

UNIVERSITI TEKNOLOGI MARA

EASY CHAIR (FINAL YEAR PROJECT 2)

MUHAMMAD HAZIQ AIMAN BIN MUHAMAD SYUKOR MUHAMMAD SHAFIQ ASHRAF BIN SHAMSUL KHAMAR

DIPLOMA IN ELECTRICAL ENGINEERING (ELECTRONICS)

SUPERVISOR: SIR KAMARU ADZHA BIN KADIRAN

10 JANUARY 2020

ACKNOWLEDGEMENT

We are student of Electrical Engineering Semester 5 in UITM Pasir Gudang would like to express our gratitude and wonderful feeling. Big thanks toward our lovely supervisor Kamaru Adzha bin Kadiran that give us opportunity to run this project. Also, we want to thanks to our supervisor because play an important role for the success of the project. There are so many things and new knowledge that has been gained and we thankful for that. Due to Online Distance Learning during semester 5, we would like to thanks to our parents who have being supportive towards the making of the project. Our parents have been helpful towards things such as financial support for the component of the project such as power supply and dc brushed motor.

ABSTRACT

Final Year Project (FYP) is very important in higher education diploma which is helps to combine student's learning by provide an opportunity to get some new knowledge that can develop the skills into a real life. Easy chair is one of the developments of technology with combination of Node MCU hardware and Blynk Application Software that control the prototype with or without human sitting on the chair. The combination between software and hardware will produce the complex system based on the program provided. Basically, the simulation of software is for programming or coding while hardware is more to main component that running the project. This project is innovative and creative by renovating chair to become multifunction. This easy chair is a conference software management which is flexible. It also can move automatically arrange at their fixed position when the chair not organized.

TABLE OF CONTENT

Contents

CANDIDATE DECLARATION	2
SUPERVISOR'S APPROVAL	3
ACKNOWLEDGEMENT	4
ABSTRACT	5
TABLE OF CONTENT	6
LIST OF FIGURES	8
LIST OF TABLES	10
LIST OF ABBREVIATIONS	11
CHAPTER 1	12
INTRODUCTION	12
1.0 Introduction	12
1.1 Background of Study	13
1.2 Process of the Project	14
1.3 Problem Statement	16
1.4 Objective of the Project	17
1.5 Scope of work	17
CHAPTER 2	19
LITERATURE REVIEW	19
2.0 Introduction	19
2.1 References	20
Standalone Integrated Wheel Drive Module for Use in Electric Powered W	heelchair20
In-wheel brushless DC motor for a wheel chair drive	21
Powered Wheelchair Platform for Assistive Technology Development	21
2.2 Description of Hardware	22

CHAPTER 1

INTRODUCTION

1.0 Introduction

In these present days, there are many things that were create and innovate that were made for people use. There are too many things were invented from door that need to be lock on by own to the door that can be automatically. Basically, many things were crate and innovate roughly every day. People keep on thinking and try to find solution to all the problem that happen.

What is mean by chair? Meaning of chair is a separate seat for one person, typically with a back and four legs. Chair is a daily commonly used items in life whether at the workplace, at the dining room table, also at the classroom we use chair to seat on it. We can see how important of chair to people. For our innovation project, we will make the chair can be easily used by the people, it can be used to all mankind also to the elderly person. For the elderly person, by using this easy chair this time they can walk around their house, garden or around the village easily without using their feet. They just need a handphone that can be link towards this easy chair and then they just need to seat on the chair and control it by their selves. That is how convenient and how accessible the chair is not only to the elderly but also to the people around the globe.