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# REVIEW PAPER ON AUTOMATIC CABLE CUTTING MACHINE

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## ABSTRACT

This Paper gives the point by point data about the plan and improvement of programmed wire cutting machine. At present regular technique is utilized for wire cutting and estimating which requires some investment which requires labour. The exactness acquired by traditional strategy is likewise poor. The automatic framework tackles the work issues it saves cost, increments exactness, diminishes human mistakes. By utilizing automatic machine our targets to accomplish minimal expense cutting which works quick what's more, decreases cutting time. The viable goal of programmed wire slicing machine is to cut required length of wire in required number of pieces. This machine is straightforward and versatile.

**Keywords:** Microcontroller, DC Motor Driver, LCD Display, Keypad, Cutter.

## I. INTRODUCTION

Wire/cable cutters, otherwise called slanting forceps, and wire strippers are two of the most frequently utilized compact handheld devices in a great many businesses. Wire cutters comprise of forceps that have sharp jaw edges that cut a part of modern wires. Also, wire strippers eliminate the defensive covering of wires or strips the end segments of the wire to interface them to terminals, breadboards, different wires, and so on **[**Bhambulkar, A.V. ,2011;Ganorkar R. A. et al. ,2014;Rahul Mishra et al.,2013;John, B., 2012**]**. This issue can be effectively solved by the industry's automation system. The automated solution resolves labour issues, resulting in cost savings, increased accuracy, and a reduction in human errors. After researching numerous electrical and electronic industries, we've come to the conclusion that although these sectors have automated some of their operations in recent years, they still use people for labor-intensive tasks like wire cutting and packing. The company's growth and financial success will benefit from the introduction of automation to these fundamental procedures because it enhances the system in numerous ways. One such sector discovered that they needed a very effective, quick, and affordable solution for cutting different lengths of wires that are needed for making panels. Traditional wire cutting and measurement methods call for human labour. A wire cutting machine "regularly takes care of the wire in on a reel, denotes the wire utilizing an inkjet or hot stamp printing component, cuts the wire, and afterward curls the completed item on one more reel or stacks it in an aide channel" . A wire cutting/stripping machine generally has a pivoting edge that follows the information link and strips or cuts away the protection. The proposed gadget will consequently decide the length of the wire prior to cutting it. The task is assembled utilizing Arduino, which is versatile and easy to utilize. The undertaking is based on the adaptable and easy to understand Arduino ATmega328 microcontroller stage. The structure can check wire length definitively as per given input. The motors are driven by miniature regulator with required speed (commotion per meter). The cutting gadget is unequivocally planned to assessed wire length in real association.

## II. PROPOSED METHODOLOGY

The fundamental need of programmed wire slicing is to cut the wire of required length in required number of pieces, without work, proficiently. So we chose to make a venture named 'Programmed wire cutting machine. For that we concluded a few determinations given beneath. Like to cut required length of cable, The breadth of

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wire ought to be consequently movable, The spool is given to store wire stock, Guide tubes are given to keep wire in straight heading. For making of the programmed wire cutting machine we will follow this method underneath - So we, right off the bat, chose to cause a virtual plan of the task and afterward we to finish that a last plan for project. The human undertakings in electrical wiring are high and the material used for the gathering of the wires is costly. Appropriately it should be used truly. Subsequently, this endeavour is proposed to want to restrict the human undertakings and to avoid the wastage of the wires. This system can definitively gauge wire length and cutting machine can cut wire into number of pieces. The structure works deftly by using authentic data given by control centre and showing the information given on screen. The targets of this strategy are to design and foster a redid wire slicing machine to accomplish insignificant effort cutting. It works quick and decreases the cutting time. This gear isn't coordinated utilizing tangled parts. This machine is essential and more modest. This machine is organized utilizing point bars, rollers, direct chambers, shaper and controller unit to control the whole development of machine. The reasonable goal of the changed wire slicing machine is to cut required length of wire in required number of pieces. So,

- We can control the machine using mobile phone / Laptop using WiFI
- There are buttons like Fwd, Back, Left, Right on the screen with the sensor data
- The Real time video also can show on the screen

## III. BLOCK DIAGRAM

As shown in the diagram, Arduino board the main microcontroller ATmega328 is use, The pipe is inside the pipe holder run by dc motor. Touch sensor is place according to length of the cable pipe we need When the sensor send the signal to controller then pipe holder will stop and servo shaft moves down to move sawtooth blade to cut the cable The cutted cable will move downward collection box At the same time there will be counting programming to count the number cable pieces and will be displayed.

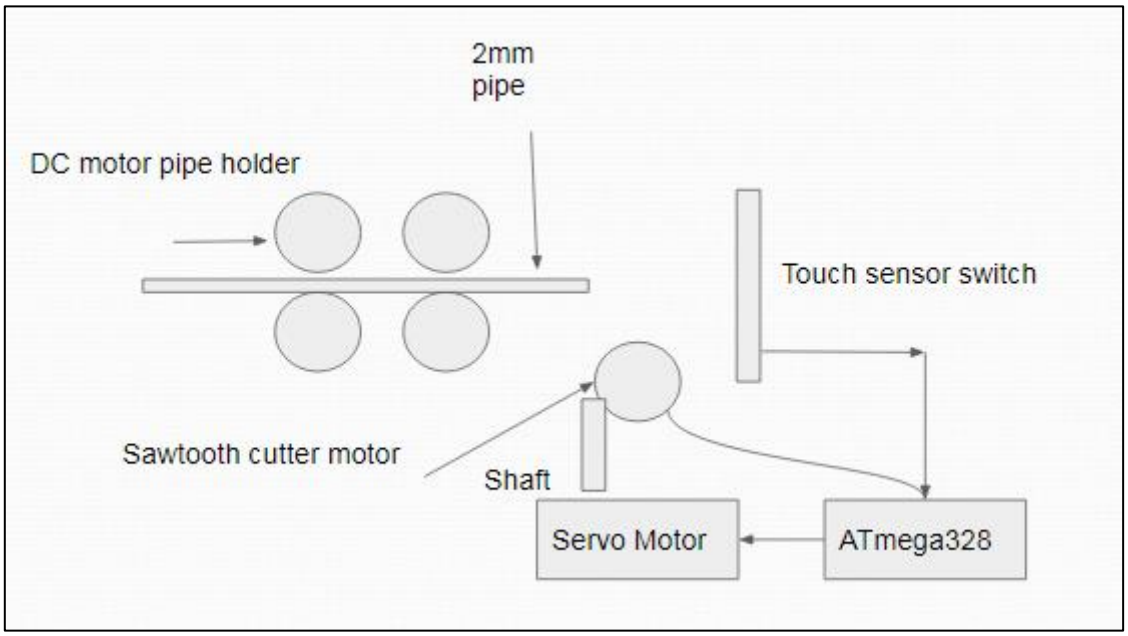


**Fig. 1 :-** Block Diagram

## IV. FUTURE ADVANTAGES

1. It will accompany short plan, can be with 5mm link by the two finishes stripping, half stripping, centre striping with many stages, and entire stripping;

2. This machine will accompany stable execution, simple activity and LCD;

3. Fine workmanship, wonderful appearance; it very well may be the best option of link cutting machine;

4. It is intended for wire handling production lines, upset gadget processing plants, plug makers and other any industrial facilities who need link wire stripping machine.

5. It is additionally suit for strip cutting, heat contract tube cutting and packaging cutting;

6. It will accompany low commotion and minimal expense of energy.

## V. CONCLUSION

Automatic cable/wire cutting machine is essentially important for organizing the things in the business unequivocally tremendous scope endeavours where enormous scope producing is finished. The machine moreover diminishes the undertakings of the workers by diminishing the time enjoyed on material managing. The application locale of this machine is very wide in endeavours where computerization is gathered. We have proposed a system that would grow the creation rate and precision of material managing the structure. The structure would seclude objects subject to their overshadowing and weight agreeing to need by the client. Also, we can change the system as shown by the need. To exhibit the utilization of the framework, this paper is planned. This framework slices the wire as indicated by the gave information, which brings about updating the computerization in the businesses. Likewise it lessens the human endeavours and blunder rate in creation and misfortune for enterprises.

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