CHAPTER I

INTRODUCTION

1.1 Background

This chapter explains the background of modern cars, the security of the cars, the car lock system and the introduction to the car lock indicator. Currently the car lock system is the main preventive measures taken to avoid car theft and the indicator is the device that alerts the car owner about the status of the car. This chapter also explains the overview of the Car Lock Indicator project, the objective of the project, the project scope and finally the research methodology to conduct the project.

1.1.1 The Modern Cars

There are many prestigious car manufacturers in the world manufacturing prestigious car for the automobile market in the world such as Mercedes-Benz, Honda, Bavaria Motor Works (BMW), Ferrari and many other car manufacturers. They have gone through many years of experience and so that their product is well known all over the world.

In Malaysia, we also have our very own car manufacturers like Proton and Perodua. They also have produced their own car model, like Proton come with it first Proton Saga then followed by Iswara, Satria, Wira, Perdana, Waja, and many other
improvement models and meanwhile Perodua comes with it first Kancil then followed by Kenari, Kelisa, Kembara, and finally MyVi. The technology in the automotive industry becomes more advance and competitive because the demands for performance, designs, safety, and price have been the concern among Malaysians.

1.1.2 The Security

Today, the security of the car has been an important matter. According to the statistics made by Polis DiRaja Malaysia (PDRM), the total numbers for the car theft that have been reported from year 2000 to year 2005 is 51,214. Below is the graph showing the figure of the cases divided into years from 2000 to 2005.

Figure 1.1: The increasing numbers of car theft in Malaysia.

There are many causes which can contribute for the car theft and one of them is the attitude of the car owner. The modern lifestyles have made people become rushing in doing everyday activities and sometimes they become careless and irresponsible to their own property, such as a car. Sometimes when people is rushing to do their daily chores they easily forget to lock their car and then uncertain about
their car have been locked or not. This could lead to the increasing figures of the car theft statistics.

1.1.3 Car Lock System

Car lock consists of the process of locking and unlocking process. There are several ways to lock and unlock the car such as:

i) By using the Car Key.
ii) By pressing lock or unlock button inside the car.
iii) By using the combination lock on outside of the door.
iv) By pulling up or pushing down the knob on the inside of the door.
v) By using keyless-entry remote control
vi) And by the signal from the control centre.

Meanwhile, the car lock system consists of the lock and unlocks mechanism, then the central lock mechanism and finally the car alarm mechanism. The conventional car lock system only provides minimal security features for the car. In order to improve the reliability of the car lock system, the Car Lock Indicator comes into the picture to act as a double-confirmation about the car status.

1.1.4 The Car Lock Indicator

As mentioned previously, the car lock indicator is a feature to improve the reliability of the car lock system by acting as the double confirmation about the car status. There are many electronic devices that could be used as an indicator and in this case LED is used as the indicator. LED is selected because this component is cheap, easy to find, reliable, need less maintenance, and small voltage consumption makes the battery life span longer.