

Title (en)

AUTONOMOUS CLEANING ROBOT WITH VERTICALLY MOVABLE CLEANING HEAD

Title (de)

AUTONOMER REINIGUNGSROBOTER MIT VERTIKAL VERSCHIEBBAREM REINIGUNGSKOPF

Title (fr)

ROBOT DE NETTOYAGE AUTONOME POURVU D'UNE TÊTE DE NETTOYAGE DÉPLAÇABLE VERTICALEMENT

Publication

EP 4179939 A1 20230517 (FR)

Application

EP 22205579 A 20221104

Priority

FR 2111899 A 20211109

Abstract (en)

[origin: CN116098517A] An autonomous cleaning robot (2) includes: a main body (3); a cleaning head (5) mounted so as to be movable relative to the body (3) between a deployed position and a retracted position; a suction tube (11) mechanically connecting the cleaning head (5) to the body (3) and movable between a first tube configuration and a second tube configuration. The autonomous cleaning robot (2) is configured such that a change in configuration of the suction tube (11) from the second tube configuration to the first tube configuration causes a movement of the cleaning head (5) from the deployed position to the retracted position according to a retracted stroke, which in particular comprises a retracted stroke portion during which the cleaning head (5) is moved from the deployed position to the retracted position. The cleaning head (5) is moved relative to the main body (3) according to a displacement movement comprising at least a vertical component, thereby causing the cleaning head (5) to lift.

Abstract (fr)

Le robot de nettoyage autonome (2) comprend un corps principal (3) ; une tête de nettoyage (5) montée mobile par rapport au corps principal (3) entre des positions déployée et rétractée ; un tube d'aspiration (11) reliant mécaniquement la tête de nettoyage (5) au corps principal (3) et déplaçable entre des première et deuxième configuration de tube. Le robot de nettoyage autonome (2) est configuré de telle sorte qu'un changement de configuration du tube d'aspiration (11) de la deuxième configuration de tube à la première configuration de tube entraîne un déplacement de la tête de nettoyage (5) de la position déployée à la position rétractée selon une course de rétraction comprenant notamment une portion de course de rétraction au cours de laquelle la tête de nettoyage (5) est déplacée par rapport au corps principal (3) selon un mouvement de déplacement qui comporte au moins une composante verticale de manière à entraîner un soulèvement de la tête de nettoyage (5).

IPC 8 full level

A47L 9/24 (2006.01)

CPC (source: CN EP)

A47L 5/22 (2013.01 - CN); **A47L 9/00** (2013.01 - CN); **A47L 9/02** (2013.01 - CN); **A47L 9/04** (2013.01 - CN); **A47L 9/24** (2013.01 - EP); **A47L 9/28** (2013.01 - CN); **A47L 11/00** (2013.01 - CN); **A47L 11/40** (2013.01 - CN); **A47L 11/4044** (2013.01 - CN); **A47L 11/4052** (2013.01 - CN); **A47L 11/4061** (2013.01 - CN); **A47L 11/4072** (2013.01 - CN); **A47L 11/4094** (2013.01 - CN); **A47L 2201/00** (2013.01 - EP)

Citation (applicant)

WO 2018151424 A1 20180823 - LG ELECTRONICS INC [KR]

Citation (search report)

- [AD] WO 2018151424 A1 20180823 - LG ELECTRONICS INC [KR]
- [A] KR 20140070250 A 20140610 - SAMSUNG TECHWIN CO LTD [KR]
- [A] KR 20140082218 A 20140702 - RASTECH INC [KR]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4179939 A1 20230517; **EP 4179939 B1 20240904**; CN 116098517 A 20230512; FR 3128864 A1 20230512; FR 3128864 B1 20231027

DOCDB simple family (application)

EP 22205579 A 20221104; CN 202211399718 A 20221109; FR 2111899 A 20211109