

SPEED TRACER

MUHAMAD ALIFF BIN ALIAS MOHD ASHRAF BIN MOHAMAD

TL 154 .M84 2015

FACULTY OF ELECTRICAL ENGINEERING UNIVERSITI TEKNOLOGI MARA MALAYSIA

SEPTEMBER 2015

DECLARATION OF ORIGINAL WORK

Student's Declaration:

We, <u>MUHAMAD ALIFF BIN ALIAS</u> (2013647184) and <u>MOHD ASHRAF BIN</u> MOHAMAD (2013891046) being members of final year project declare that this report contains only work completed by our group except for information obtained from literature, company or university sources. All information from these other sources has been duly referenced and acknowledge in accordance with the University Teknologi Mara (UiTM) Policy on Plagiarism.

Furthermore, we declare that in completing the project, the individual group members had the following responsibilities and contributed in the following proportions to the final outcomes of the project:

Name	Student's ID	Responsibility	%	Signature
			Contribution	
MUHAMAD ALIFF BIN ALIAS	2013647184	 Collecting information Writing report Material survey Proto e reparation 	50%	fail
MOHD ASHRAF BIN MOHAMAD	2013891046	 Collecting information Presentation Materials Materials survey Prototype preparation 	50%	AP

Supervisor's Declaration:

I, EN. KAMARU ADZHA BIN KADIRAN hereby certify that the work entitled, <u>SPEED TRACER</u> was prepared by the above name students and was submitted to the Faculty Of Electrical Engineering UiTM Cawangan Johor, Kampus Pasir Gudang as a full fulfillment for the conferment of Diploma Of Electrical Engineering (<u>ELECTRONIC</u>) and the aforementioned work, to the best of my knowledge, is the said student's work.

Supervisor signature and stamp:

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	ABSTRACT	
	ACKNOWLEDGEMENT	11
1	INTRODUCTION	
	1.1 Introduction	1
	1.2 Problem Statement	2
	1.3 Objectives	3
	1.4 Scope of study	3
	1.5 project contribution	4
2	LITERATURE REVIEW	
	2.1 Arduino GPS Shield Record Expansion	5 - 9
	Board GPS Module with SD card slot.	
	2.2 Arduino UNO R3	10 -11
	2.3 Antenna	12 – 14
	2.4 LCD Display	15 – 16
	2.5 Potentiometer	17
	2.6 GSM Shield	18 – 19
	2.7 Software	20 - 22
3	METHODOLOGY	
	2.1 Block diagram of methodology	23 – 24
	2.2 Block Diagram for Speed tracer	25
	2.3 Hardware Configuration	26
4	RESULTS & DISCUSSION	
	3.1 Expected Result	27 - 30
	3.2 Discussion	31 = 32
5	CONCLUSION	
	4.1 Conclusion	33 - 34
	4.2 Future Planning	35 – 37
6	PROJECT PLANNING	
	5.1 Gant Chart 1	38
7	REFERENCES	
	7.1 From Books	39 – 40
	7.2 From Online Source	

ABSTRACT

The focus of this project are for the transporter like bus and lorry with the bigger size of vehicle in the road, with is to detect the speed besides tracking the coordinate. Mostly, the biggest transport like we discuss are cause accident with high rate of victim. It also having high rate of casualties depend on other accident. Therefore we built this speed tracer in term of to know the speed we also can know the coordinate of the vehicle. This speed tracer device is both hardware and software integrated into a device which will be an alternative for authorities who cannot investigate the cause of accident. The main focus is on this problems faced by Authorities to investigate, tracking, and detect the speed of vehicle from before accident happen, we also can prevent the accident before it happened. Whenever the authorities went to detect traffic problem they have to use these device to know the positioning and speed of transport. A GPS system is used by the device/hardware to transmit and receive the data in term of longitude, latitude, time and date it happen when the transport start moving. If we use GSM system the data will be send a notification to the Authorities compute ring system whenever the vehicle are moving in high speed and over limit. The Authorities can do enforcement for offender traffic. This system are limited for authorities to detect the transporter who has offense of law of traffic. Based on this project, speed tracer are importance to do traffic enforcement in our country. Unfortunately, we might got one problem there is Arduino Uno R3 coding storage problem. We cannot complete our program to making our project functioning well.

ACKNOWLEDGEMENT

"In the Name of Allah, Most Gracious and Most Merciful"

In preparing this final year project, we dealt with many people who have a major contributed significantly to understanding of these project.

Firstly, we would like to acknowledge and thank our supervisor, Sir Kamaru Adzha Bin Kadiran for his encouragement, guidance and inspiration throughout our project. Our appreciation also goes to our family who has sacrifices so much and supported us over the years. Also for the special thanks to Jeremy Blum for guidance about to operate the Arduino coding from using Arduino Atmega to the Arduino UNO.

Furthermore, we also wish to extend my appreciation and thanks to our friends. Especially our classmates who are willing to spend their precious time to give us ideas and suggestions in completing this project.

Last but not least, our great appreciation dedicated to those who engage directly or indirectly in completing this project. Indeed all views, support and assistance in completing this project are very beneficial.