

Possibility of calibration optical dots-plates for 3D scanners

Marcin KRAWCZYK, Konrad KOBIELA *

* *Corresponding author: Cracow Univesity of Technology Laboratory of Coordinate Metrology, al. Jana Pawła II 37, PL31-864 Cracow, konrad.kobiela@mech.pk.edu.pl*

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3D scanners based on the photogrammetry rule have become widespread in industry and medicine.

Important, or even the most important issue for increasing the accuracy of measurement is proper scanner aligned. It is done by using calibration plate and it allows to reduce errors resulting from the imperfection of the parts and their assembly. What is more, internal (for example, misalignments and shape deviation of lenses in the camera) and external (misplaced parts on the scanner frame) errors are distinguished.

Periodic control of the calibration equipment is one of the requirements of quality standards. In following work conception of the calibration measurement for the calibration plates with grid pattern is discussed. Authors have considered a few coordinate measuring systems for the measuring process of the calibration plate. One of the prototypes is shown at Fig. 1.

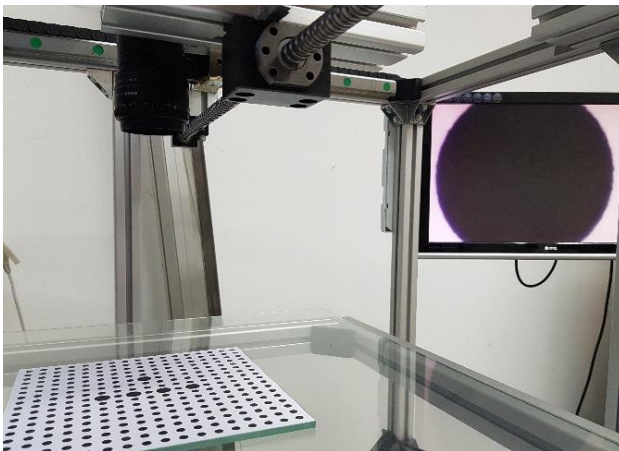


Fig. 1.
Prototype of measuring microscope with 3D scanner's calibration plate.