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(54) **WIRELESS LIGHT AND ACCESSORY CONTROL SYSTEM FOR GOLF CARTS AND OTHER VEHICLES**

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B60Q 1/26	(2006.01)

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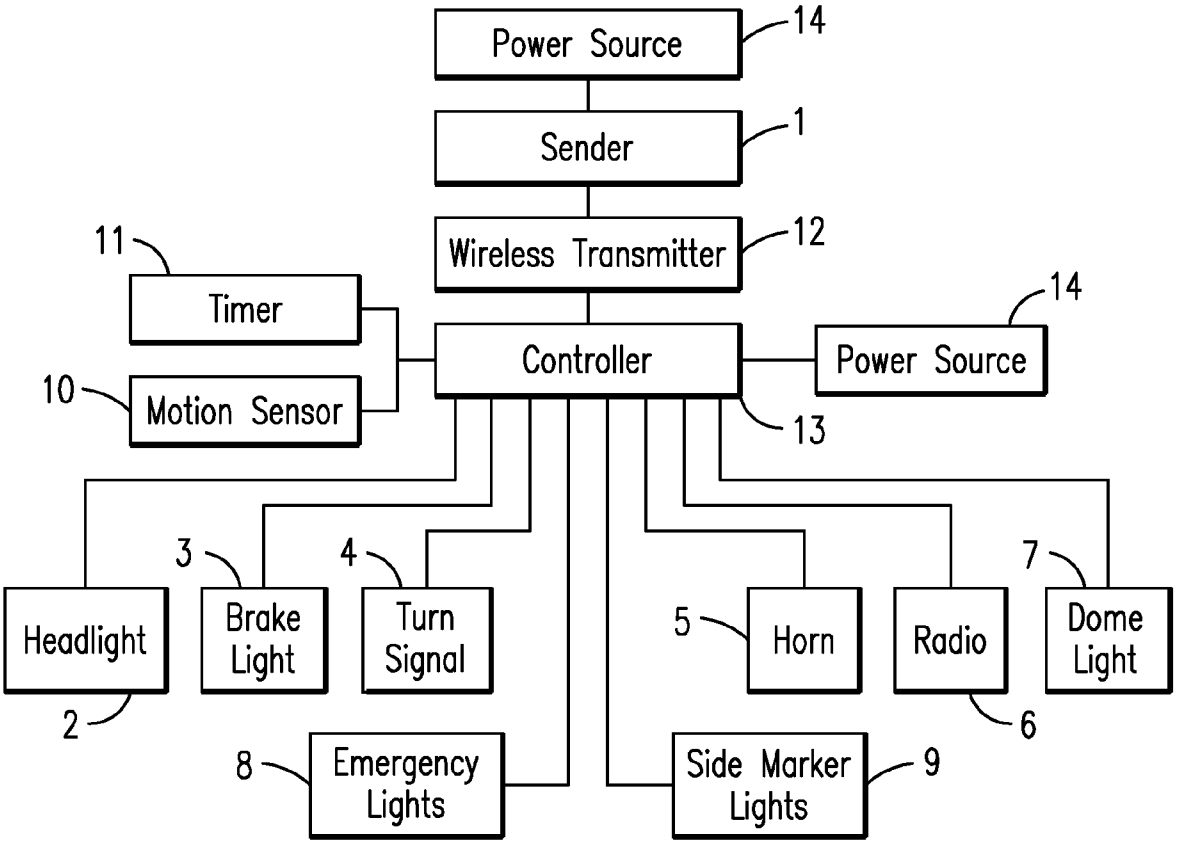
(57) **ABSTRACT**

A wireless light and accessory control system for golf carts (**18**) and other vehicles having a sender (**1**) that permits a user to remotely activate various accessories, such as headlights (**2**), turn signals (**4**), horns (**5**) and other accessories, such as radios, dome lights, etc., by sending signals via a wireless transmitter (**9**) located in the sender to controllers (**10**) located in each of the accessories. In addition, brake lights (**3**) may be activated and deactivated by a motion sensing means (**10**) in addition to being deactivated after a predetermined amount of time by a timer (**11**).



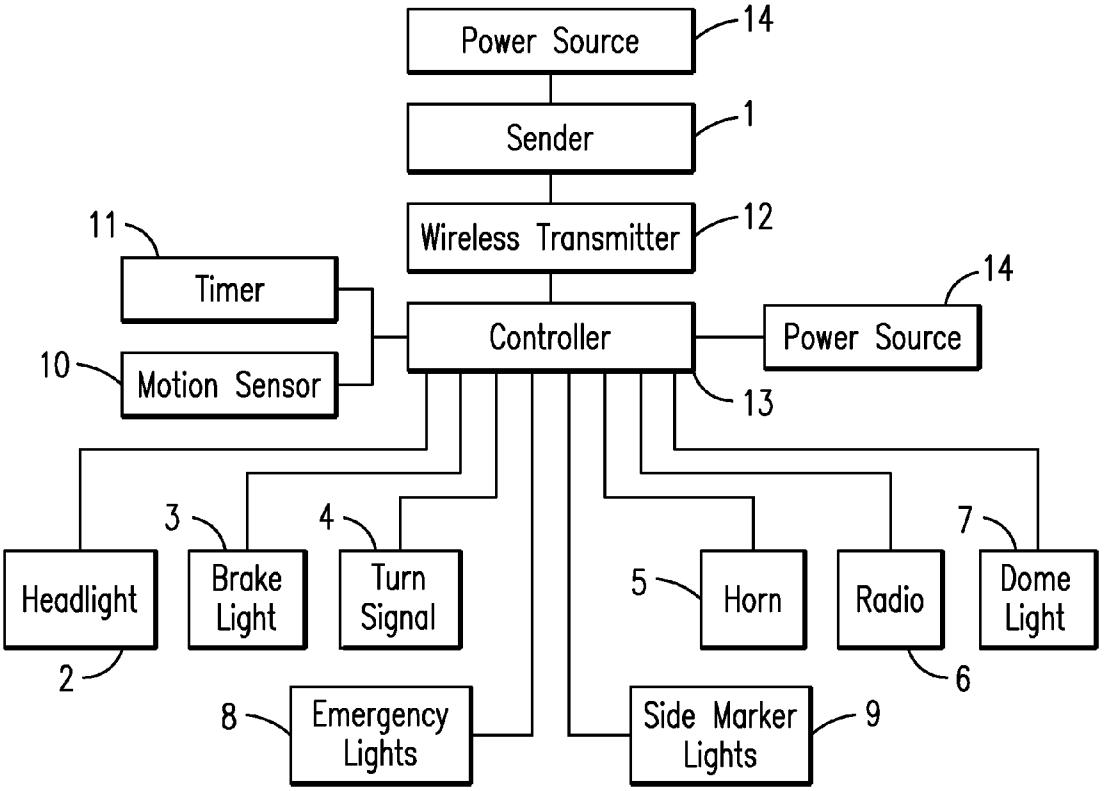

Power Source
14
Sender
1
Wireless Transmitter
12
11
Timer
Controller
14
Power Source
10
Motion Sensor
13
3
4
7
Headlight
Brake Light
Turn Signal
5
Horn
Radio
Dome Light
2
6
8
Emergency Lights
Side Marker Lights
9

FIG. 1

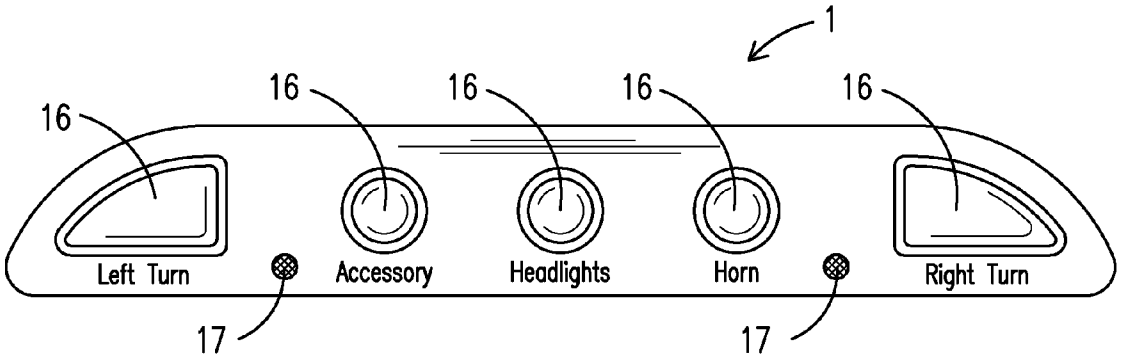

1
16
16
16
16
16
Left Turn
Accessory
Headlights
Horn
Right Turn
17
17

FIG. 2

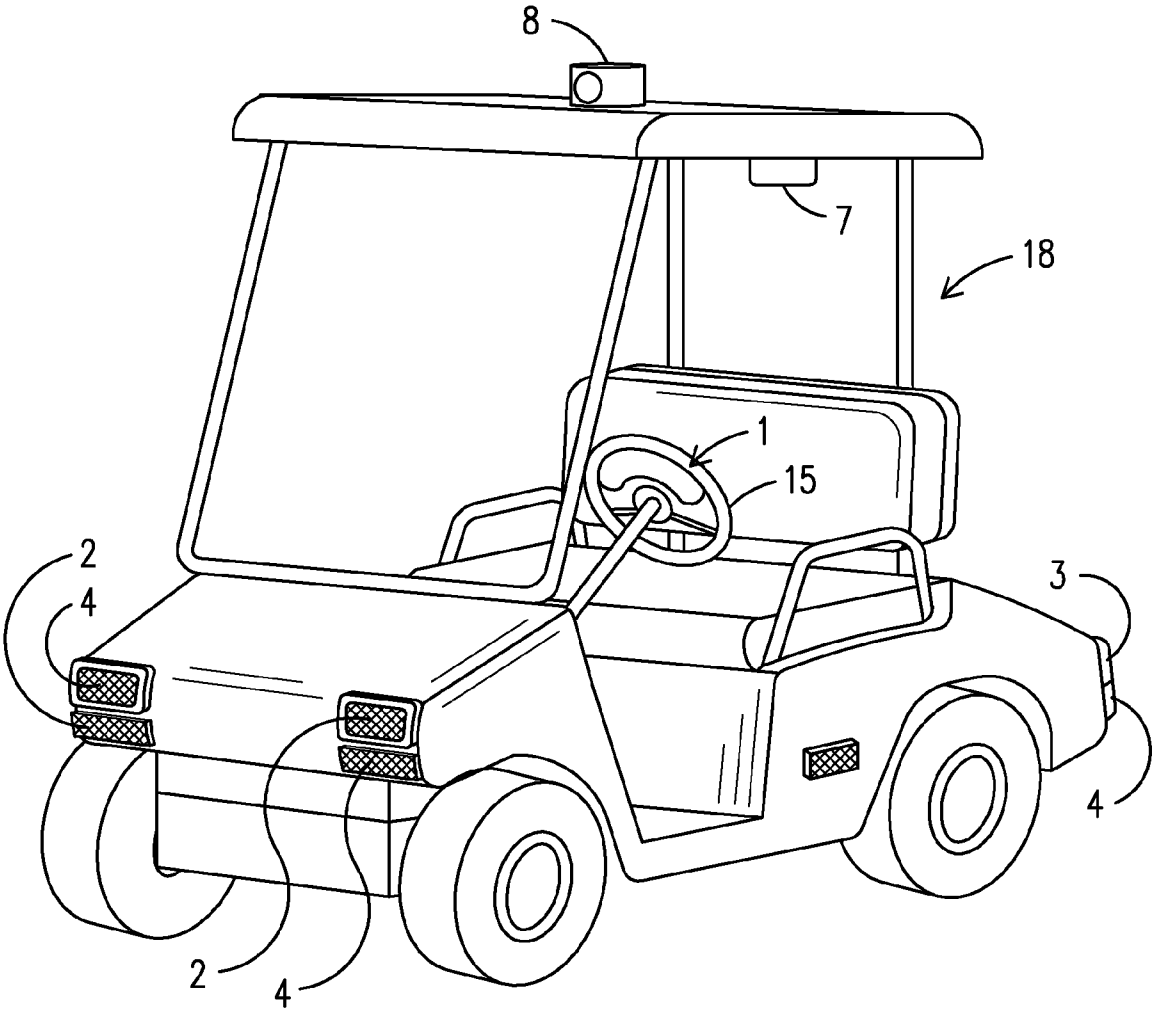

8
7
18
1
15
2
4
3
4
2
4

FIG. 3

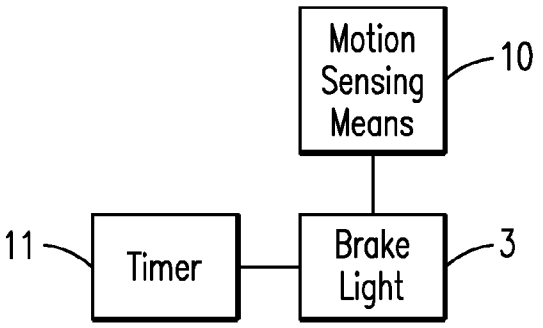

Motion Sensing Means
10
11
Timer
Brake Light
3

FIG. 5

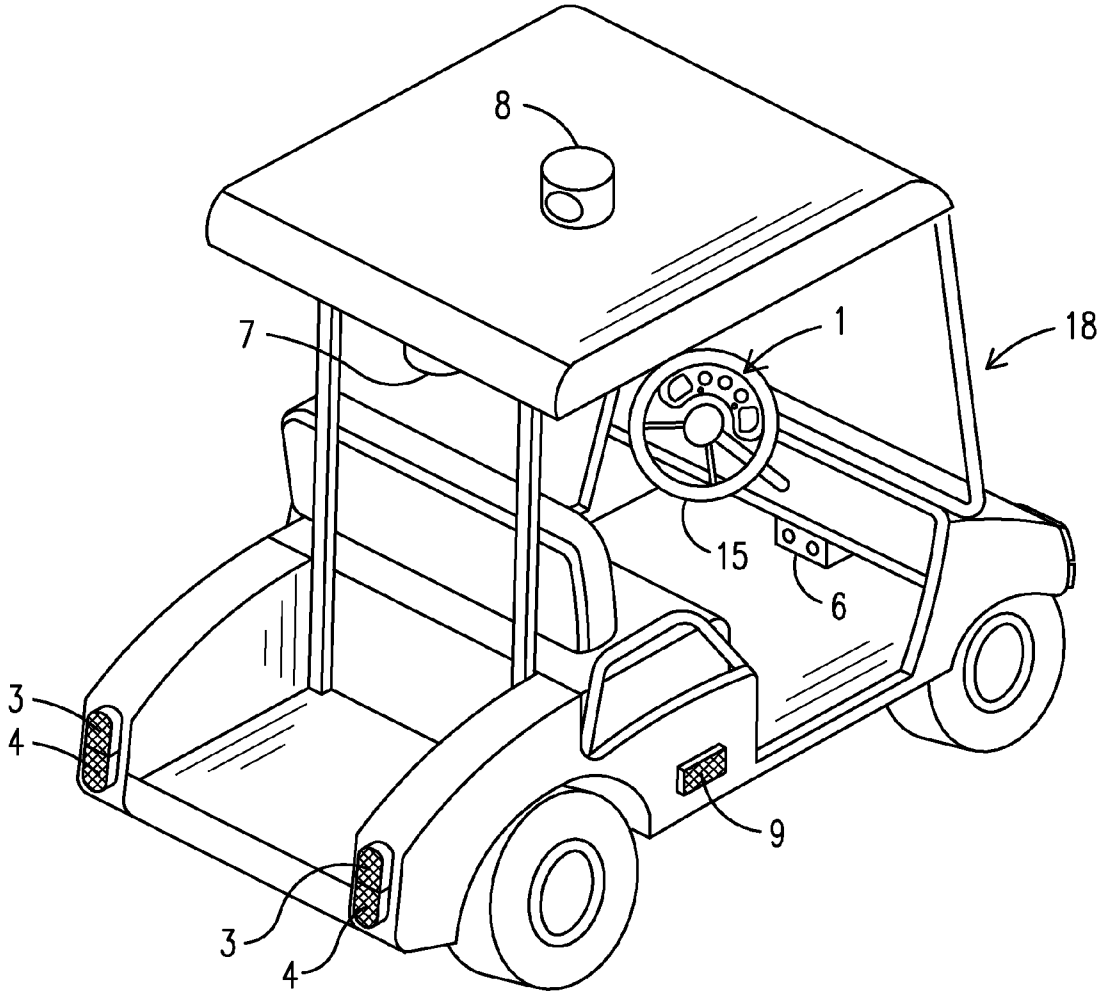


FIG. 4

WIRELESS LIGHT AND ACCESSORY CONTROL SYSTEM FOR GOLF CARTS AND OTHER VEHICLES

BACKGROUND OF THE INVENTION

[0001] This invention relates to golf carts, more particularly, a wireless light and accessory control system that allows a user to install accessories, such as head lights, brake lights, turn signals, a horn, etc., on a new or used golf cart and operate those accessories using a sender which transmits wireless signals to the controller.

[0002] Currently, many vehicles, particularly, golf carts, trailers, tractors, utility vehicles and all terrain vehicles, do not come equipped with headlights, brake lights, turn signals and/or horns. This lack of such safety equipment is because such vehicles are built for special purposes and uses. For instance, most golf carts are built to be used solely on golf courses where these types of safety accessories are not necessarily needed. However, many people buy golf carts to use not just as a means of transportation on golf courses but also around their neighborhoods and communities. This is especially true of people who live in golf or country club communities and own their own golf carts and drive their golf carts on streets from their homes to the golf course where others are operating automobiles and other vehicles. The lack of safety accessories, such as headlights, brake lights, turn signals and/or horns, on these golf carts pose serious safety risks and is against the law in certain areas of the country. Currently if someone wants to install accessories on a golf cart, the accessories must be hard-wired to controls mounted on the golf cart, thereby making installation difficult and expensive.

[0003] Therefore, a need exists for a safety accessory kit that may be easily installed on a vehicle so that the vehicle will be equipped with headlights, turn signals, brake lights, a horn and so forth, thereby being safer to operate on streets and around other vehicles.

[0004] The relevant prior art includes the following references:

Pat. No. (U.S. unless stated otherwise)	Inventor	Issue/Publication Date
2008/0088423	Liu	Apr. 17, 2008
2007/0132573	Quach et al.	Jun. 14, 2007
DE10345701	Bergdolt	Apr. 21, 2005
2005/0115761	Dinda et al.	Jun. 02, 2005
DE10358946	Elflein	Jun. 09, 2005
2005/0274591	Kim	Dec. 15, 2005
6,548,772	Liburdi	Apr. 15, 2003
FR2819223	Alves et al.	Jul. 12, 2002
PCT/DE99/03426	Besier et al.	Jun. 02, 2000
5,900,803	Politz et al.	May 04, 1999
5,719,555	Zeytoonjian et al.	Feb. 17, 1998
PCT/DE97/02759	Peter et al.	Jun. 11, 1998
4,859,982	Seaburg	Aug. 22, 1989
PCT/US89/02287	Anderson	Dec. 14, 1989
4,678,906	Rudi et al.	Jul. 07, 1987
4,063,789	Kreisl	Dec. 20, 1977
3,876,977	Ladewig	Apr. 08, 1975

SUMMARY OF THE INVENTION

[0005] The primary object of the present invention is to provide a wireless light and accessory control system for golf carts and other vehicles that can be easily installed on any golf cart.

[0006] Another object of the present invention is to provide a wireless light and accessory control system for golf carts and other vehicles that makes a golf cart safer to operate on streets.

[0007] An even further object of the present invention is to provide a wireless light and accessory control system for golf carts and other vehicles that may be retrofitted to other vehicles, such as trailers, tractors, utility vehicles, mowers, all terrain vehicles and so forth.

[0008] Another object of the present invention is to provide a wireless light and accessory control system for golf carts and other vehicles that will reduce wiring requirements by at least 33%.

[0009] A further object of the present invention is to provide a wireless light and accessory control system for golf carts and other vehicles that will reduce installation time by 75%.

[0010] The present invention fulfills the above and other objects by providing a wireless light and accessory control system for golf carts and other vehicles having a sender that permits a user to remotely activate various accessories, such as headlights, side marker lights, horns, turn signals, and other accessories, such as auxiliary lights, radios, dome lights, etc., by sending wireless signals via a wireless transmitter located in the sender to a controller or multiple controllers electronically connected to the accessories. The wireless signals may be coded signals. In addition, the wireless transmitter may be a multi-frequency wireless transmitter. The sender has a plurality of buttons to activate and deactivate the various accessories on the golf cart. The sender may also have indicator lights to indicate when accessories are activated. The sender may be mounted on or anywhere near a steering wheel or operator. In addition, accessories may be activated or deactivated using timers, speedometers, motion sensing means and so forth. For example, a timer would deactivate turn signals after a predetermined amount of time. In addition, brake lights would be activated and deactivated by a motion sensing means, such as a motion sensor, a tilt switch, an accelerometer, a speedometer, etc. In addition, the brake lights may be deactivated after a predetermined amount of time by a timer. In addition to being used in golf carts, the system may also be used on other vehicles, such as trailers, tractors, utility vehicles, all terrain vehicles and so forth.

[0011] The above and other objects, features and advantages of the present invention should become even more readily apparent to those skilled in the art upon a reading of the following detailed description in conjunction with the drawings wherein there is shown and described illustrative embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] In the following detailed description, reference will be made to the attached drawings in which:

[0013] FIG. **1** is a block diagram of a wireless light and accessory control system for golf carts and other vehicles;

[0014] FIG. **2** is a front view of a sender of a wireless light and accessory control system for golf carts and other vehicles;

[0015] FIG. **3** is a front perspective view of a golf cart having a sender and accessories of the wireless light and accessory control system for golf carts and other vehicles mounted thereon;

[0016] FIG. **4** is a rear perspective view of a golf cart having a sender and accessories of the wireless light and accessory control system for golf carts and other vehicles mounted thereon; and

[0017] FIG. **5** is a block diagram of an alternative embodiment of a wireless light and accessory control system for golf carts and other vehicles.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] For purposes of describing the preferred embodiment, the terminology used in reference to the numbered accessories in the drawings is as follows:

[0019] **1**. sender **11**. timer

[0020] **2**. head light **12**. wireless transmitter

[0021] **3**. brake light **13**. controller

[0022] **4**. turn signal **14**. power source

[0023] **5**. horn **15**. steering wheel

[0024] **6**. radio **16**. push button

[0025] **7**. dome light **17**. indicator light

[0026] **8**. emergency light **18**. golf cart

[0027] **9**. side marker light

[0028] **10**. motion sensing means

[0029] With reference to FIG. **1**, a block diagram of a wireless light and accessory control system for golf carts and other vehicles is shown. The wireless light and accessory control system for golf carts and other vehicles is comprised of a sender I that permits a user to remotely activate various accessories, such as headlights **2**, brake lights **3**, turn signals **4**, a horn **5**, a radio **6**, a dome light **7**, emergency lights **8**, side marker lights **9** and so forth, by sending wireless signals via a wireless transmitter **12** located in the sender **1** to a controller **13** that is electronically connected to each of the accessories. The wireless transmitter **12** may be a single or multi-frequency wireless transmitter. Further, the wireless signals may be coded for each accessory being activated or deactivated. In addition, the accessories may be activated or deactivated using timers **11**, or a motion sensing means **10**. For example, after a predetermined amount of time, a timer **11** located in the controller **13** would deactivate the turn signals **4**. A signal from a motion sensing means **10**, such as a motion sensor, a tilt switch, an accelerometer, a speedometer, etc., that sends a signal to the controller **13** or directly to the brake lights **3**, as shown in FIG. **5**, would activate and deactivate the brake lights **3**. In addition, a timer **11** located in the controller **13** may deactivate the brake lights **3** after a predetermined amount of time. The controller **13** and accessories would be powered by a power source **14**, such as an internal battery or a golf cart battery. The sender **1** would also be powered by a power source **14**, such as an internal battery or a golf cart battery

[0030] Now referring to FIG. **2**, a front view of a sender **1** of a wireless light and accessory control system for golf carts and other vehicles is shown. The sender **1** may be mounted to a steering wheel **15**, as shown in FIGS. **3** and **4**, or in the vicinity of the steering wheel, such as to the dash board, console, roof, steering column, etc. using various attachment means, such as brackets, screws, clamps, glue, hook and loop fasteners and so forth. The sender **1** permits a user to remotely activate the various accessories of the wireless light and accessory control system for golf carts and other vehicles by wireless signals via a wireless transmitter **12** located in the sender **1** to a controller **13** that is electronically connected to each of the accessories. The wireless transmitter **12** may be a single or multi-frequency wireless transmitter. Further, the wireless signals may be coded for each accessory being activated or deactivated. The sender **1** includes a display having a plurality of push buttons **16** to activate and deactivate the various accessories connected to the controller **13**. The sender **1** may also have indicator lights **17** that illuminate to indicate when accessories are activated, for example indicator lights **17** may be programmed to blink when the turn signals **4** are activated.

[0031] Now referring to FIG. **3**, a front perspective view of a golf cart **18** having a sender **1** and accessories of the wireless light and accessory control system for golf carts and other vehicles mounted thereon is shown. Head lights **2** are mounted on the front of a golf cart **18** so that a user may operate the golf cart **18** safely in the dark. In addition turn signals **4** are mounted on the front and back of the golf cart **18** so that a user may communicate to third parties which direction the user is planning on turning. Brake lights **3** are mounted to the back of the golf cart **18** to warn third parties that the golf cart **18** is coming to a stop. The sender **1** is mounted to a steering wheel **15** and activates the accessories via wireless signals sent to the controller **13**, as shown in FIG. **1**.

[0032] Now referring to FIG. **4**, a rear perspective view of a golf cart **18** having a sender **1** and accessories of the wireless light and accessory control system for golf carts and other vehicles mounted thereon is shown. Turn signals **4** are mounted on the back of a golf cart **18** so that a user may communicate to third parties which direction the user is planning on turning. Brake lights **3** are mounted to the back of the golf cart **18** to warn third parties that the golf cart **18** is coming to a stop. In addition, a radio **6**, dome light **7**, emergency light **8** and side marker light **9** are mounted to the golf cart **18**. The sender **1** is mounted to a steering wheel **15** and activates the accessories via wireless signals sent to the controller **13**, as shown in FIG. **1**.

[0033] Finally, referring to FIG. **5**, a block diagram of a wireless light and accessory control system for golf carts and other vehicles is shown. A signal from a motion sensing means **10**, such as a motion sensor, a tilt switch, an accelerometer, a speedometer, etc., sends a signal directly to the brake lights **3** that activates or deactivates the brake lights **3**. In addition, a timer **11** deactivates the brake lights **3** after a predetermined amount of time.

[0034] It is to be understood that while a preferred embodiment of the invention is illustrated, it is not to be limited to the specific form or arrangement of parts herein described and shown. It will be apparent to those skilled in the art that various changes may be made without departing from the scope of the invention and the invention is not be considered limited to what is shown and described in the specification and drawings.

Having thus described my invention, I claim:

1. A wireless light and accessory control system for golf carts and other vehicles comprising:

a sender mounted on a vehicle wherein said sender has at least one wireless transmitter for sending wireless signals;

a controller for receiving wireless signals from said at least one wireless transmitter;

at least one accessory mounted on a vehicle connected to said controller; and

at least one power source for powering said wireless light and accessory control system for golf carts and other vehicles.

2. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a headlight.

3. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a turn signal.

4. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a brake light.

5. The wireless light and accessory control system for golf carts and other vehicles claim **1** wherein:

said at least one accessory is a horn.

6. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a radio.

7. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a dome light.

8. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is an emergency light.

9. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one accessory is a side marker light.

10. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said sender further comprises at least one push button for activating and deactivating said at least one accessory.

11. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said sender further comprises at least one indicator light for indicating if the at least one accessory is activated.

12. The wireless light and accessory control system for golf carts and other vehicles of claim **1** further comprising:

at least one timer for deactivating said at least one accessory after a predetermined amount of time.

13. The wireless light and accessory control system for golf carts and other vehicles of claim **3** further comprising:

at least one timer for deactivating said at least one accessory after a predetermined amount of time.

14. The wireless light and accessory control system for golf carts and other vehicles of claim **1** further comprising:

at least one motion sensing means for activating and deactivating said at least one accessory.

15. The wireless light and accessory control system for golf carts and other vehicles of claim **4** further comprising:

at least one motion sensing means for activating and deactivating said at least one accessory.

16. The wireless light and accessory control system for golf carts and other vehicles of claim **14** further comprising:

at least one timer for deactivating said at least one accessory after a predetermined amount of time.

17. The wireless light and accessory control system for golf carts and other vehicles of claim **15** further comprising:

at least one timer for deactivating said at least one accessory after a predetermined amount of time.

18. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said wireless signals sent from at least one wireless transmitter are coded signals.

19. The wireless light and accessory control system for golf carts and other vehicles of claim **1** wherein:

said at least one wireless transmitter is a multi-frequency wireless transmitter.

20. A wireless light and accessory control system for golf carts and other vehicles comprising:

at least one brake light;

a motion sensing means for activating and deactivating the at least one brake light.

21. The wireless light and accessory control system for golf carts and other vehicles of claim **20** further comprising:

at least one timer for deactivating said at least one brake light after a predetermined amount of time.

* * * * *