

## ONEPLUS CAMERA MODULE AND ELECTRONIC EQUIPMENT

1. a magnetic camera module, is characterized in that, comprises:  
camera;

A driving device is connected with the camera head; the driving device is used for driving the camera head to rotate, and the rotation axis of the camera head is the central axis of the camera head itself.

2. The camera module according to claim 1, wherein the driving device comprises a driving component and a transmission component, and the transmission component is drivingly connected between the camera head and the driving component;

The driving component is used for driving the transmission component to rotate, so as to drive the camera to rotate.

3 . The camera module according to claim 2 , wherein the drive assembly comprises a flat motor, the transmission assembly comprises an output shaft of the flat motor, the output shaft and the rotation of the camera head Shaft coaxial setting;

One end of the output shaft away from the drive assembly is connected with the camera head; when the drive assembly drives the output shaft to rotate, it drives the camera head to rotate.

4 . The camera module according to claim 2 , wherein the transmission assembly comprises a first magnetic member, and the first magnetic member is connected to the camera head; the driving assembly comprises a second magnetic member and an electromagnetic iron group;

The second magnetic member is disposed opposite to the first magnetic member, and the second magnetic member is used to drive the first magnetic member to suspend, so that the camera is suspended relative to the second magnetic member;

The electromagnet group is arranged around the circumference of the camera, and the electromagnet group is used to drive the first magnetic member to rotate, so as to drive the camera to rotate.

5 . The camera module according to claim 1 , wherein the camera module further comprises a bracket, and the bracket is used to support the camera; 5 .

The bracket is connected between the driving device and the camera; the driving device is used to drive the bracket to rotate, so as to drive the camera to rotate around the rotation axis.

6 . The camera module according to claim 5 , wherein the bracket comprises a connected bottom plate and a carrier, the bottom plate is connected with the driving device, and the carrier is away from the side of the bottom plate. 7 . for installing the camera.

7 . The camera module according to claim 6 , wherein the circumferential outer sidewall of the carrier is a convex arc surface, and the circumferential outer sidewall of the carrier is used to wrap the first flexible circuit board, so the first flexible circuit board is used to connect the camera and the main board of the electronic device.

8. The camera module according to claim 7, wherein the distance from the edge of the bottom plate to the center of the bottom plate is greater than the outer radius of the carrier;

The bottom plate is provided with a support surface for supporting the first flexible circuit board, and the support surface is arranged around the outer edge of the carrier.

9. The camera module according to any one of claims 1 to 4, wherein the camera module further comprises a limit component, the limit component is connected with the camera, and the limit component is to limit the rotational travel of the camera.

10 . The camera module according to claim 9 , wherein the limiting assembly comprises a limiting column and a travel groove, and the limiting column is slid ably connected with the travel groove;

The limiting column is fixedly arranged on the side of the driving device close to the camera, and the travel groove is arranged on the side of the camera close to the driving device; or

The limiting column is arranged on the side of the camera close to the driving device, and the travel groove is arranged on the side of the driving device close to the camera.

11 . The camera module according to claim 9 , wherein the rotation stroke of the camera head is less than or equal to  $180^{\circ}$  .

12 . An electronic device, characterized in that, comprising the camera module according to any one of claims 1 to 11 .

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