

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND FABRICATION OF
AUTOMATIC FLOUR FILTER AND
SEPARATOR**

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ABSTRACT

The purpose of this research to study all types of flour that used by consumers in the world and find the most efficient way to get a quality flour to use in producing food by filter it using a machine which is automatic flour filter and separator. Thus, the aim is to design and fabricate a machine that can sift the flour perfectly and easily. Automatic flour filter and separator machine is equipment which is used to sift the flour to get a better quality. This machine is totally based on the automatic method that the machine contains a dc motor that powers the conveyor which is responsible to move the filter repeatedly that has been placed flour on it. The sifted flour will go into the funnel provided below and can be used by the user while the halsing found in the flour has been separated on the filter and the user can remove it. This machine is useful for the home appliances and also to the business owners that uses flour as a main ingredient for them. The machine is portable and easy to carry. Very simple mechanisms are used in this machine. A dc motor, filter and wheels .This operation also can be done by less skilled worker. The machine is made to reduce the human effort and complete the job efficiently and perfectly.

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CHAPTER ONE INTRODUCTION

1.1 Background of Study

Based on my review at our local market needs, there are different types of flour mill setup like domestic flour mills, commercial flour mills, bakery/mini flour mills and roller flour mills. Out of these, commercial one is very useful as it required low cost but also variable-since flour procure from this at commercial level. Flour Mill is the traditional process also. Generally, the flour is used in our daily life for different purposes like cake making, cookies, dumplings, pastries etc. This is the essential raw material and highly consumed in daily routine in the world. Grains should be cleaned and dried before grinding and then break split by sieving to superior or intermediate particles and other rough particles. Different types of flour in the mill like wheat, acorn, barley, bread, corn etc. are in great demand. Therefore mill is required for the flouring purpose. Flouring is done 5-6 times to get smooth flour.

1.2 Problem Statement

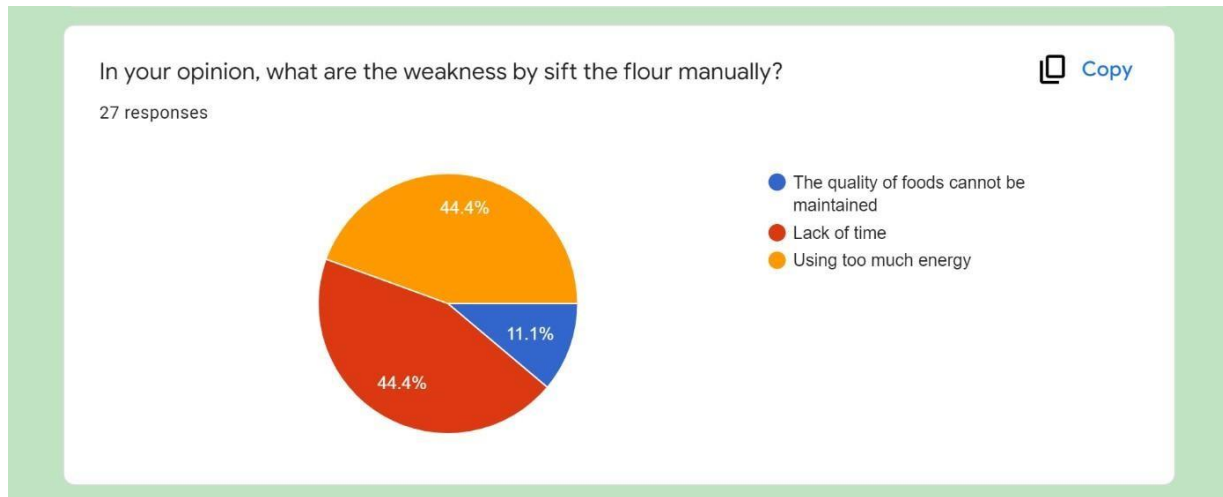


Figure 1.1 : Responses from The Respondents.

Usually, for the business owners especially food business they will use flour as a main ingredient for them. Based on the survey that had collected via google forms, there are some problems that had been identified by the respondents include housewives and business owners. Most of them