Title (en)
ROBOTIC WINDOW-CLEANING SYSTEM AND SAFETY CORD SYSTEM THEREFOR

Title (de)
ROBOTISCHES FENSTERREINIGUNGSSYSTEM UND SICHERHEITSSEILSYSTEM DAFÜR

Title (fr)
SYSTÈME DE NETTOYAGE DE FENÊTRE ROBOTIQUE ET SYSTÈME DE CÂBLE DE SÉCURITÉ ASSOCIÉ

Publication
EP 3509466 A1 20190717 (EN)

Application
EP 17757544 A 20170825

Priority
- GB 201615299 A 20160908
- EP 2017071416 W 20170825

Abstract (en)
[origin: GB2553562A] A safety cord system for a window cleaning robot, the system comprises an anchor component 20, a cord 30 and a cord handling unit 10. The anchor component 20 is configured so as to be coupled to the window 1000 itself or to a location adjacent the window (e.g. on a wall adjacent the window) thereby anchoring the system in place. The cord handling unit 10 is coupled to one of the anchor component 20 and the robot 1 and includes a spool (40, fig 2) and a braking mechanism (50, 60, fig 2). The spool (40, fig 2) automatically rotates about a winding axis A in a winding direction, the cord 30 thereby being wound around the spool (40, fig 2). A first end of the cord is secured to the spool (40, fig 2), with the cord 30 extending from this first end to a second end, which is configured to be secured to the other of the anchor 20 and the robot 1. The braking mechanism (50, 60 fig 2) is configured to halt the unwinding of the cord 30 from the spool (40, fig 2), thereby halting the robot's 1 fall from the window 1000 and is activated when the angular velocity of the spool (40, fig 2) exceeds a certain threshold.

IPC 8 full level
A47L 1/00 (2006.01); **A47L 1/02** (2006.01); **A47L 3/00** (2006.01); **A47L 3/04** (2006.01)

CPC (source: EP GB)
A47L 1/00 (2013.01 - EP); **A47L 1/02** (2013.01 - EP GB); **A47L 3/00** (2013.01 - EP); **A47L 3/04** (2013.01 - EP GB); **B65H 75/42** (2013.01 - GB); **B65H 75/4418** (2013.01 - GB); **B65H 75/4447** (2013.01 - GB)

Citation (search report)
See references of WO 2018046316A1

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 MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
GB 201615299 D0 20161026; **GB 2553562 A 20180314**; EP 3509466 A1 20190717; EP 3509466 B1 20220713; WO 2018046316 A1 20180315

DOCDB simple family (application)
GB 201615299 A 20160908; EP 17757544 A 20170825; EP 2017071416 W 20170825