



اُونِيُوَرَسِيْتِي تِي كُونُوَلُو كِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

BLUE PRINT: SMART HELMET

EE241S6D

HJH ZANARIAH ZAINAL ABIDIN

NAME	STUDENT ID
MOHD LUQMANUL HAKIM BIN OTHMAN	2014885634
KHAIRIL-ANUAR BIN AHMAD RONY	2014459968
MUHAMMAD RUSYAIDI BIN RAZALI	2014498112
MOHAMMAD NUR FAISAL BIN ARIFFIN	2014295342
MUHAMMAD NASHIHIN BIN MOHD ROKHMAN	2014204098

89 / v = 89

Table of Contents

Chapter 1	4
1.0 Product description.....	4
1.1 Introduction.....	4
1.2 Purpose of development.....	4
1.3 Product concept.....	4
1.4 Application	4
1.4.1 Functions.....	4
1.5 Unique Features.....	5
1.5 Picture description.....	5
CHAPTER 2	6
2.0 TECHNOLOGY DESCRIPTION.....	6
2.1 Overview of product prototype	6
2.2 Microdisplay	7
2.3 Electric Main Board	8
2.4 Batteries	8
2.5 Earphone.....	9
2.6 Visor.....	9
2.7 Light Sensor.....	10
2.8 Microphone.....	10
CHAPTER 3	11
3.0 MARKET RESEARCH AND ANALYSIS	11
3.1 Target Market	11
3.2 Market Size and Market Share	11
3.3 Competition and Competitive Edges	11
3.3 Estimated Cost Per unit.....	11
3.5 Selling Price.....	11
3.6 Marketing Strategies	12
3.6.1 Product.....	12
3.6.2 Price	12
3.6.3 Place/Distribution.....	12
3.6.4 Warranty	12
3.6.5 Promotion	12

CHAPTER 4	13
4.0 FINANCIAL PLAN	13
4.1 Start-up cost.....	13
4.2 Working Capital (12 months).....	13
4.3 Prototype Cost (Per-Prototype)	14
4.4 Overall Costing to Build 1 Prototype.....	14
CHAPTER 5	15
5.0 MANAGEMENT TEAM	15
5.1 Team Members.....	15
CHAPTER 6	18
6.0 PROJECT MILESTONE	18
6.1 Flow Chart Project Design Planning.....	18
6.2 Project Schedule	20
CHAPTER 7	21
7.0 Conclusion	21

Chapter 1

1.0 Product description

1.1 Introduction

After doing some research, we have chosen a product that can benefit motorcyclists. The product is Smart Helmet. The main problem for motorcyclist is being lost while riding because not all motorcyclist know their route to the final destination. It is difficult and inconvenient to stop by the roadside to take a peek at the map and continue on whenever a rider gets lost or miss a turning. It is time consuming and also exhausting for all motorcyclists. This product is definitely suitable for motorcyclists to travel without any problem. After doing some product study, we found that regardless of income, motorcyclist will purchase high tech helmet if they like it.

1.2 Purpose of development

The main purpose of developing this product is to ease navigation for riders. Users can navigate hands-free while riding and need not manually operate any GPS devices.

1.3 Product concept

- User friendly
- Using high technology to provide navigation system
- For motorcyclist to have better sense of direction
- Reduce time taken to get from one place to another

1.4 Application

1.4.1 Functions

- Electronic main board-Program will upload to the board in order to make all the component function
- Microdisplay-Used to project image of the map at the visor
- Light sensor-To detect light emitted by the microdisplay.
- Visor-Visor will protect eyes from sunlight or other bright light of motorcyclist and act as projector screen for microdisplay to project an image on it.
- Earphone-For user to listen instructions given by the apps link with the helmet
- Microphone-Enable riders to have a hands-free call
- Battery-Give power supply for the every electric component in the helmet

1.5 Unique Features

The uniqueness of the product are:

- Navigation system to navigate motorcyclists to their final destination.
- The smart helmet link with phone maps application.

1.5 Picture description

Front and back view of physical product



Figure 1: Front View

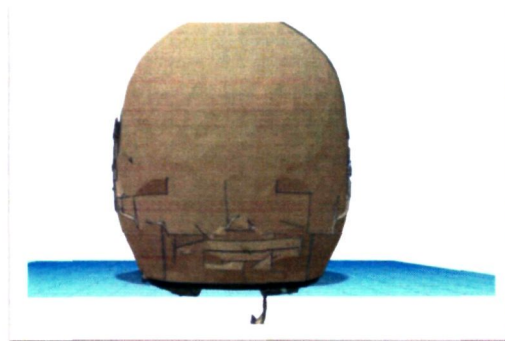


Figure 2: Back View