Title (en)

METHOD AND APPARATUS FOR ONLINE CALIBRATION AND FOR GUIDING A MULTIAXIS JOINTED-ARM ROBOT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ONLINE KALIBRIERUNG UND ZUM FÜHREN EINES MEHRACHSIGEN GELENKARMROBOTERS

Title (fr)

PROCÉDÉ ET DISPOSITIF DE GUIDAGE D'UN ROBOT À PLUSIEURS AXES SOUS FORME DE BRAS ARTICULÉ

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Application

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Abstract (en)

[origin: WO2014139938A1] The invention relates to a method or an apparatus for online calibration and for guiding a multiaxis jointed-arm robot (2) that, with an end effector (4), travels along a preprogrammed path stored in its robot controller (5). The jointed-arm robot (2) moves the end effector (4) along the programmed path during a reference journey with an experimentally performed process and in so doing carries along a test sample from an external guidance system (8). During the robot movement, the position and orientation of the test sample (9) are recorded by an external, in particular optical measuring device and a guidance computer (14) of the guidance system (8). In this case, position, orientation and path errors are detected online and correction values are ascertained and output to the robot controller (5). The robot controller (5) uses the correction values to correct the programmed path as appropriate. The external guidance system (8) and/or the robot controller (5) store the correction values, and in later operation the thus corrected programmed path is travelled along possibly without an external guidance system (8).

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