

CLAIMS

What is claimed is:

1. A system for a time-controlled medication dispensing, comprising:
 - a computing device;
 - a dispensing device wirelessly connected to the computing device, the dispensing device comprising:
 - a cylindrical housing with a first closed end and a second closed end;
 - wherein the first closed end has a surface and a nozzle which moves perpendicular relative to the surface;
 - a liquid container within the housing having a pump assembly connected thereto, the pump assembly actuatable through movement of the nozzle toward the surface;
 - a processor located within the housing and configured to actuate a locking mechanism within the housing according to instructions transmitted from the computing device;
 - wherein, in a locked position, the locking mechanism blocks the nozzle from depressing to the surface of the first closed end.
2. The system of claim 1, wherein the locking mechanism is a solenoid within the housing which moves perpendicular to the nozzle.
3. The system of claim 1, wherein, in an unlocked position, the locking mechanism does not block the nozzle from moving to the surface of the first closed end.
4. The system of claim 1, wherein the locking mechanism comprises a motor assembly having a motor which rotates a gear within an internal gear wheel.
5. The system of claim 4, further comprising:
 - a lock on the internal gear wheel, the lock having a keyway; and
 - a shaft on the pump assembly having one or more keys configured to fit within the keyway.
6. The system of claim 5, wherein, in the unlocked position, the keys are aligned with the keyway.
7. The system of claim 5, wherein, in the locked position, the keys are not in alignment with the keyway.
8. The system of claim 1, wherein the instructions are a dosage schedule.
9. A system for a time-controlled medication dispensing, comprising:

a computing device;

a dispensing device wirelessly connected to the computing device, the dispensing device comprising:

a nozzle, which moves perpendicular to a surface of a cylindrical housing with a first portion and a second portion, the first portion having a pump assembly connected to the nozzle and the second portion having a liquid container therein connected to the pump assembly;

a processor located within the first portion of the housing, operably connected to a power source and configured to actuate a locking mechanism within the housing according to instructions transmitted from the computing device;

wherein, the locking mechanism moves from a locked position to an unlocked position when actuated by the processor.

10. The system of claim 9, wherein, in the locked position, the locking mechanism blocks the nozzle from moving to the surface of the cylindrical housing.

11. The system of claim 9, wherein the locking mechanism is a solenoid within the housing which moves perpendicular to the nozzle.

12. The system of claim 9, wherein the locking mechanism is a motor assembly

13. The system of claim 12, wherein the motor assembly comprises:

a motor connected to a first gear, which is rotatable by the motor within an internal gear wheel;

a lock on the internal gear wheel, the lock having a keyway; and

a shaft on the pump assembly having one or more keys configured to fit within the keyway.

14. The system of claim 13, further comprising:

a second gear connected to both the motor and a disc on a bottom surface of the first portion.

15. The system of claim 14, further comprising:

one or more cutouts along an outer circumference of the disc;

apertures in the bottom surface of the first portion; and

one or more flanges along a top surface of the second portion;

wherein the flanges are configured to slide through the apertures in the bottom surface of the first portion and the cutouts in the disc when the apertures and the cutouts are aligned.

16. The system of claim 15, wherein rotation of the second gear by the motor, rotates the disc and the cutouts out of alignment with the apertures, locking the flanges in the first portion of the housing.
17. A method for controlled medical therapy, comprising the steps of:
 - providing a system comprising a computing device and a dispensing device wirelessly connected to the computing device, the dispensing device comprising a cylindrical housing with a first closed end and a second closed end, wherein the first closed end has a surface and a nozzle which moves perpendicular relative to the surface, a liquid container within the housing having a pump assembly connected thereto, the pump assembly actuable by movement of the nozzle toward the surface, and a processor located within the housing and configured to actuate a locking mechanism;
 - transmitting an authentication key from the computing device to the processor of the dispensing device;
 - transmitting instructions from the computing device to the processor of dispensing device;
 - verifying an identity via the authentication key;
 - moving the locking mechanism, by the processor, to an unlocked position according to the instructions from the computing device;
 - depressing the nozzle toward the surface of the first closed end of the cylindrical housing;
 - expelling a substance from the liquid container through the nozzle via the pump assembly.
18. The method of claim 17, wherein the step of depressing the nozzle toward the surface of the first closed end of the cylindrical housing includes activating a tactile switch, which sends a signal to the processor of the dispensing device.
19. The method of claim 18, further comprising the step of transmitting a signal from the processor to the locking mechanism causing the locking mechanism to move to a locked position.
20. The method of claim 18, further comprising the step of maintaining, by the processor, the locking mechanism in a locked position according to the instructions from the computing device.