

Title (en)
SYSTEM FOR AUTOMATICALLY MOVING AN ARTICULATED ARM, PARTICULARLY OF A LOADER CRANE, TOWARDS A TARGET POSITION

Title (de)
SYSTEM ZUM AUTOMATISCHEN BEWEGEN EINES KNICKARMS, INSBESONDERE EINES LADEKRANS, IN EINE ZIELPOSITION

Title (fr)
SYSTÈME DE DÉPLACEMENT AUTOMATIQUE D'UN BRAS ARTICULÉ, EN PARTICULIER D'UNE GRUE AUXILIAIRE, VERS UNE POSITION CIBLE

Publication
EP 3556711 B1 20200304 (EN)

Application
EP 19153048 A 20190122

Priority
IT 201800004677 A 20180418

Abstract (en)
[origin: EP3556711A1] A system for automatically moving an articulated arm (101) towards a target position, comprising:- said articulated arm (101) comprising a plurality of consecutively connected bodies forming an open kinematic chain with an end-effector (105), having a plurality of translative and/or rotative degrees of freedom and a plurality of actuators for moving said bodies;- a plurality of sensors associated to said bodies, adapted to supply signals indicative of linear or angular positions such to enable to determine the absolute coordinates of the end-effector (105);- a user interface device configured to command the articulated arm by an operator;- an emitting probe (5) positioned in the target position, and at least one first (1), one second (2), one third (3) and one fourth detecting probes (4), each positioned in a predetermined different point of the articulated arm, and adapted to communicate with the emitting probe so that each emitting probe-detecting probe pair provide a signal indicative of the relative distance thereof;- a control unit operatively connected to said actuators, sensors, emitting probe, detecting probes, and user interface device, said control unit being configured to, at each sampling instant of a plurality of subsequent sampling instants:- estimate, based on the signals from said first, second, third, fourth emitting probes (1, 2, 3, 4) and from said detecting probe (5) the actual absolute position of the emitting probe (5);- determine the actual absolute position of the end-effector (105) based on the signals from said sensors;- actuate the actuators so that the end-effector (105) moves towards the estimated actual absolute position of the emitting probe (5).

IPC 8 full level
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CPC (source: EP)
B66C 13/04 (2013.01); **B66C 13/18** (2013.01); **B66C 13/40** (2013.01); **B66C 13/46** (2013.01)

Cited by
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DOCDB simple family (publication)
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