

**UNIVERSITI TEKNOLOGI MARA**

**DEVELOPMENT OF  
PORTABLE CRIMPING WIRE  
MACHINE**

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## **ABSTRACT**

Crimping wire is widely used in electrical industries, but small-sized and medium-sized companies usually use manual crimping wire rather than crimping wire machine. The objective is to design and analyze a portable crimping wire machine that is cheap and can be capable in any place and to fabricate a budget machine that is affordable for employers in small and medium-sized industries and citizens. Crimping wire machines are too expensive for small-sized and medium-sized industries to buy. By comparing and contrasting my machine with the available machine in the market I could obtain a better machine. I hope this machine could speed up the mass production, affordable to buy and capable in anyplace. In conclusion, production using machines is more efficient and productive compared to manual labour.

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# CHAPTER ONE: INTRODUCTION

## 1.1 Background of Study

All over the world, especially the countries that have an inflated cost of living, seeks for affordable and useful machines to utilize them in their industries. Often, small-sized, and medium-sized electrical industry companies, they usually choose to use a lot of manpower to fabricate some product over machines. In comparing to a large-sized companies, employers or owners of the small-sized and medium-sized companies do not have extra funds to spend on their company. This method of spending money to buy machines is however not an effective way of spending their funds wisely. In addition, manually fabricating a product by the energy of human is such a time-consuming. This time consumption is the most avoided thing by all people, in whatever it is, since we could not buy time and must do everything not beyond the time provided otherwise it will be incomplete or imperfect. Of course, using machines is less time-consuming and can save manpower or human energy but it is much pricey which seems not affordable for the companies mentioned earlier.

Furthermore, the size of any machine uses a big space. This issue gives the reason the employers or owners need to rent another place to put the machine. Therefore, by making an affordable and portable automatic crimping connector wire, the problem faced is no longer a big issue since it can ease the workers to do their work efficiently and productively. This machine is not as expensive as the other machines, and its size is compatible and portable for workers to bring it wherever they want. In discussing the topic of machines, manpower also must be knowledgeable in handling the machine. This is for the fact that not all employees can run the machine because they need to have known about the machines first.