

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF A PROTOTYPE
AUTOMATIC SEED SOWING
MACHINE**

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ABSTRACT

Sowing is the most important process in farming. The existing product or machine that used for seed sowing purpose and the digging process is not required. So that it is a very tiring and time-consuming process that requires a lot of human effort. Objective for this project is to build a machine that can help in agriculture, reduce manpower and save time in farming. Thereafter, the engineering analysis used in this project are loads of seeds that can be carried by the machine. Then, rev of wheels needs to be sync with the wheel container so seed can be poured at one time. Other than that, This machine parts need to be welded together. Target customer for this project is for those who involve in agriculture like a farmer because most of them are elderly. Besides, it can save a lot of time and can reduce manpower. Material that used in this project mostly are steel, so the machine is more durable and long lasting, plastic is used for containers because it is a strong and lightweight material.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	2
1.4 Scope of Study	2
1.5 Significance of Study	2
CHAPTER TWO : LITERATURE REVIEW	3
2.1 Benchmarking/Comparison with Available Products	3
2.2 Related Manufacturing Process	4
2.3 Sustainability/Ergonomic Related Items	4
2.4 Patent and Intellectual Properties	5
2.5 Summary of Literature	7
CHAPTER THREE : METHODOLOGY	9
3.1 Overall Process Flow	9
3.2 Detail Drawing	10
3.3 Engineering Calculation and Analysis	30
3.4 Bill of Materials	34

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Sowing is the most important process in farming. The existing product or machine that used for seed sowing purpose and the digging process is not required. So that it is a very tiring and time-consuming process that requires a lot of manpower. [1] Therefore, this machine works as a fully automatic seed sowing robot that automates this task. The robot uses motor for running it in desired directions. Small bracket is used for pouring seeds. The robot consists of a funnel like arrangement in order to pour seeds into a lower container. Shaft with gear like bucket teeth is used to pick up limited quantity of seeds and pour them on the ground in a steady manner in proper quantity. The front of the robot can be further fitted with a bent plate that drags on the soil to make a slot ahead of the machine before seeds are poured in it. The back portion of the robot can be fitted with a tail like bent rod that is again used to pour soil on seeds sowed thus covering them with soil. Then, the system completely automated the seed sowing process using a smartly designed mechanical robotic system. Shovel or cultivator is use at the front and the back of this machine for the digging process, the rotor used as the human hand that transfers the seed to the ground. [2]

1.2 Problem Statement

In the present scenario the main problem for this process is do not have sufficient manpower in the agriculture sector, also it consume to much time on doing this task. [1]