CLAIMS

What is claimed is:

1. A turntable structure, comprising:

a cleaning turntable, one side of the cleaning turntable being connected with a cleaning piece configured to clean a floor;

an adjusting component slidably connected with the cleaning turntable along a target direction, and located on a side of the cleaning turntable facing away from the cleaning piece, the target direction being parallel to a rotating shaft of the cleaning turntable, and one side of the adjusting component far away from the cleaning piece being connected with a driving mechanism of a robot to drive the cleaning turntable to rotate; and

a pressure unit provided between the cleaning turntable and the adjusting component and configured to apply a vertical downward force to the cleaning turntable when the target direction is perpendicular to a horizontal plane,

wherein the driving mechanism comprises a driving shaft connected with one side of the adjusting component far away from the cleaning piece and configured to rotate the adjusting component; the adjusting component is swingable relative to the driving shaft.

2. The turntable structure according to claim 1, wherein the turntable structure further comprises a limiting structure configured to limit a sliding distance of the cleaning turntable relative to the adjusting component along the target direction.

3. The turntable structure according to claim 2, wherein the limiting structure comprises a limiting block and a limiting groove, the limiting block is accommodated in the limiting groove, and a groove wall of the limiting groove is configured to limit a moving distance of the limiting block along the target direction; the limiting block and the limiting groove are provided between the adjusting component and the cleaning turntable, or the limiting block is provided on the adjusting component and the limiting groove is provided on the cleaning turntable, or the limiting block is provided on the cleaning turntable and the limiting groove is provided on the

adjusting component.

4. The turntable structure according to claim 3, wherein the cleaning turntable comprises a first accommodating cavity, and the adjusting component is

accommodated in the first accommodating cavity, an outer surface of the adjusting component is slidably connected with an inner wall of the first accommodating cavity along the target direction; and

the outer surface of the adjusting component comprises a first limiting surface, and the inner wall of the first accommodating cavity comprises a second limiting surface, the first limiting surface and the second limiting surface are limited by each other to limit a relative rotation between the adjusting component and the cleaning turntable.

5. The turntable structure according to claim 4, wherein the pressure unit is an elastic element abutted against the cleaning turntable and the adjusting component respectively, or, the pressure unit is a gravity element and a weight of the gravity element is greater than a preset weight.

6. The turntable structure according to claim 3, wherein one side of the cleaning turntable far away from the cleaning piece comprises a connection portion, the adjusting component comprises a second accommodating cavity, the connection portion is accommodated in the second accommodating cavity, and an outer surface of the connection portion is slidably connected with an inner wall of the second accommodating cavity along the target direction; and

the outer surface of the connection portion comprises a third limiting surface, and the inner wall of the second accommodating cavity comprises a fourth limiting surface, the third limiting surface and the fourth limiting surface are limited by each other to limit a relative rotation between the adjusting component and the cleaning turntable.

7. A turntable structure, comprising:

a cleaning turntable connected with a cleaning piece;

an adjusting component slidably connected with the cleaning turntable along a target direction, the target direction being parallel to a rotating shaft of the cleaning turntable, the adjusting component being connected with a driving mechanism of a robot to drive the cleaning turntable to rotate; and

a pressure unit provided between the cleaning turntable and the adjusting

component, for providing a force to make the cleaning turntable to slide relative to the adjusting component,

wherein the driving mechanism comprises a driving shaft connected with one side of the adjusting component far away from the cleaning piece and configured to rotate the adjusting component; the adjusting component is swingable relative to the driving shaft.

8. The turntable structure according to claim 7, wherein the adjusting component is fixedly connected with ~~a~~the driving shaft of the driving mechanism, which is capable of transmitting torque to the adjusting component;

the cleaning turntable is slidable relative to the adjusting component along the target direction and rotatable along with rotation of the adjusting component.

9. The turntable structure according to claim 8, wherein the driving shaft is provided with a shaft end, a shaft sleeve is provided inside the adjusting component, and the shaft end of the driving shaft is connected with ~~a~~the shaft sleeve inside the adjusting component.

10. The turntable structure according to claim 9, wherein the shaft sleeve is provided with a groove, the shaft end is sleeved in the groove of the shaft sleeve, an end of the shaft end is slidably connected with a bottom of the shaft sleeve, and a sliding direction of the end of the shaft end relative to the bottom of the shaft sleeve is in the same direction as a swing direction of the adjusting component relative to the driving shaft.

11. The turntable structure according to claim 10, wherein the end of the shaft end is abutted against the bottom of the shaft sleeve, and the shaft end is slidable relative to the shaft sleeve along a track of ~~the~~a hemispherical surface.

12. The turntable structure according to claim 9, wherein the bottom of the shaft sleeve is provided with a magnetic unit, which is configured to be magnetically connected with the shaft end, to make the shaft sleeve to be magnetically connected with the shaft end.

13. The turntable structure according to claim 9 or 12, wherein there is a gap between the shaft sleeve and the shaft end, so that the adjusting component is

swingable relative to the driving shaft.

14. The turntable structure according to claim 7, wherein the adjusting component is accommodated in the cleaning turntable.

15. A robot, comprising:

a robot body;

a mopping module provided at a bottom of the robot body and comprising a turntable structure and a cleaning piece; and

a driving mechanism installed on the robot body, connected with an adjusting component and configured to rotate the mopping module;

wherein the turntable structure comprises:

a cleaning turntable, one side of the cleaning turntable being connected with the cleaning piece configured to clean a floor;

the adjusting component slidably connected with the cleaning turntable along a target direction, and located on one side of the cleaning turntable facing away from the cleaning piece, the target direction being parallel to a rotating shaft of the cleaning turntable, one side of the adjusting component far away from the cleaning piece being connected with the driving mechanism of the robot to drive the cleaning turntable to rotate; and

a pressure unit provided between the cleaning turntable and the adjusting component, and configured to apply a vertical downward force to the cleaning turntable when the target direction is perpendicular to a horizontal plane~~.~~

~~16. The robot according to claim 15~~,

wherein the driving mechanism comprises a driving shaft connected with one side of the adjusting component far away from the cleaning piece and configured to rotate the adjusting component; the adjusting component is swingable relative to the driving shaft.

1~~7~~6. The robot according to claim 1~~6~~5, wherein the driving shaft is connected with the adjusting component through connection of a shaft sleeve with a shaft end, the shaft sleeve is provided with a groove, the is sleeved in the groove of the shaft sleeve, an end of the shaft end is slidably connected with a bottom of the shaft sleeve, and a sliding direction of the end of the shaft end relative to the bottom of the shaft sleeve is same as a swinging direction of the adjusting component relative to the driving shaft;

a gap is formed between an inner surface of the shaft sleeve and an outer

surface of the shaft end, and the gap is changed from large to small as advancing from

an opening of the groove of the shaft sleeve to the bottom of the shaft sleeve so that the adjusting component is swingable relative to the driving shaft; a fifth limiting surface is provided on the inner surface of the shaft sleeve, and a sixth limiting surface corresponding to the fifth limiting surface is provided on the outer surface of the shaft end, the fifth limiting surface and the sixth limiting surface are limited by each other to limit a relative rotation between the shaft sleeve and the shaft end;

the shaft sleeve is provided on the adjusting component, and the shaft end is provided on the driving shaft; or, the shaft sleeve is provided on the driving shaft, and the shaft end is provided on the adjusting component.

1~~8~~7. The robot according to claim 1~~7~~6, wherein a magnetic unit is provided at the bottom of the shaft sleeve, and the magnetic unit is configured to be magnetically connected with the shaft end.

1~~9~~8. The robot according to claim 15, wherein a bottom of the robot is provided with two driving wheels and one universal wheel, and the two driving wheels and the one universal wheel are configured to support the robot on the floor;

the mopping module is provided among the two driving wheels and the universal wheel;

the universal wheel is provided before the mopping module along an advance direction of the robot.

~~20~~19. The robot according to claim 1~~9~~8, wherein there are two mopping modules;

the universal wheel is located between the two mopping modules, and intersects with a target tangent line, wherein the target tangent line is perpendicular to the advance direction of the robot and is a foremost tangent line among

tangent lines tangent to at least one of the two mopping modules along the advance direction of the robot.