

Title (en)

METHOD AND APPARATUS FOR CALIBRATING A NON-CONTACT RANGE SENSOR

Title (de)

VERFAHREN UND GERÄT ZUR KALIBRIERUNG EINES BERÜHRUNGSLOSEN ABSTANDSSENSORS

Title (fr)

PROCEDE ET APPAREIL POUR CALIBRER UN CAPTEUR D'IMAGES SANS CONTACT

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Application

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Abstract (en)

[origin: WO0007146A1] A method for calibrating a non-contact range sensor comprises the steps of employing the range sensor to obtain a range image of an object to be inspected. The range image is registered with a reference image of the object thereby providing registered data. The reference image may be derived through computer assisted drawing (CAD) data. Normal deviations between the registered data and the reference image are computed. Noise is filtered from the normal deviations. A plurality of bias vectors and a covariance matrix are estimated based on the normal deviations, stored in memory as a lookup table comprising geometric correction factors for the sensor. Images of the object subsequently obtained by the sensor are compensated in accordance with the lookup table.

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