



A CHILD ACTIVITY SCHEDULING AND ALERTING SYSTEM.

FIELD OF THE INVENTION

The present invention relates generally to the field of alarm clock systems, and more particularly to a child activity scheduling and alerting system.

BACKGROUND OF THE INVENTION

Many parents find it difficult to coax a young child to wake up, to take a bath, to take a nap and to brush the teeth. Often parents have to shout or resort to various methods to get a child going. Furthermore, parents often have to repeatedly remind a child to start an activity. Using a traditional alarm clock is only useful for waking up a child, but it has less utility for reminding a child that it is time to take a bath or to brush the teeth.

Existing alarm clocks with some kind of remote controller include those taught in U.S. Patent No. 4,316,273 by Jetter, U.S. Patent No. 5,379,273 by Horinek and U.S. Patent No. 4,218,875 by Rothman. However, none of these teach the user how to schedule activity alerts and reminders for a young child.

Therefore, a need exists for a child activity scheduling and alerting system.



SUMMARY

According to the invention, there is provided a child activity scheduling and alerting system comprising a parental unit and at least one pediatric unit capable of establishing a bi-directional wireless communications link with the parental unit.

In one aspect of the present invention, the parental unit comprises a microcontroller, a transceiver, an input means, and a display means. The transceiver, the input means, and the display means are coupled to the microcontroller. The display means functions to display the time status and the settings status. The pediatric unit comprises a control unit, a transceiver, and at least one alerting unit. The transceiver and the alerting unit are coupled to the control unit. In use, the parental unit is operable by the parent to program and schedule activity alerts for a child to remind the child to start certain activities. Some examples of these activities are: bathing, eating, drinking, reading and napping. The parental unit is able to generate and transmit a plurality of signals to the pediatric unit. These signals comprise unique schedule notification alert signals and command signals. The signals are processed by the pediatric unit to activate at least one of its alerting units. In use, the parental unit, according to a schedule determined by the parent, generates and transmits signals to a pediatric unit, and the pediatric unit upon receipt of the signals, processes and interprets the signals and activates at least one alerting unit. Each alerting unit functions to alert the child. Each alerting unit is selected from the group comprising a motion translating unit, a speaker unit, and a vibration generating unit. The motion translating unit when activated produces motion to alert the child. The speaker unit when activated generates sound to alert the child. The vibration generating unit when activated vibrates to alert the child.

In another aspect of the system, the parental unit comprises a microcontroller, a transceiver, an input means, a speaker means and a display means. The speaker means is capable of generating sounds to alert the parent.

In yet another aspect of the system, the pediatric unit comprises a control unit, a transceiver, at least one alerting unit, and a response means. The transceiver, the alerting unit, and the response means are coupled to the control unit. The child is able to respond to the alert by operating or actuating the response means to generate a response signal for transmission to the parental unit, and to terminate the alert at the pediatric unit. In one embodiment, the response means is a switch. Other suitable examples for the response means include a pull-cord switch and a push-button switch.

Another aspect of the system provides a pediatric unit having three alerting units. One alerting unit is a speaker unit that is capable of playing back a pre-recorded message to remind the child to commence a specific activity. Another alerting unit is a motion translating unit capable of producing motion. A third alerting unit is a vibration generating unit capable of producing vibrations. This pediatric unit can be generally disposed within a soft toy, such as a toy bear, thus creating a moving and talking toy. Luckily, children are often fascinated by fancy gadgets and toys. Young children are capable of developing a relationship with an interactive toy, and are thus willing to take instructions from a soft toy. Children are usually happier and quicker to cooperate with a moving and talking toy. This embodiment has the advantage that it serves to amuse the child, and can encourage the child to cooperate and commence the desired activity.

The object of the invention is to provide something new.

The invention has the advantage of allowing a parent to schedule activity reminders and alerts for a young child.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that changes may be made in the specific construction illustrated and described within the scope of the appended claims. Those skilled in the art will readily ascertain, however, that the invention is capable of other embodiments and of being practiced and carried out in various ways. In this respect, the details of construction disclosed herein, and the arrangements of the components set forth in the following description and appended drawings are for illustrative purposes, only, and are not intended to be limiting in scope. The various aspects which characterize the invention will be better understood and appreciated when consideration is given to the following detailed description, and to the accompanying drawings, in which:

FIG.1 is a block diagram of the child activity scheduling and alerting system according to the present invention;

FIG. 2 is a block diagram of one embodiment of the parental unit of the present invention;

FIG. 3 is a block diagram of the elements of one embodiment of the pediatric unit of the present invention;

FIG. 4 is a block diagram of the elements of another embodiment of the pediatric unit of the present invention;

FIG. 5 is a block diagram of the elements of another embodiment of the parental unit of the present invention;

FIG. 6 is a block diagram of the elements of yet another embodiment of the pediatric unit of the present invention; and

FIG. 7 is a block diagram of the elements of yet another embodiment of the pediatric unit of the present invention.

DETAILED DESCRIPTION OF THE VARIOUS EMBODIMENTS

The inventors have given a non-limiting description of several embodiments of the present invention, to which many changes may be made without deviating from the spirit of the invention. While this invention has been described with reference to illustrative embodiments, this description is not intended to be construed in a limiting sense. Various modifications and combinations of the various embodiments as well as other embodiments of this invention will be apparent of a person skilled in the art upon reference to this description.

Furthermore, other changes such as those which are aesthetic, or those which include the substitution of other materials as they become available which perform substantially the same function in substantially the same manner with substantially the same result without deviating from the spirit of this invention may be made. It is therefore contemplated that the appended claims cover any such modifications and/or embodiments that fall within the true scope of the present invention.

The various features of novelty which characterize the system of the present invention are pointed out with particularity in the claims appended hereto and forming a part of this disclosure.

For most parents, getting a young child to commence daily activities is difficult, time-consuming and frustrating. The present invention relates generally to the field of alarm clocks, and more particularly to a child activity scheduling and alerting system.

According to the present invention, there is provided a child activity scheduling and alerting system comprising a parental unit 30 and at least one pediatric unit 50 capable of establishing a bi-directional wireless communications link with the parental unit 30. FIG.1 is a block diagram of the child activity scheduling and alerting system showing a parental unit 30 and a plurality of pediatric units 50. The parental unit 30 is programmable by the parent to schedule activity alerts for a child.

Referring to FIG.2, in one embodiment, the parental unit 30 comprises a microcontroller 32, a transceiver 34, an input means 38, and a display means 40. The transceiver 34, the input means 38, and the display means 40 are coupled to the microcontroller 32. The display means 40 functions to display the time status and the settings status. In use, the parental unit 30 is programmable by the parent to schedule activity alerts for a child. Some examples of these activities are bathing, eating, drinking, reading and napping.

Referring to FIG.3, in one embodiment, the pediatric unit 50 comprises a control unit 52, a transceiver 54 and at least one alerting unit 56. The transceiver 54 and the alerting unit 56 are coupled to the control unit 52.

The parental unit 30 is able to generate a plurality of signals. These signals comprise unique schedule notification alert signals and command signals. In use, the parental unit 30, according to a schedule determined by the parent, generates and transmits signals to the pediatric unit 50, and the pediatric unit 50 upon receipt of the signals, processes and interprets the signals and activates the alerting unit 56.

Each alerting unit 56 functions to alert the child. Each alerting unit 56 is selected from the group comprising a motion translating unit 62, a speaker unit 64, and a vibration generating unit 66. The motion translating unit 62 when activated produces motion to alert the child. The speaker unit 64 when activated generates sound to alert the child. The vibration generating unit 66 when activated vibrates to alert the child.

Referring to FIG.4, in another embodiment, the pediatric unit 50 comprises a control unit 52, a transceiver 54, at least one alerting unit 56, and a response means 58. The transceiver 54, the alerting unit 56, and the response means 58 are coupled to the control unit 52. The child is able to respond to the alert by operating or actuating the response means 58 to generate a response signal for transmission to the parental unit 30, and to terminate the alert at the pediatric unit 50. In one embodiment, the response means 58 is a switch. Other suitable examples for the response means 58 include a pull-cord switch and a push-button switch.

As illustrated in FIG.5, in another embodiment, the parental unit 30 comprises a microcontroller 32, a transceiver 34, an input means 38, a speaker means 36 and a display means 40. The transceiver 34, the input means 38, the speaker means 36 and the display means 40 are coupled to the microcontroller 32. The display means 40 functions to display the time status and the settings status. The speaker means 36 is capable of generating sounds to alert the parent.

Each pediatric unit 50 can have more than one alerting units 56. The embodiment illustrated in FIG. 6, shows a pediatric unit 50 having three alerting units 56. One alerting unit 56 is a speaker unit 64 that is capable of generating sounds to remind the child to commence a specific activity. Another alerting unit 56 that is a motion translating unit 62 that is able of producing motion. A third alerting unit 56 is a vibration generating unit 66 capable of producing vibrations. In yet another aspect,

the alerting unit 56 is a speaker unit 64 that is capable of playing back a pre-recorded message to remind the child to commence a specific activity. This pediatric unit 50 can be generally disposed within a soft bear toy (as illustrated in FIG. 1), thus creating a moving and talking toy bear. This embodiment has the advantage that it serves to amuse the child, and can encourage the child to cooperate and commence the desired activity.

In one embodiment of the parental unit 30, the display means 40 is selected from the group comprising a LED display and a LCD display. The term “LED display” is used herein to describe a display having a plurality of LEDs.

In another embodiment of the parental unit 30, the display means 40 comprises a LED display having a plurality of LEDs; and a plurality of indicator lights. The LED display functions for showing the time. The indicator lights functions to indicate the modes of the parental unit 30. The modes of the parental unit 30 comprise a “settings” mode and a “normal” mode. When the parental unit 30 is in a “settings” mode, the parent is able to program and schedule the activity alerts.

In another embodiment of the parental unit 30, the input means 38 comprise switches.

In yet another embodiment of parental unit 30, the speaker means 36 is a sound card having recording and playback capabilities. One advantage of this embodiment is that it allows a parent to record and playback voice files.

As illustrated in FIG. 7, in another embodiment of pediatric unit 50, the pediatric unit 50 further comprises a time display means 60. A suitable example for the time display means 60 is a LED display. The term “LED display” is used herein to describe a display having a plurality of LEDs. One advantage of this embodiment is that the time display means 60 enables the pediatric unit 50 to function as a clock.

In another embodiment of the pediatric unit 50, the speaker unit 64 is a sound card having recording and playback capabilities. One advantage of this embodiment is that it allows a parent to record and playback voice files.

As illustrated in FIG. 1, in another embodiment of the system, the system has a plurality of pediatric units 50, each pediatric unit 50 having an unique identification code. This allows the parental unit 30 to send different signals to different pediatric units 50.

In another aspect of the invention, one pediatric unit 50 can be generally disposed within a soft toy. The phrase "generally disposed within" is used herein to mean that each element can be positioned on the surface of the soft toy, can be partially embedded within the soft toy, and can be embedded completely within the soft toy.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claims, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the embodiments illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

What we claim is:

1. A child activity scheduling and alerting system, said system comprising:

a parental unit, said parental unit is operable by a parent to schedule activity alerts for a child, said parental unit comprising:

a microcontroller;

a transceiver coupled to said microcontroller;

an input means coupled to said microcontroller; and

a display means coupled to said microcontroller, said display means for showing the time status and the settings status;

and

at least one pediatric unit capable of establishing a bi-directional wireless communications link with said parental unit, said pediatric unit comprising:

a control unit;

a transceiver coupled to said control unit; and

at least one alerting unit coupled to said control unit;

wherein said parental unit, according to a schedule determined by said parent, generates and transmits a plurality of signals to said pediatric unit, said signals comprising unique schedule notification alert signals and command signals,

wherein said pediatric unit upon receipt of said signals, processes and interprets said signals and activates at least one alerting unit,

and

wherein said alerting unit when activated functions to alert the child.

2. A system as claimed in claim 1, wherein said pediatric unit further comprises a response means coupled to said control unit, said response means is actuable by said child to generate a response signal for transmission to the parental unit, and to terminate the alert at said pediatric unit.

3. A system as claimed in claim 2, wherein said parental unit further comprises a speaker means coupled to said microcontroller, said speaker means is capable of generating sounds to alert said parent.
4. A system as claimed in claim 3, wherein said alerting unit is selected from a group comprising a motion translating unit, a speaker unit, and a vibration generating unit.
5. A system as claimed in claim 4, wherein said display means is selected from the group comprising a LED display and a LCD display, said LED display having a plurality of LEDs.
6. A system as claimed in claim 4, wherein said display means comprises:
a LED display having a plurality LEDs; and
a plurality of indicator lights,
wherein said LED display for showing time, and wherein said indicator lights functioning to indicate the modes of the parental unit, said mode comprising a “settings” mode and a “normal” mode.
7. A system as claimed in claim 4, wherein said input means comprise switches.
8. A system as claimed in claim 4, wherein said speaker means of said parental unit is a sound card having recording and playback capabilities.
9. A system as in claimed in claim 4, wherein said pediatric unit further comprises a time display means.
10. A system as claimed in claim 9, wherein said time display means is a LED display having a plurality of LEDs.

11. A system as claimed in claim 4, wherein said speaker unit is a sound card having recording and playback capabilities.
12. A system as claimed in claim 4, wherein said response means is a switch.
13. A system as claimed in any one of the preceding claims 5 to 12, wherein each pediatric unit having an unique identification code, and wherein said parental unit is able to send different signals to different pediatric units, said signals comprising unique schedule notification alert signals and command signals.
14. A system as claim in any one of the preceding claims 1 to 13, wherein one pediatric unit is generally disposed within one soft toy.