



اَبُو سَيِّدِي تَيْكُونُو لُو كِي مَارَا
UNIVERSITI
TEKNOLOGI MARA
MALAYSIA



**SAFE MODE
ZONE**

ELECTRO-STRIP

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Group Name : **EMD7M13**
Group Members : **1)MOHD FAZRYDEEN BIN YAHYA**
(2015840126)
2)MUHAMMAD SYAKIR BIN KAMARUL
ZAMAN
(2014873482)

Submitted to

MADAM HAJJAH ZANARIAH ZAINAL ABIDIN

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COMPANY'S LOGO



SAFE MODE

ZONE

EXECUTIVE SUMMARY



The purpose of this project is to instil road safety awareness in our society especially the youth and motorcyclists. Our project is mainly focusing on blind corners. Blind corners happen to be one of the highest contributor to accidents. Currently, our country is using convex mirror to portray images of incoming vehicles from opposite direction. A study shows that deaths at blind corner are caused by drivers being reckless and needlessly putting themselves at risk of collision. Therefore, we came up with the idea of **ELECTRO-STRIPS**. Basically, our project is to alert the drivers when they are approaching the blind corners at full speed. Vehicles from both directions are usually unaware of the each other's existence. With our electro-strips, drivers are able to detect cars from the opposite direction. Whenever a vehicle passes through our electro-strips, it will trigger the blinker at the other side of the blind corner. This is due to piezoelectric underneath the strips in which generates an electric charge to the blinker. This gives them time to slow down their vehicles and being aware of their speed. A speed camera is implemented to measure the speed of the car and display them to the drivers. Thus, creating awareness for them to drive slowly and safely. Being alert and responsible while driving is the way to ensure the road safety.

According to a study lead by Universiti Teknologi Mara (UiTM), the driver's attitude when on the road and road condition are the dominant factor of road accidents. It is undeniable that the drivers of this magnitude look lightly on the rules of the road that have been set by the authorities. The evidence is that many drivers who do not comply with the speed limit, especially when driving on the highway cause them to fail to control the vehicle when trying to turn to the right or to the left at the corner of the road. On the other hand, the risk for a person suffering from road accidents is higher when the corner at blind turn. This is because drivers have high probability to collide at blind turn as most people that not slow down at the corner will end up in road accident. Additionally, absence of light at the corner will add the probability as driver will assume that no car from front side and not slow down. This statement is further reinforced when statistics show that 13.2 percent of road accidents arising from the blind turn and condition of the road. In short, driver's negligence on the road and is a major contributor to road accidents. The road accidents in Malaysia especially in Selangor are quite high compare to others based on statistics given by Traffic sector, PDRM Bukit Aman.

CHAPTER 1: PRODUCT DESCRIPTION

1.1 Introduction

After doing some observation and research on the number of accident in Malaysia, we found out that blind turn contribute up to 13% of cause of accidents around the country annually. Even in UiTM, we spotted some dangerous turn that could possibly be the cause of accident. We therefore came out with an invention idea that is called the 'Safe Turn Mode' which is aim to reduce the risk of accident in the blind turn.

1.2 Purpose of development

Reduce the risk of accidents in blind turn.

1.3 Product Concept

- Warning the car moving towards a blind turn when there is incoming vehicles from opposite direction by turning on the warning light.
- Detect incoming vehicles by using vibration sensor install on rumble strip.
- Displaying the speed of vehicles to ensure the users do not exceed the speed limit.