Claims

1. An automated medicine sorting and medicine dispensing system characterized by comprising:

a medicine storage mechanism for storing a plurality of types of medicine;

a medicine picking up mechanism for picking up medicines from said medicine storage mechanism; and

a rotating base comprising a housing chamber, a rotating pad that is set within said housing chamber and an electrical motor that drives said rotating pad to rotate, wherein said housing chamber is in communication with a medicine discharging passage,

a portable medicine box for receiving medicines sorted and dispensed, said portable medicine box couples with said rotating pad, said portable medicine box comprises a plurality of medicine storage slots, said plurality of medicine storage slots are able to rotate around the axis of said portable medicine box,

a cup for receiving medicines sorted and dispensed, said cup couples with said rotating pad,

wherein said rotating pad comprises a medicine box coupling portion and a cup coupling portion, said medicine box coupling portion couples with said portable medicine box, said cup coupling portion couples with said cup, said medicine box coupling portion at least partly overlaps with said cup coupling portion.

2. The automated medicine sorting and medicine dispensing system according to claim 1, characterized in that said medicine picking up mechanism comprises a first foldable machine arm, a second foldable machine arm, a suction nozzle and a driving mechanism, in idle status, said first foldable machine arm and second foldable machine arm are folded in the

horizontal

direction, in working status, said first foldable machine arm and second foldable machine arm cooperate mutually to move in the horizontal direction and the vertical direction under the action of the driving mechanism, said suction nozzle is connect at one end of said second foldable machine arm, and sucks medicines by negative pressure.

3. The automated medicine sorting and medicine dispensing system according to claim 2, characterized in that said medicine picking up mechanism further comprise a pump and a suction tube, said suction tube connects said pump and said suction nozzle, said pump is used for delivering the generated vacuum to said suction nozzle through said suction tube.

4. The automated medicine sorting and medicine dispensing system according to claim 2, characterized in that said medicine storage mechanism comprises a rotating table and a plurality of medicine storage containers that engage within said rotating table, a protruding hollow passage is set in the middle of said rotating table, said rotating table is able to rotate around said hollow passage under the driving of an electrical motor, said hollow passage is in communication with the medicine discharging opening of said automated medicine sorting and medicine dispensing system which is aligned with the overlapping portion of said medicine box coupling portion and said cup coupling portion.

5. The automated medicine sorting and medicine dispensing system according to claim 4, characterized in that said medicine picking up mechanism further comprises a cover plate , a horizontal slide rail provided on said cover plate, and a first opening and a second opening opened on said cover plate, said cover plate rotatably couples with said rotating table, said first opening is in communication with said hollow passage, and said second opening is in communication with said medicine storage container.

6. The automated medicine sorting and medicine dispensing system according to claim 5, characterized in that said first foldable machine arm comprises a first upper arm and a first lower arm, said second foldable machine arm comprises a second upper arm and a second lower arm, one end of said first upper arm is slidingly connected with said horizontal slide rail, said medicine picking up mechanism further comprises first, second, and third hinges, one end of said first upper arm and one end of said second upper arm are connected with said first hinge, the other end of said first upper arm and the other end of said second upper arm, as well as one end of said first lower arm and one end of said second lower arm are connected

with said second hinge, the other end of said first lower arm and the other end of said second lower arm are connected with said third hinge, said third hinge is connected with said suction nozzle.

7. The automated medicine sorting and medicine dispensing system according to claim 1, characterized in that said automated medicine sorting and medicine dispensing system further comprises a medicine loading door which opens under the control of a electromagnetic valve.

8. The automated medicine sorting and medicine dispensing system according to claim 4, characterized in that said medicine storage container has a curved bottom surface on which at least one slope is provided.

9. The automated medicine sorting and medicine dispensing system according to claim 1, characterized in that said automated medicine sorting and medicine dispensing system further comprises a sensing system for sensing location, temperature, and humidity information.

10. The automated medicine sorting and medicine dispensing system according to claim 1, characterized in that said automated medicine sorting and medicine dispensing system further comprises a control system for controlling each controllable element.