

Title (en)
CLEANING ROBOT AND MOTION CONTROL METHOD THEREOF

Title (de)
REINIGUNGSROBOTER UND BEWEGUNGSSTEUERUNGSVERFAHREN DAFÜR

Title (fr)
ROBOT DE NETTOYAGE ET SON PROCÉDÉ DE COMMANDE DE MOUVEMENT

Publication
EP 4241639 A4 20240228 (EN)

Application
EP 22813078 A 20220317

Priority

- CN 202210112901 A 20220129
- CN 2022081489 W 20220317

Abstract (en)
[origin: EP4241639A1] A cleaning robot and a motion control method thereof are provided. The cleaning robot comprises: a cleaning element, which is configured to be in contact with a surface to be cleaned and form a chamber with the surface to be cleaned; a suction module, which is communicated with the chamber and is configured to draw air in the chamber to form negative pressure so that the cleaning element is adsorbed on the surface to be cleaned; a driving module, which is connected with the cleaning element and drives the cleaning element to rotate with the axis perpendicular to the surface to be cleaned as the rotation axis; a controller, which is coupled to and controls the suction module and the driving module; and a bridge, which connects a plurality of cleaning elements and the driving module, wherein at least one of the cleaning elements is configured to be able to deflect with respect to the bridge, so as to enable the rotation axis corresponding to the cleaning element to be staggered with the rotation axes corresponding to other cleaning elements to form an included angle. Compared with the existing cleaning robot, the cleaning robot described above can adapt to the surface to be cleaned with a certain curvature, and can meet the cleaning requirements of different materials at different degrees of dirt, which has a wider application range.

IPC 8 full level
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CPC (source: CN EP KR US)
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Citation (search report)

- [XA] CN 113455953 A 20211001 - LUO JICHUAN
- [XA] US 2013037050 A1 20130214 - CHAO CHI-MOU [TW]
- [XA] CN 104414573 A 20150318 - ECOVACS ELECTRICAL CO LTD
- See also references of WO 2023142243A1

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