown in FIG. 4. If the measurements do not surpass any of the thresholds, then no “waving” or “clashing” sounds are played since the detected motion is considered minimal.

While the sword is “on”, the DSP also plays out a constant “hum” sound. This gives the user the added realism that the toy sword is “active”. The hum can be an ambient energy hum or similar sound effect, an example being the sound emanated from an activated lightsaber in the popular Star Wars movies. The hum sound effect is mixed in real time with any other sound effect currently being played out by the DSP, as set by the flowchart in FIG. 4. So, if there is no “waving” or “clashing” sound effects playing, then the user will only hear the “hum” sound effect while the sword is on. If a “waving” or “clashing” sound effect is presently being played, the “hum” sound effect is mixed with the currently

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outputted sound effect. After mixing the sound effects together, the DSP sends out the resulting mixed sound to the playback.

At the end of the main program loop, the program checks to see whether button **S1** has been pressed again. If button **S1** has not been pressed, the program continues monitoring acceleration data from the accelerometer and playing out sound effects based on the flowchart shown in FIG. 4. If button **S1** has been pressed again, this is indicative of “deactivating” the sword. In this case, the DSP sends out a “power down” sound effect to the playback, which gives the user the added realism that the sword is now turned off. After the entire “power down” sound effect is played, the DSP returns to a power-down mode and again waits for button **S1** to be pressed. In this state, no sound effects are played out and the program once again waits for button **S1** to be turned on.

Table 1 contains program instructions in object code for the storage **120** on the ADDS-21xx ez-kit lite kit. The object code is listed in S-record format. The program implements the spirit of the algorithm specified in FIG. 4., with the acceleration measurements on the PF1 port pin decoded exclusively, corresponding to y-axis acceleration measurements. The sound effects for each event as specified in FIG. 4 can be chosen to correlate the specific movements to each unique sound effect outputted.

While the program flowchart shown in FIG. 4 and object code shown in Table 1 is representative of the preferred embodiment, anyone skilled in the art will recognize that many other motion-based algorithms can be readily implemented by writing new software for the DSP and storing the program into the storage. Since the storage also stores the predetermined sound effects, these sound effects can be changed as well to suit the specific application. This process requires no changes to the hardware described above and results in a programmable motion-sensitive sound effects device.

FIG. 5—Second Embodiment

Referring now to FIG. 5, a second embodiment of the present invention is shown. In this embodiment of the invention, the playback **115** is replaced by a transmitter **510**. The transmitter is a device that is encased within the sword handle **110** and transmits the analog signal received from the motion-sensitive actuator to a remote receiver **515**. In this embodiment of the invention, the amplifier and speaker are no longer necessary and can be eliminated from the handle. Likewise, the power supply supplies the necessary power to the transmitter. The transmitter uses a signal from a family of signals comprised of radio frequency signals, ultrasonic signals, or infrared signals. The receiver is comprised of components that are capable of decoding the signal emanated by the transmitter, amplifying the decoded signal, and audibly emitting the decoded and amplified signal. The decoded signal is an analog signal representative of the selected sound effect. As an example, the transmitter **510** is encased in the handle and is a typical FM transmitter known in the art. The remote receiver **515** is a typical FM radio receiver, which effectively gives the user a wireless link between the toy sword and the remote radio receiver.

FIG. 6—Third Embodiment

A third embodiment of the present invention is demonstrated in FIG. 6. This embodiment is comprised of a body-worn sound effects unit **600** which is attached to user's body and can be used with existing toys or props. The body-worn unit is comprised of a housing **610** and a band **611**. The band is designed for the wrist or ankle and is attached to the housing. The band allows the user to wear the

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housing comfortably. The electronics in the body-worn unit are comprised of the same components as the second embodiment and operates in the same manner as the second embodiment. However, in this embodiment, the difference is that the user wears the body-worn sound effects unit which can be used in conjunction with any toy, game, doll, and the like. As the user moves in a predefined manner, the body-worn unit senses the motion and plays out unique sound effects as a function of the user's movements. Like the second embodiment, the sound effects based on the user's motion are transmitted by the transmitter to a remote receiver. This embodiment is advantageous to the user that has a plurality of toys, games, dolls, and the like that do not have sound effects capability, but would like to add sound effects capability to those toys, games dolls, and the like by using this one device. This embodiment adds further realism and provides an interactive environment in which the user can play with a plurality of preexisting toys, games, dolls, and the like.

Operation

The manner of using the illustrated embodiments are the same. When the button is pushed once so that it is placed into the “on” position, the motion-sensitive actuator is enabled. The device plays an “activation” sound effect, giving the realism that the device has become active. Also, a constant “hum” or other relevant sound effect is sent to the playback indicating to the user that the device is “active”. Subsequently, when the device is waved about in either the x-direction or y-direction, the resulting motion is detected by the motion-sensitive actuator. The motion-sensitive actuator analyzes the motion, and based on its internal motion-detection algorithm, it decides whether or not the resulting motion satisfies its requirements. If the motion does satisfy the requirements, the motion-sensitive actuator sends a unique sound effect that is representative of the detected motion to the playback. The playback audibly emits a signal indicative of the selected sound effect for the user to hear. As the user moves the device around, the device will continue to play out the motion-based sound effects until the button is pressed once more. Upon pressing the button, the constant “hum” sound is stopped and a “deactivating” sound effect is played, giving the added realism that the device is now inactive. In this mode, the motion-sensitive actuator is disabled and no sound effects are played. The motion-sensitive actuator then waits until the button is pressed again, and the program cycle is repeated.

Conclusion, Ramifications, and Scope of Invention

Accordingly, the reader will see that the motion-sensitive sound effects device of this invention provides a programmable, portable, and interactive sound effects solution that can be designed into new toys or used with preexisting toys, providing a more realistic and fulfilling play environment for the user.

While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims and their legal equivalents.

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- coordinate value axes and selecting a sound effect based on the calculated numerical values and;
- a playback for receiving a playback signal resulting from said sensed motion signal from said motion-sensitive actuator and emitting an audible sound in response to said playback signal.
2. The programmable motion-sensitive sound effects device as claimed in claim 1 wherein said motion-sensitive actuator further comprises
- a sound effect storage for storing at least one predetermined sound effect and wherein the function of the acceleration used to calculate the numerical values is a derivative of the acceleration in each of the coordinate axes.
3. The programmable motion-sensitive sound effects device as claimed in claim 2 wherein said signal processor comprises:
- a selected one of a digital signal processor and a micro-controller for analyzing said accelerometer digital signals,
- a memory storage for storing program instructions, and;
- a digital-to-analog converter for retrieving said stored sound effect and converting said stored sound effect into said playback signal for said playback.
4. The programmable motion-sensitive sound effects device as claimed in claim 2 wherein said sound effect storage comprises a memory chip for storing a plurality of predetermined sound effects.
5. The programmable motion-sensitive sound effects device as claimed in claim 2 further comprising:
- a power supply for providing voltage to said signal processor and said memory storage and said playback.
6. The programmable motion-sensitive sound effects device as claimed in claim 1 wherein said playback comprises an amplifier and a speaker.
7. The programmable motion-sensitive sound effects device as claimed in claim 1 wherein said device is used with a unit chosen from a family of units comprising toys, dolls, figurines, games and books.
8. The programmable motion-sensitive sound effects device of claim 1 wherein the digital signals output by the accelerometer are pulse-width modulated digital signals.
9. A programmable motion-sensitive sound effects device comprising:
- a motion-sensitive actuator for selecting a sound effect in response to a sensed motion of the device and producing a sensed motion signal indicative of the selected sound effect, the motion-sensitive actuator including:
- (a) an accelerometer measuring an acceleration of the sensed motion in each of two coordinate axes and outputting digital signals proportional to the acceleration in each of the two coordinate axes; and
- (b) a signal processor receiving the accelerometer digital signals, calculating a numerical value that is a function of the acceleration in each of the two coordinate value axes and selecting a sound effect based on the calculated numerical values and;
- a playback mechanism for receiving a playback signal resulting from said sensed motion signal from said motion-sensitive actuator and transmitting said playback signal to a receiver.
10. The programmable motion-sensitive sound effects device as claimed in claim 9 wherein said motion-sensitive actuator further comprises
- a sound effect storage for storing at least one predetermined sound effect and wherein the function of the acceleration used to calculate the numerical values is a derivative of the acceleration in each of the coordinate axes.

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11. The programmable motion-sensitive sound effects device as claimed in claim 10 wherein said signal processor comprises:
- a selected one of a digital signal processor and a micro-controller for analyzing said accelerometer digital signals,
- a memory storage for storing program instructions, and;
- a digital-to-analog converter for retrieving said stored sound effect and converting said stored sound effect into said playback signal for said playback.
12. The programmable motion-sensitive sound effects device as claimed in claim 10 wherein said sound effect storage comprises a memory chip for storing a plurality of predetermined sound effects.
13. The programmable motion-sensitive sound effects device as claimed in claim 10 further comprising:
- a power supply for providing voltage to said signal processor and said memory storage and said transmitter.
14. The programmable motion-sensitive sound effects device as claimed in claim 9 wherein said playback comprises a transmitter for converting said playback signal that is indicative of said sound effect into a transmission signal that is to be transmitted in the direction of said receiver.
15. The programmable motion-sensitive sound effects device as claimed in claim 14 wherein said transmitter is selected from a family of signals comprising radio frequency signals, ultrasonic signals, and infrared signals.
16. The programmable motion-sensitive sound effects device as claimed in claim 9 wherein said device is used with a unit chosen from a family of units comprising dolls, figurines, toys, games and books.
17. The programmable motion-sensitive sound effects device of claim 9 wherein the digital signals output by the accelerometer are pulse-width modulated digital signals.
18. A toy including a programmable sound effects device which utilizes a motion-sensitive mechanism for selecting different sound effects depending on a motion of the toy, the toy comprising:
- a) an electronic motion-sensitive actuator including a signal processing unit for analyzing motion of the toy and producing a sensed motion signal indicative of a selected sound effect, the motion-sensitive actuator including:
- (1) an accelerometer measuring an acceleration of sensed motion in each of two coordinate axes and outputting digital signals proportional to the acceleration in each of the two coordinate axes; and
- (2) a signal processor receiving the accelerometer digital signals, calculating a numerical value that is a function of the acceleration in each of the two coordinate value axes and selecting a sound effect based on the calculated numerical values;
- b) a sound effect storage media connected to the actuator for storing a plurality of predetermined sound effects and providing outputs in response to the sensed motion signal from the actuator;
- c) a digital-to-analog converter for producing analog signals in response to said sensed motion signal from the actuator and said outputs; and,
- d) a playback mechanism connected to the converter and comprised of an amplifier and speaker for emitting sound effects in response to said analog signals.
19. A motion responsive sound effects device for use with a toy comprising:
- a) an accelerometer for sensing motion and emitting outputs reflective of sensed motion in both x & y coordinate axes;

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- b) a storage component containing program instructions and prerecorded sound effects;
- c) a clock-controlled digital signal processor connected to the accelerometer and the storage component for emitting digital signals in response to said accelerometer outputs and outputs from the storage component, the signal processor receiving the accelerometer outputs, calculating a numerical value that is a function of the acceleration in each of the x & y coordinate axes and selecting one or more sound effects based on the calculated numerical values, the emitted digital signals representative of the one or more selected sound effects;
- d) a digital-to-analog converter connected to the processor for converting the digital signals to analog signals;

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- e) an amplifier connected to the converter for amplifying the analog signals;
- f) a speaker for emitting sounds in response to the amplified signals; and,
- g) a power supply connected to a selected one of the accelerometer, the component, the processor, the converter and the amplifier for powering the device.

20. The motion responsive sound effects device of claim 19 wherein the function of the acceleration used to calculate the numerical values is a derivative of the acceleration in each of the coordinate axes.

* * * * *

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

<p>I. (a) PLAINTIFFS</p> <p>(b) County of Residence of First Listed Plaintiff _____ (EXCEPT IN U.S. PLAINTIFF CASES)</p> <p>(c) Attorney's (Firm Name, Address, and Telephone Number) _____</p>	<p>DEFENDANTS</p> <p>County of Residence of First Listed Defendant _____ (IN U.S. PLAINTIFF CASES ONLY)</p> <p>NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.</p> <p>Attorneys (If Known) _____</p>
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II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

<input type="checkbox"/> 1 U.S. Government Plaintiff	<input type="checkbox"/> 3 Federal Question (U.S. Government Not a Party)
<input type="checkbox"/> 2 U.S. Government Defendant	<input type="checkbox"/> 4 Diversity (Indicate Citizenship of Parties in Item III)

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Citizen of Another State	<input type="checkbox"/> 2	<input type="checkbox"/> 2	Incorporated <i>and</i> Principal Place of Business In Another State	<input type="checkbox"/> 5	<input type="checkbox"/> 5
Citizen or Subject of a Foreign Country	<input type="checkbox"/> 3	<input type="checkbox"/> 3	Foreign Nation	<input type="checkbox"/> 6	<input type="checkbox"/> 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

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VI. CAUSE OF ACTION

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I. (a) Plaintiffs-Defendants. Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

(b) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

(c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".

II. Jurisdiction. The basis of jurisdiction is set forth under Rule 8(a), F.R.C.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.

United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here.

United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.

Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.

Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; federal question actions take precedence over diversity cases.)

III. Residence (citizenship) of Principal Parties. This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. Nature of Suit. Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section VI below, is sufficient to enable the deputy clerk or the statistical clerks in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.

V. Origin. Place an "X" in one of the seven boxes.

Original Proceedings. (1) Cases which originate in the United States district courts.

Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441. When the petition for removal is granted, check this box.

Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.

Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.

Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.

Multidistrict Litigation. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407. When this box is checked, do not check (5) above.

Appeal to District Judge from Magistrate Judgment. (7) Check this box for an appeal from a magistrate judge's decision.

VI. Cause of Action. Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553
Brief Description: Unauthorized reception of cable service

VII. Requested in Complaint. Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.

Demand. In this space enter the dollar amount (in thousands of dollars) being demanded or indicate other demand such as a preliminary injunction.

Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. Related Cases. This section of the JS 44 is used to reference related pending cases if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.