

Defect Detect System of the C-type Mask Based on Machine Vision

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ABSTRACT

The research develops a machine vision to inspect the C-type mask. The image process technique is divided into two parts. The first part is an image preprocess, including color space transformation, image filtering and morphology. The second part is defect inspection, including image positioning and image subtracting. The main objective to achieve inspecting C-type mask automatically. There are three types of defects of C-type mask, including holes, dirty spots, bad soldering. First, we use image preprocessing to detect the outlines of masks. Then, the corner detection is employed to obtain the characteristics of the outlines. Those characteristics are compared with the characteristics of standard mask. The defects of test images are thus detected through the subtracting images. Finally, the proposed method is used to inspect practical C-type masks, and the results show that the proposed method can obtain successful recognition of C-type mask defects.

Keywords : C-type mask ; Machine vision ; Image process ; Defect inspection

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