ELECTRONIC AUTOMATIC DOOR

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ABSTRACT

Nowadays, lock has evolved into the security device that embedded with the microcontroller which is usually named electronic lock. There are several authentication methods for the electronic lock and the password based electronic lock are the most ubiquitous and cheapest among them. However, there are some drawbacks for this type of lock. This security code lock is designed to secure the house from a crime and give easier for users. It is a microcontroller based lock which using the code as password to unlock the system. An Arduino uno is used as the brain of the electronic locking mechanism. A keypad is used to provide user to insert the code. Meanwhile, a Liquid Crystal Display (LCD) is used as a platform for the system to exhibit its condition and status as well as to allow user to select the desired menu option. The keypad buttons is changing randomly during the code inserting process to provide an unfixed button. The Arduino software is used to develop and boot the programming code into the project. Generally, this security code lock is able to increase the security level such as to the ordinary password based lock, since the sequence of buttons to key in the security code is not fixed and security code is not based on alpha numeric number. For more and more people, a control system by electronic automatic door has become a necessary part of their home. This trend can be directly traced from the life style and daily routine which is always busy with works. People nowadays always want something that can make their life easier. This project is proposed because it is believed that this project can make people life easier. The basic idea for electronic automatic door is the users easier lock and unlock door with keyless and automatically. This is also prevent and reducing from crime. Last but not least, the basic idea for door locking system is when owner want to go out and into the house, the door will open and close automatically.

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CHAPTER 1

INTRODUCTION

1.1 Background Study

Nowadays, the public security in our country is not so ideal and the crime rate seems not to be reduced these past years. Our life is full of threats in every minute from now, no matter where we are especially in the city. The tragedy may occur during our way to work, travelling or even at our sweet home which is usually defined as the safest place for us. The robbery and burglary cases seemed rampant today, it even occurred under the CCTV surveillance. Even though the police have put a lot of efforts on this, but still, it needs our own effort to ensure the security for our home. Due to this, the security has become a crucial issue for our daily life. Everyone is going to use whatever means that can promise them the safety of their asset. The lock is considered as the main hire of defense to prevent others to access personal stuffs or intrude into our private area. It is one of the earliest security methods over the centuries. The lock is an indispensable part for security system and still used in the security system today with other extra access operation, likes password, token or biometric verification.

The title of project is electronic automatic door based on arduino. This project is to improve and develop home security system. Besides that, the one of objective is to reduce a crime in