



AUTOMATIC SCARECROW

MUHAMAD AZIM WAFIQ BIN KHAIRUDDIN
WAN AINA FAZIRA BINTI WAN AZMAN
TAUFIQ BIN HAMDAN

SIR FADHLI DZUL HILMI BIN MOHD FAUZI

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
TERENGGANU

SEPTEMBER 2015

DEDICATION

First of all, we would like to say that we are grateful to God delicate mercy and blessing for us to complete and prepare this project. We also like to give our greatest appreciation to our supervisor, Sir Fadhli Dzul Hilmi bin Mohd Fauzi who always guide and advices in order to complete this project. There are many valuable ideas and opinion for making this project better. Besides, we would also like to give our thanks to our parents for supporting and encouraging us especially in financial matter. We sincerely thanks to all of our friend and member of staff (technicians), who always helped us in many ways and giving us extra ideas and information to complete this project.

Today, education plays a really important role especially to youth who will become a leader in the future. Technology had become an important aspect in everyday life as it existence may help us to succeed in our life. From this project, we had learn that the important of relationship between our lecturer and us as a student and how to manage the time wisely. Besides, this is the basic and experience for degree soon.

ACKNOWLEDGEMENT

Alhamdulillah and thankful to Allah for gave us strength and ideas to finish the task although we had faced a lot of problem while making progress in this project. This final report was prepared for Electrical Engineering, Mara University of Technology, in Dungun Branch. This report also is based on methods and knowledge we get from being electrical engineering student.

First of all, we would like to thanks to our supervisor, Sir Fadhli Dzul Hilmi bin Mohd Fauzi for his guidance and advice when completing the task for this project proposal. We also want to thanks the lecturers, staffs of electrical engineering for their cooperation, guidance and information.

A very thanks and appreciation to our family, seniors and society who are involve in this project. The last but not least is very special thanks to our entire friend for provide us great assistance in term of materials, effort and ideas. Finally, we would want to express our deepest thanks to everyone who involve directly or indirectly during completing this task. Hopefully, may Allah reciprocating their effort and may always be under His blessing for now and always.

Thank you

ABSTRACT

Nowadays, there are many technologies that have been created to make life being more beneficial and practical such as agricultural technology. "Farming" or "agriculture" shall include farming in all of its branches and the cultivation and tillage of the soil, dairying, the production, cultivation, growing and harvesting of any agricultural, aquacultural, floricultural or horticultural commodities, the growing and harvesting of forest products upon forest land, the raising of livestock including horses, the keeping of horses as a commercial enterprise, the keeping and raising of poultry, swine, cattle and other domesticated animals used for food purposes, bees, fur-bearing animals, and any forestry or lumbering operations, performed by a farmer, who is hereby defined as one engaged in agriculture or farming as herein defined, or on a farm as an incident to or in conjunction with such farming operations, including preparations for market, delivery to storage or to market or to carriers for transportation to market. To participate in making life become easier in agriculture, the system created that is a machine called Automatic Scarecrow. Automatic Scarecrow is a project to help reduce the energy of manpower to banishing animals from the farm. By having this machine, the work will be easier and it will also increase the production of the plant because the plant is not being disturbed by the animal anymore and the farmer that using this scarecrow will gain more profit. This project uses PIR motion sensor to act as the ON/OFF switch for all the operation in the machine. The arduino that is used will be programmed to give order to the part of the electronic that is connects to the servo motor. The servo motor is used to rotate the hand of scarecrow 90° each turn.

CHAPTER 1

INTRODUCTION

1.0 CHAPTER OVERVIEW

This chapter will cover about the introduction, objective, scope and problem statement of this project, Automatic Scarecrow.

1.1 INTRODUCTION

The theme of the project is about agriculture. Agriculture is the cultivation of animals, plants, fungi and other life forms for food, fiber, biofuel, medicinal and other products use to sustain and enhance human life. Agriculture was the key development in the rise of sedentary human civilization, whereby farming of domesticated species created food surpluses that nurtured the development of civilization.

In our daily life, fruits and vegetables are typical food that can be eaten by human beings. These foods are basically planted by the farmers in their orchard and then sell them to the fruits seller. As a farmer, they work as hard as they could to make sure that their plantation in good condition always. At the same time, they face the problem of the wild animals that always disturbs their plantation.

This project are focus in how to banish the animal away from the plant of the farmer, after doing some research that farmers had problem with wild animals that often disturbs the farmer plantation such as fruits and vegetables. Basically, they still use the scarecrow to make sure that the animal does not disturb their plantation. The farmer use the scarecrow to make sure the wild animal stay away from the plantation but still the animal nowadays do not scare of the scarecrow anymore. So the idea is to improvise the scarecrow to be more efficient to make sure that the wild animals does not disturbs the farmers plantation and automatically help the farmers with their problem.