
MODEL OF A ROBOT-TESTER FOR EVALUATING THE QUALITY OF LED CRYSTALS

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Abstract

The paper deals with a prototype robot designed and constructed for automated testing of electronic components, namely LEDs and LED matrices. The robot is intended to operate as a part of an automatic production line and meets all metrological requirements. The distinctive features of this design are compactness and cheapness. In this paper we describe the technology of testing LEDs in detail and present all robot components and sensors, as well as an algorithm for testing the hardware and software system. The results obtained are analyzed and the prospects for further development of this technology are presented by introducing elements of machine vision.

Keywords

Automated process, robot-tester, elements of machine vision, light-emitting diode. 3D printer

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