

ABSTRACT

SELF-PROPELLED CARRIAGE USING SPHERICAL-BODY-DRIVEN MODULE

A self-propelled carriage 10a having spherical-body-driven modules 10 attached to a bottom of a carriage frame 11 through suspension mechanisms 12, the spherical-body-driven modules 10 each having a spherical body 14, a first drive wheel 15 and a second drive wheel 16 in contact with the spherical body 14 respectively from an X-axis direction and a Y-axis direction, a first uncontrolled-ball bearing mechanism 17 and a second uncontrolled-ball bearing mechanism 18 respectively on a side opposite to the first drive wheel 15 and on a side opposite to the second drive wheel 16 and respectively receiving reaction force from the first drive wheel 15 and reaction force from the second drive wheel 16, a third uncontrolled-ball bearing mechanism 19 at an upper position of the spherical body 14 and receiving a load applied on the spherical body 14, and a base 20 supporting these aforementioned components.

[Selected drawing] FIG.1