



اَوْنِيُو تِكْنُوْلُوْجِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

TRAFFIC OFFENCES DETECTOR

Faculty : Applied Science
Program : Bachelor in Food Science and Technology
Program Code : AS246
Course : Technology Entrepreneurship
Course Code : ENT600
Semester : 4
Group Name : Mulan Enterprise
Group Members : 1. Nor Shamira Binti Shahnun (2016359419)
2. Qamarina Binti Ahmad Suhaimi (2016726147)
3. Nur Aznida Binti Azmani (2013905001)

Submitted to

PUAN HAJJAH ZANARIAH ZAINAL ABIDIN

Submission Date

17 November 2017

TABLE OF CONTENT

CONTENTS	PAGE
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	1-2
3.0 NEW PRODUCT DEVELOPMENT PROCESS	
3.1 Definition	2
3.2 Classification of NPD	2
3.3 New Product Development Process	
3.3.1 Research & Development	2-3
3.3.2 Product Design/ Features	3
3.3.3 Concept Testing	3
3.3.4 Build Prototype (2D)	4
3.3.5 Test Marketing	4
4.0 CONCLUSION	4
5.0 REFERENCES	5
6.0 APPENDICES	5

1.0 EXECUTIVE SUMMARY

In Malaysia, the accident including fatal accident involving big vehicles increasing in time. Nowadays, due to urbanization people who are living in a fast-pace lifestyle, people tend to be selfish and forget about others when driving in order to arrive faster at the destination. Therefore, Mulan Enterprise will take this opportunity to offer a Traffic Offences Detector to reckless drivers. This device can detect and remind the driver about traffic offences that they had done intentionally or accidentally and advise them the right way of driving so that they will always realize and not repeat the same mistakes. Our Traffic Offences Detector will be introduced to drivers who driving big vehicles such as motorcars, busses and lorries. This detector may enter the market as 94% drivers from the concept testing like and would buy the product. The market survey done on 50 drivers in Shah Alam as 90% of them shows interest toward this product.

2.0 INTRODUCTION

- Problem Statement:
 - According to Marizwan, 2012, on his journal, it stated that road injuries and fatalities are a growing concern in Malaysia, with more than 6000 killed and over 25,000-recorded injuries yearly for the past 5 years. Road fatalities have shown a steady increase of 4% per year in the last 7 years, rising to 6745 in 2009.
 - Based on the statistic in the Malaysian Institute of Road Safety Research (Miros), it stated that 82% of these fatal road accidents were due to the carelessness of drivers.
- Methodology:
 - The team observed the behaviour of the drivers on the road at UITM Shah Alam for a few days which contribute to an accident on the road.
 - We read news from many sources such as journal, social media and internet about the reckless of drivers on the road.
 - Personal interviews with one of the car's accident victim were a way we get in-depth and comprehensive information

- **Limitations:**

- Our product is only limited to the big vehicles' drivers such as motorcars, busses, and lorries.
- Traffic Offences Detector can only detects the traffic offences of the drivers on the road.

3.0 NEW PRODUCT DEVELOPMENT PROCESS

3.1 Definition

Traffic Offences Detector is a device that act as a detector of traffic offences done by the drivers on the road and telling their mistakes with some suggestions that can reduced the number of road traffic crashes.

3.2 Classification of New Product Development

Our product is a new product lines which allow our company to enter an established market for the first time to produce the detector of traffic offences which cause the increasing number of the accidents.

3.3 New Product Development Process

3.3.1 Research & Development

The R&D process done for the ideation stage through:

- **Idea generation**

The idea of making the Traffic Offences Detector are due to concerns of increasing accidents occurred. The idea were generate to reduce the number of accidents on the road. Secondly, to make driver realize their mistakes and also to minimize the risk of small mistakes while driving, such as not giving signals when closer to junction.

- **Idea screening**

Several ideas are listed as below before final decision of product formed:

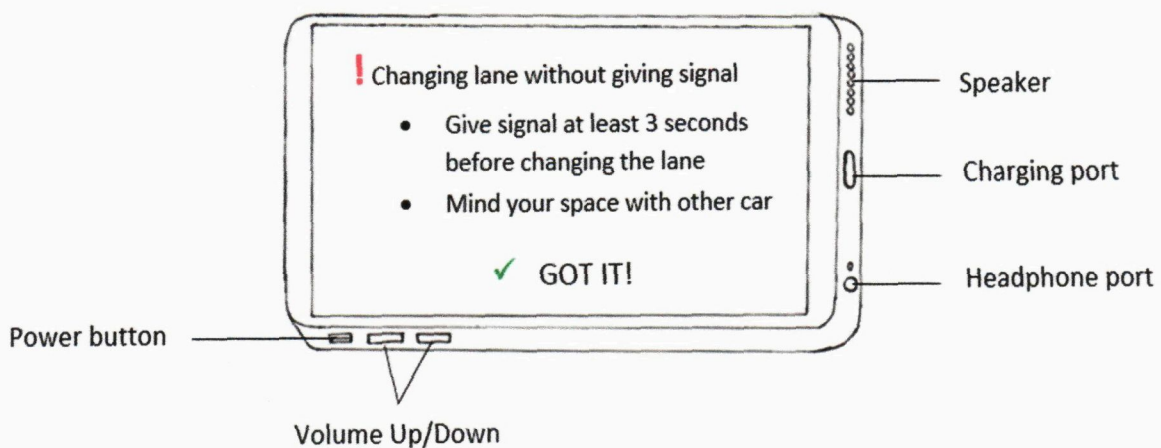
1. Apps of Traffic Offences Detector
2. Audio of Traffic Offences Detector
3. Electronic device of Traffic Offences Detector

At first the company wanted to make an apps for the Traffic Offences Detector. However it requires larger storage which will caused the mobile phones limited to download other apps. The audio also being rejected as it will disturb driver concentration. Therefore, after several times screening the idea, the company members decided to make one special device which function only as Traffic Offences Detector.

- **Market survey**

The target market for this device are, for those drives with vehicles. For example, lorry, van and motorcar. Those drivers need to have the Traffic Offences Detector in order to identify their own mistakes while driving which might cause danger to others drivers. The survey done on 50 drivers in Shah Alam as 90% of them shows interest toward this product.

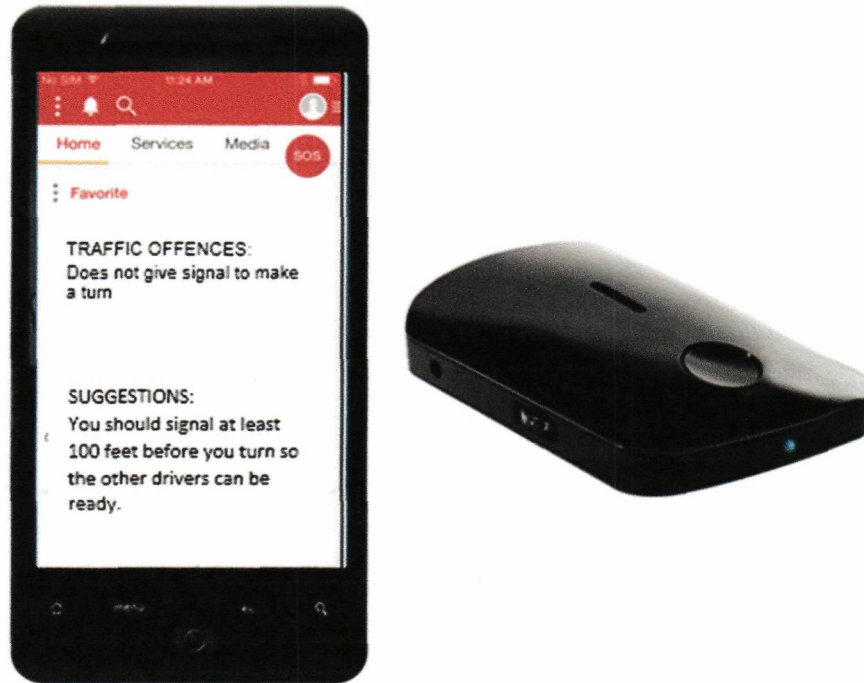
3.3.2 Product Design/ Features



3.3.3 Concept Testing

We had randomly chosen 50 drivers who driving big vehicles in Shah Alam such as motorcars, busses and lorries. We described the concept of the traffic offences detector and ask them whether they like the product and would like to buy it when it is available. 94% of drivers interested on the product and would like to buy it once it available in market.

3.3.4 Build Prototype (2D)



3.3.5 Test Marketing

When Traffic Offences Detector is produced, we introduced our product about 50 quantities into a real market conditions at certain location within our target market. We choose Shah Alam, Klang, and Kuala Lumpur as our target area as these locations are having traffic congestion every day.

4.0 CONCLUSION

In conclusion, this traffic offences detector is designed to detect, remind the big vehicle drivers about the traffic offences and at the same time advise them the right way of driving in order to reduce the accident on the road. This detector may enter the market as 94% drivers from the concept testing like and would buy the product. The market survey also done on 50 drivers in Shah Alam as 90% of them shows interest toward this product.

5.0 REFERENCES

Manan, M. M. (2012). Motorcycle fatalities in Malaysia. Department of Technology and Society, Faculty of Engineering. Volume 36, Issue 1, p (30-39).

<https://doi.org/10.1016/j.iatssr.2012.02.005>

2017. General Road Accident Data in Malaysia (1997 – 2016).

<https://www.miros.gov.my/1/page.php?id=17>

6.0 APPENDICES

Year	Registered Vehicles	Population	Road Crashes	Road Deaths	Serious Injury	Slight Injury	Index per 10,000 Vehicles	Index per 100,000 Population	Indeks per billion VKT
1997	8,550,469.00	21,665,600.00	215,632.00	6,302.00	14,105.00	36,167.00	7.37	29.10	33.57
1998	9,141,357.00	22,179,500.00	211,037.00	5,740.00	12,068.00	37,896.00	6.28	25.80	28.75
1999	9,929,951.00	22,711,900.00	223,166.00	5,794.00	10,366.00	36,777.00	5.83	25.50	26.79
2000	10,598,804.00	23,263,600.00	250,429.00	6,035.00	9,790.00	34,375.00	5.69	26.00	26.25
2001	11,302,545.00	23,795,300.00	265,175.00	5,849.00	8,680.00	35,944.00	5.17	25.10	23.93
2002	12,068,144.00	24,526,500.00	279,711.00	5,891.00	8,425.00	35,236.00	4.90	25.30	22.71
2003	12,819,248.00	25,048,300.00	298,653.00	6,286.00	9,040.00	37,415.00	4.90	25.10	22.77
2004	13,828,889.00	25,580,000.00	326,815.00	6,228.00	9,218.00	38,645.00	4.52	24.30	21.10
2005	15,026,660.00	26,130,000.00	328,264.00	6,200.00	9,395.00	31,417.00	4.18	23.70	19.58
2006	15,790,732.00	26,640,000.00	341,252.00	6,287.00	9,253.00	19,885.00	3.98	23.60	18.69
2007	16,813,943.00	27,170,000.00	363,319.00	6,282.00	9,273.00	18,444.00	3.74	23.10	17.60
2008	17,971,907.00	27,730,000.00	373,071.00	6,527.00	8,868.00	16,879.00	3.63	23.50	17.65
2009	19,016,782.00	28,310,000.00	397,330.00	6,745.00	8,849.00	15,823.00	3.55	23.80	17.27
2010	20,188,565.00	28,910,000.00	414,421.00	6,872.00	7,781.00	13,616.00	3.40	23.80	16.21
2011	21,401,269.00	29,000,000.00	449,040.00	6,877.00	6,328.00	12,365.00	3.21	23.70	14.68
2012	22,702,221.00	29,300,000.00	462,423.00	6,917.00	5,868.00	11,654.00	3.05	23.60	13.35
2013	23,819,256.00	29,947,600.00	477,204.00	6,915.00	4,597.00	8,388.00	2.90	23.10	12.19
2014	25,101,192.00	30,300,000.00	476,196.00	6,674.00	4,432.00	8,598.00	2.66	22.00	10.64
2015	26,301,952	31,190,000	489,606	6,706	4,120	7,432	2.55	21.5	9.6
2016	27,613,120	31,660,000 ^e	521466 ^a	7152 ^a	NA	NA	2.59	22.6	NA

Table 1: General Road Accident Data in Malaysia (1997 – 2016).