

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN, ANALYSIS AND  
FABRICATION OF MINI TAFFY  
PULLER**

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## **ABSTRACT**

The Mini Taffy Puller Machine is an innovation inspired by the existing Taffy Puller Machine. Currently, people are staying at home due to the pandemic. Thus, they're constantly bored and some of them have lost their job. So with this machine, it may benefit some people to start a business or fill their free time by making candy. The device will be designed with innovations that will be easier and safe to handle so that it is safe for children. From the survey that has been conducted using Google Form, most respondents agree that this device will help people start a small business, hobby enthusiasts, and people with hypoglycemia. By fabricated this device, it will bring a huge impact on taffy making since it will improve the process.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of Study**

Every student of Mechanical Engineering course has to conduct a Final Year Project where students have to innovate a device that can benefit the users of the device. For this semester, students need to choose a title on their own or that has been suggested or offered by the Supervisor.

The first step of this project is to find the problems in the existing device. The title of the project is Mini Taffy Puller machine. This project is basically about the innovation of the existing Taffy Puller machine which commonly used in factories that make candy products [1]. The problem with the existing Taffy Puller machine is that it comes in a large size that will take up a lot of space. With this Mini Taffy Puller machine, people can make their own taffies at home or wherever they want at any time. Without Mini Taffy Puller machine, they have to use their hands to stretch and fold the candy to get a good texture [2]. However, it requires a lot of energy and can cause serious muscle injuries. Some ideas about the materials and shapes that can be used to solve the product are the next step to do after defining and analysing the problem. Several designs have been sketched out to make the product better and safer to use by various ages. After that, the three-dimension (3D) model of the prototype are constructed using SolidWorks software. Finally, the testing of the prototype is conducted to see if it is functioning the way it is needed and does it safe to use for various types of age.

As a student of Diploma in Mechanical Engineering, it is a duty to provide new technology to the society for a better future, also it is concerns to seek the need of reduction of human efforts in the places where the health of a human is exposed to certain risks.

### **1.2 Problem Statement**

The Mini Taffy Puller machine can help people start small businesses by making candy products. This is due to its small size can be placed anywhere because it does not