

SPHERICAL ROBOT

Description:

Spherical robots capable of moving according to different trajectories are already known, but they tend to suffer, on many occasions, from certain drawbacks, such as that their movement is not continuous but oscillatory, complex operation and control or the need for precision manufacturing of the interior of the sphere that would make it more expensive to manufacture. Thus, the present invention refers to a spherical robot, in which the drive means are simple in constitution and operation, with a reduced number of components and which also allow both rectilinear and curvilinear movement, that is, it is capable of moving in different directions and according to different trajectories, being constituted by a spherical casing in which drive means are housed that act on the internal surface of said casing to cause its displacement. Furthermore, this spherical robot ensures correct actuation of the drive means, even if the internal surface of the spherical housing has irregularities.

Keywords:

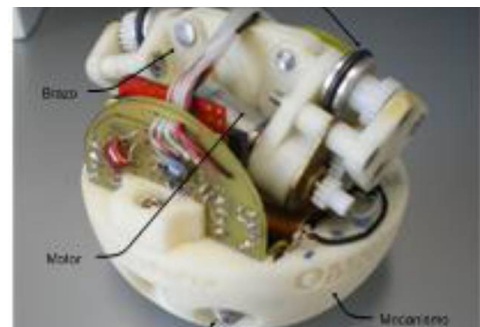
[Robot](#), [Toy](#), [Sphere](#), [Inspection](#)

Sectors:

[Engineering](#)

Areas:

[Mechanics](#), [Robotics](#)



Advantages:

Among the advantages of this new invention, the following stand out: • Small size compared to other robots on the market, which means that it can be inserted in small places. • Possibility of manufacturing in a larger size. • Its movement occurs in any direction of the plane and its movement is uniform and controlled, being able to make turns without problems. • There is no possibility of locking the interior mechanism. • The outer casing or sphere that protects the mechanism does not have to be manufactured in a precise way, thus reducing manufacturing costs considerably. • The control of the movement of the robot is carried out in a very simple way, being easy to implement.

Uses and Applications:

The present technology can find its field of application in the area of toys, the inspection of hard-to-reach ducts, the military or security sector.

Patent Number: ES2351457

Applicants: Universidad De Málaga

Inventors: Juan Antonio Cabrera Carrillo, Francisco Manuel Garcia Vacas, Pablo Giner Abad, Mariano Jaimez Tarifa, Antonio Ortiz Fernandez, Juan Jesus Castillo Aguilar, Fernando Nadal Martinez, Antonio Simon Mata

Filing Date: 06/08/2010

Protection Level: National (Spain)

Processing Status: Spanish patent