Arduino Based Paper Cutting Machine

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PROBLEM STATEMENT

Arduino Based Paper cutting Machine for paper cutting machine for children to do their crafts work:

TEAM MEMBERS
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INTRODUCTION

This Arduino Based Paper cutting Machine plays a very important role, as they have a very great impact on the large scale of paper cuts.
In a manual paper cutting machine they're by the cutting force for more number of papers is difficult, and the cutting angle of the papers would be in the slant way where the length of the paper would vary. This Drawback can be overcome by the automatic Arduino Based Paper
cutting Machine which does not require an employee or worker at the time of paper cutting. Once the paper is inserted in the machine, it starts to cut the paper automatically and thus the production rate increases. The concept of paper cutting machine evolved during improper paper cuts, which also involves wastage of time while measuring different lengths. On this concept we built an Arduino paper cutting machine for children to do their crafts work: The purpose of developing a micro paper cutting machine to avoid cuts on a child's finger.

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IDEA GENERATION

The designs generated for our project are then implemented in the prototyping phase of the project. The specific steps taken in this stage can be found. It consists of DC Motor and

a slider module. The DC Motor is used to achieve very precise positioning and/or speed control of the synchronous belt that guides the slider in positioning. The research presents the development of a slider cutting machine that can cut or engrave most of the flat-sheet materials. It has only 2 axis direction, the X and Y axis that is operated by DC Motor and where the slider diode is placed and controlled. The Arduino software is used for programming.

The Arduino UNO and the DC Motor that serve as the brain of the machine. The Arduino UNO that has been used is a programmable controller. So, the input designs and sketches will be from its compatible and inputs will be downloaded to the Arduino and the microcontroller itself commands what the DC Motor with 4-Pin Motor Driver L298N will do motor control operation. When the control button of X-axis is operated the paper or carboard sheet moves to its respective length towards the cutting area. Now the control button of Y-axis is operated then the cutting solid part moves towards the Y directions where shear the paper.

PROTOTYPE IMAGES