Claims

1. A network of motorized window covering assemblies comprising:

a plurality of motorized window covering assemblies, each of the plurality of motorized window covering assemblies comprises:

an elongated motor assembly including a motor, a control board communicably coupled to the motor, one of a step-down transformer, a rectifier, a waveform conditioning circuit and waveform amplifying circuit which is communicably coupled to the motor, and an elongated casing enclosing the motor, the control board and the one of a step-down transformer, a rectifier, a waveform conditioning circuit and waveform amplifying circuit, wherein the control board controls operation of the motor in accordance with received control signals;

a window covering holder coupled to the elongated motor assembly, wherein the window covering holder has a cylindrical shape, wherein a portion of the window covering holder is hollow, wherein the elongated motor assembly has a cylindrical shape, wherein the elongated motor assembly is located inside of the hollow portion of the window covering holder, wherein the operation of the motor causes at least a portion of the window covering holder to move such that a window covering attached to the window covering holder would also move; and

a WiFi interface and a RF interface which are communicably coupled to the control board and located inside of the hollow portion of the window covering holder, wherein the received control signals are received via one of the WiFi interface and the RF interface;

a network;

a central control system communicably coupled to the plurality of motorized window covering assemblies through the network, wherein the central control system is configured to send a common command through the network to at least two of the plurality of motorized window covering assemblies, wherein a user undertakes one sequence of steps that causes the central control system to send the common command; wherein

2. at least some of the plurality of motorized window covering assemblies are further communicably coupled, through the network, to a first remote device and configured to receive a first control command therefrom through the network; and wherein

at least one of the plurality of motorized window covering assemblies is further communicably coupled, through RF, to a second remote device and configured to receive a second control command therefrom through RF.

3. The network of motorized window covering assemblies of claim 1, wherein the WiFi interface and the RF interface are an integrated WiFi/RF module.

The network of motorized WiFi window covering assemblies of claim 25,wherein the first remote device is one of smart phone and tablet.

CLAIMS

What is claimed is:

1. A Wi-Fi motorized window covering assembly comprising:

a motor;

a window covering holder coupled to the motor; and

a control board communicably coupled to the motor, the control board including a WiFi interface to receive control signals;

wherein the control board controls, by providing current or voltage, operation of the motor in accordance with the control signals received through the WiFi interface, wherein the operation of the motor causes at least a portion of the window covering holder to move such that a window covering attached to the window covering holder would also move.

2. The Wi-Fi motorized window covering assembly of claim 1, wherein the motor is at least one of a DC motor, a brushed DC motor, a brushless DC motor, an AC motor, or a stepper motor, wherein the control board includes a motor control unit having at least one control interface.

3. The Wi-Fi motorized window covering assembly of claim 1, further comprising:

a window covering, wherein the window covering is attached to the window covering holder, wherein the window covering is at least one of a curtain, a blind, a drape, a screen, a shade, a roller, or a shutter.

4. The Wi-Fi motorized window covering assembly of claim 1, wherein the control board provided current or voltage to control the operation of the motor communicates digital signals.

5. The Wi-Fi motorized window covering assembly of claim 1, further comprising:

at least one of a power supply board, a step-down transformer, or a rectifier.

6. The Wi-Fi motorized window covering assembly of claim 1, further comprising:

an RF interface communicably coupled to the control board, wherein the control board controls the operation of the motor in accordance with the control signals received through the RF interface, wherein the control signals are sent by an RF device, wherein the WiFi interface and the RF interface are an integrated WiFi/RF module.

7. The motorized window covering assembly of claim 1, further comprising:

an elongated casing surrounding the motor and the control board.

8. The Wi-Fi motorized window covering assembly of claim 7, wherein the window covering holder is the elongated casing.

9. The Wi-Fi motorized window covering assembly of claim 7, wherein the elongated casing has a cylindrical shape, wherein the window covering holder has a cylindrical shape, wherein a portion of the window covering holder is hollow, wherein the elongated casing, the surrounded motor, and the surrounded control board are inside of the hollow portion of the window covering holder.

10. The Wi-Fi motorized window covering assembly of claim 9, wherein the hollow portion of the window covering holder extends from a first end of the window covering holder to a second end of the window covering holder, wherein the elongated casing extends from the first end of the window covering holder to the second end of the window covering holder.

11. The Wi-Fi motorized window covering assembly of claim 10, wherein the second end of the window covering holder has an end cap, wherein the second end of the elongated casing has an end cap.

12. The Wi-Fi motorized window covering assembly of claim 7, wherein the elongated casing is made of at least one composite material.

13. The Wi-Fi motorized window covering assembly of claim 12, wherein the composite material is plastic.

14. The Wi-Fi motorized window covering assembly of claim 7, wherein the elongated casing is for at least one of: dissipating heat, absorbing noise, reducing weight, or preventing electrical conduction.

15. A window covering assembly comprising:

an elongated motor assembly including a motor, a control board communicably coupled to the motor, and an elongated casing enclosing the motor and the control board, wherein the control board controls operation of the motor in accordance with received control signals; and

a window covering holder coupled to the elongated motor assembly, wherein the window covering holder has a cylindrical shape, wherein a portion of the window covering holder is hollow, wherein the elongated motor assembly has a cylindrical shape, wherein the window covering assembly is located inside of the hollow portion of the window covering holder, wherein the operation of the motor causes at least a portion of the window covering holder to move such that a window covering attached to the window covering holder would also move.

16. The window covering assembly of claim 15, further comprising: an RF interface communicably coupled to the control board, wherein the received control signals are received via the RF interface, wherein the control signals are sent by an RF device.

17. A method for controlling a WiFi motorized window covering assembly comprising:

receiving, by a WiFi interface on a control board communicably coupled to a motor, control signals, wherein an elongated casing surrounds the motor and the control board, wherein the motor is mechanically coupled with a window covering holder; and

controlling operation of the motor in accordance with the received control signals, wherein the operation of the motor causes at least a portion of the window covering holder to move such that a window covering attached to the window covering holder would also move.

18. The method of claim 17, wherein the control signals that are received by the WiFi interface are generated by a remote device.

19. The method of claim 18, wherein the remote device downloads an application to enable the remote device to generate the control signals that are received by the WiFi interface.

20. The method of claim 18, wherein the control signals are transmitted through a network.

21. The method of claim 18, wherein the control signals are received by the WiFi interface directly from the remote device.

22. The method of claim 17, further comprising:

receiving, by an RF interface on the control board, control signals from an RF device.

23. The method of claim 22, wherein the WiFi interface and the RF interface are an integrated WiFi/RF module.

24. The method of claim 18, wherein the remote device generated control signals are received by a plurality of WiFi interfaces, each WiFi interface on a control board communicably coupled to a motor.

25. A network of motorized WiFi window covering assemblies comprising:

a plurality of WiFi motorized window covering assemblies;

a network;

a central control system, wherein the central control system sends a common command to at least two of the plurality of WiFi motorized window covering assemblies, wherein a user undertakes one sequence of steps that causes the central command system to send the common command; and

at least one remote device.

26. The network of motorized WiFi window covering assemblies of claim 25, further comprising:

at least one RF device.