

**UNIVERSITI TEKNOLOGI MARA
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**FINAL REPORT:
MAGNETIC DOOR LOCK SYSTEM**

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ABSTRACT

Security is needed everywhere nowadays, most people has already adopted this idea and have secured their homes from intruders or robbers by using a simple lock and key. However, the lock can be easily lock picked or simply broken with a blunt object. This leaves the belongings of the owners prone to being taken or sometimes, depending on whether the owners are home or not, could be of a risk to their own lives. The lock also could trouble the owners as they would have to bring their key everywhere and if the key is lost, the owners would have to destroy their door to gain access to their own home. Hence, this project, the Magnetic Door Lock System has been designed to overcome the problems that arise and many more.

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CHAPTER ONE

INTRODUCTION

1.1 Background of study

When people think of safety the first thing comes to mind are locks and keys as they are the oldest and most used security systems worldwide. To those who still don't see why that these locks are important, here are some of the advantages of these locks.

The reality is that the lives of so many people are in constant danger as many home invasions happen regularly, daily even. Just because there is no front page headline each day does not mean that it's not happening. In a world where violent crimes occurs regularly that threatens our wellbeing, the sooner people acknowledge their vulnerabilities the sooner people would take necessary actions to prevent acts like this from destroying our lives.

Author, Dr Amin Khan. (2015, April 19th). Throwing light on crime statistics, The Star, stated that petty crimes in Malaysia are pretty common especially for home invasion cases. They have also stated that 537 cases of robbery or home invasion are reported weekly on average and that number would have a rise of 50.3% during the holidays.

That is why locks are invented to secure our houses and offices, to prevent anything like this to happen to ourselves. If anyone asked any stranger anywhere in Malaysia to check their pockets all of them would have a key either to their homes, or their car, or to anything else. The point is that people have all secured their belongings with locks, but why are there still high numbers for cases like robbery, home invasions, etc...? This is because people are still using the conventional ways of locking system instead of the modern way.

There are two types of locking mechanism as I have said earlier, the conventional way and the modern way. The conventional way includes dial combination lock, deadbolt locks, the simple lock, etc... These locks have been guarding our homes and offices for a very long time, however, these types of locks may fend off petty thieves but dedicated thieves may be a little bit difficult. They