

Title (en)

METHOD FOR CALIBRATING A PARALLEL MANIPULATOR

Title (de)

VERFAHREN ZUR KALIBRIERUNG EINES PARALLELMANIPULATORS

Title (fr)

PROCEDE POUR ETALONNER UN MANIPULATEUR PARALLELE

Publication

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Application

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Priority

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Abstract (en)

[origin: DE19818635A1] The ends of bars having variable lengths (actuators 3) or rods (8') having a constant length are attached to a mobile platform (2) by means of joints (5). The other ends of the bars (3, 8') are connected to a platform (1) by means of joints. Said platform is moved by actuation of actuators (3, 3') characterized by a counter index (i) to different positions characterized by an additional counter index (j). The parameters directly and/or indirectly characterizing the position and orientation of the nonmobile platform (1) in relation to the mobile platform are measured. The actual hinge point coordinates are calculated on the basis of a system of equations according to the number and type of parameters to be measured. Instead of measuring all parameters fully characterizing the position and orientation of the mobile platform, only those parameters characterizing the position and orientation of the mobile platform are measured that can be determined with little complications from a metrological point of view and that make it possible to automate the calibration process.

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