Design and Implementation of an Automatic Wire Cutting and Striping Machine for Small Scale Industry

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Declaration

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Abstract

The trend in the recent industry is to move towards automation. This is driven by a number of factors such as increasing accuracy and decreasing human errors. This dissertation provides full overview of the development and design of the automated wire cutting and striping machine for small scale industrial application. The proposed system is put into practice in real time

Manual approach is currently used to cut and measure wire that takes more time with manpower. The effectiveness and accuracy obtained by manual method is really poor. The specific aim of the automated wire - cutting system is to cut the needed wire length in the required number of parts. By utilizing the developed system, we can achieve low cost cutting with reduced cutting process time. This system is less complex in terms of user friendliness and also portable.

Keywords: Automatic wire cutting, transportable, cost- effective

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List of Abbreviations

ARM - Advanced RISC Machines

CPU- Central Processing Unit

DC - Direct Current

IC - Integrated Circuit

LED - Light Emitting Diode

LCD - Liquid Crystal Display

MEP - Mechanical, Electrical and Plumbing

PIC- Programmable Integrated Circuit

PLC - Programmable Logic Controller

RPM – Revolutions Per Minute