

UNIVERSITI TEKNOLOGI MARA

**AN AUTOMATIC REMPEYEK
MACHINE**

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ABSTRACT

Rempeyek is one of the most popular traditional snacks in Malaysia. However, the process of making rempeyek needs to be done individually and manually step by step. It requires a lot of energy, time, and cost. In addition to that, an automatic rempeyek machine is being made in order to speed up the process so there will be a lot of rempeyek produced with the same quality, taste, and texture at a certain time. This project requires design skills, dynamic theories, selection of the right materials that can be used, a lot of research, and study of other similar machines in order to understand properly the mechanism used. At the end of the project, the automatic rempeyek machine needs to function properly. The moving mechanism of the molding plate should move properly, and the frying compartment must supply the right amount of heat needed for the oil to boil. In conclusion, this automatic rempeyek machine will be a greater help for those who need it such as the small industries or seller who sell rempeyek to be able to use a much easier method in making rempeyek without spending too much money as the cost of the machine is still at affordable level.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Rempeyek is one of the popular traditional snacks in Malaysia that has its own unique taste, and texture and even has its own recipes which differ for some people. Nowadays, this snack is available at many conveniences store even at the petrol station kiosk, rest, and rehabilitation (R&R), and more. Some people also sell rempeyek as their source of money since it gains attention from various customers.

However, the process of making rempeyek is quite tiring for some people as it required a lot of energy and time. A person should hold the molding plate until the rempeyek is hard enough to float on the oil itself which might take around 3 to 4 minutes per plate. If it is repeated a lot of time, the hand of the person who holds the plate must be hurt and sore from holding it non-stop. Moreover, small industries that sell rempeyek commonly do everything by themselves from the scratch such as preparing the flour mixture, boiling the oil, dipping the molding plate, waiting for the rempeyek to cook, taking it out from the frying pan, and repeating the procedures until they got the right amount of rempeyek needed in a day. In addition, each day they are exposed to the hot boiling oil which might cause an accident if they are not careful when frying the rempeyek. Hence, it is quite challenging when a person wants to start a rempeyek business as they need to be discrete and patient when making rempeyek.

These problems can be reduced by using an automatic rempeyek machine. An automatic rempeyek machine which will be made by using stainless steel material and have a lot of function that can complete the process of making rempeyek. A few trays of molding plate of rempeyek shape will be attached to the machine and the machine will roll the plate to take the flour mixture and other ingredients then it is heated for a while so it will fall off easily from the molding plate into the hot oil. The use of this machine will only need to switch on the machine and observed the process until the amount of rempeyek needed is completed. The machine will run with minimum supervision.