

Security Lock For Bike Ignition Using Android Mobile

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Abstract: Here may be a basic reality of contemporary life, everybody a lot of possible to lose your keys than a Smartphone, which might be like losing a limb to a growing portion of the population. That's one reason that good locks (locks that may open from a smartphone) are gaining in quality again and again individuals forgot to hold the key of our bike or key gets lost. In these cases it's very troublesome to induce the bike started.

This project is intended to unravel this purpose. Main thought behind this project is of a relay in operation employing a countersign entered through mechanical man mobile. It additionally activates the Buzzer once wrong countersign is entered for multiple times.

The main objectives of this project are to style and develop a system victimization microcontroller that may management the bike ignition. Second one to create a secure access to the system using pass key. Third one to develop an Android mobile application for the system. The idea of this project came once there are plenty cars these days came with a wireless security system and several other latest technologies. But, the protection system for the motorbike, particularly the little bike wasn't developed similarly because the cars.

Keywords: Microcontroller, LCD: Liquid Crystal Display, Buzzer, Bluetooth Technology, Android mobile.

I. INTRODUCTION

This project is concerning developing a paradigm of security system for motorbike ignition. this technique conjointly encompasses a potential to avoid the motorbike from being taken. This lock security was developed to manage the ignition of the motorbike through the wireless communication. the present lock at the motorbike really isn't having a awfully high security. As we will see that it solely came with 2 main security lock that is handled lock and normal electrical switch lock. By doing this project, its clearly showing the variety of security lock can be added to the motorcycle. Furthermore, at least this system can improve the security level of the motorcycle and can help to decrease the motorcycle theft criminal statistic.

II.LITERATURE SURVEY

This section basically discusses the technology that is implemented in the project and the background of the technology. The review about the previous work related to this project were discussed in this section. Bluetooth technology and Android technology is the core of the project. Therefore, the Android and Bluetooth technology will be introduced. The reasons to use Bluetooth and Android technology in the project is also explained in the chapter. This section also will introduced about the Arduino board

technology that used in this project and the reasons why Arduino is used also will be extracted in this section. Besides that, the other components that used in this project also will be elaborate more clearly in this part.

‘Car Monitoring using Bluetooth Security System’, This paper briefly tells about an auto security framework accompanies additional secure access and canny disturbing for car security system. The framework just can be gotten to and arranged by proprietor utilizing Bluetooth module correspondence through cellular telephone to turn it on or off. This system function when the alarm is triggered, the aggressor alert system will send notification to the user mobile phone through the Bluetooth communication. They are using the PIR sensor in order to monitor the absence of human in the car. This project is using the Blue Smirfsilver Bluetooth module which can operate in the range of 0-10 meters. The operating system (OS) that they are using is for the Nokia mobile which is the Symbian OS. It used the C programming language to build the mobile application. Besides, the project run and controlled by PIC16F877 processor that soldered on the PCB board with others electronic components.

III. PROPOSED SYSTEM

Problem definition:

The bikes nowadays are very easy to be stolen simply by opening the ignition keys with only one key, especially low-powered motorcycles because they are not equipped with advanced systems such as those used in the most high-powered motorcycles (Superbike). Bluetooth technology and Android technology is the core of the project. Therefore, the Android and Bluetooth technology will be introduced.

The idea of this project came when there are a lot cars nowadays came with a wireless security system and several latest technologies. But, the security system for the motorcycle, especially the small bike was not developed as well as the cars. This project focuses on the wireless system communication that controlled using android operating system for mobile phone. This system will allow the user to keep the ignition circuit maintaining in ‘ON’ and ‘OFF’ mode. Android mobile based mostly Security lock for Bike ignition could be a replacement for ancient locks in bike. User has got to mobile. If the word is correct then DC motor is revolved. Buzzer is turned on for wrong word. This planned system is intended to unravel this purpose. Main construct behind this project is of a motorbike security system exploitation through keyboard.

IV. METHODOLOGY

Block diagram:

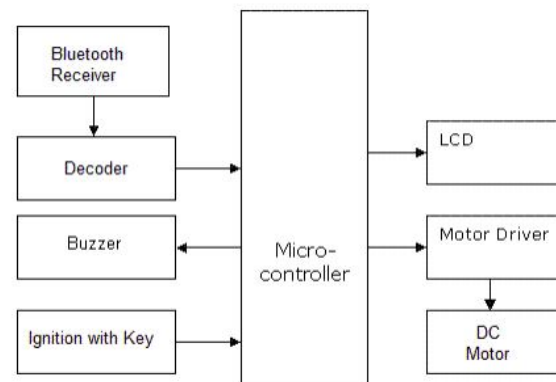


Fig1: Block diagram representation of the proposed system.

Hardware idea design:

The Fig1 represents the overall

block view of the proposed system and its detailed explanation of each block is as follows:

A. MICROCONTROLLER: This is often the central processing unit of our project. We tend to be reaching to use a microcontroller of 8051 family. The varied functions of microcontroller are like: I. Reading the digital input sent from mechanical man application. II. Causing this knowledge to alphanumeric display so the person operative this project ought to browse the secret. III. Sensing the secret mistreatment mechanical man and to see whether or not it's an accurate password or a wrong password and rotate the stepper motor if the password entered could be a correct password. IV. Causing the information to the pc using interface. This knowledge comprises the standing of entered secret (Correct/wrong).microcontroller is meant by Intel in 1981. it's associate 8-bit microcontroller. it's designed with forty pins DIP (dual inline package), 4kb of store storage and 128 bytes of RAM storage, two 16-bit timers. It consists of are four parallel 8-bit ports, that are programmable similarly as available as per the need.

B. ALPHANUMERIC DISPLAY:16×2 LCD module could be a quite common form of LCD module that's employed in 8051 based mostly embedded comes. It consists of sixteen rows and a pair of columns of 5×7 or 5×8 alphanumeric display dot matrices. The module were are talking concerning here is sort range JHD162A that could be a very fashionable one . it's offered during a sixteen pin package with back lightweight, contrast adjustment perform and every matrix has 5×8 dot resolution.LCD (liquid crystal display) is that the technology used for displays in notebook and various smaller computers. Like diode (LED) and gas plasma technologies, LCDs allow displays

to be copious agent than beam tube (CRT) technology. It will show alphabets alongside numbers on two lines every containing sixteen characters.

C. BUZZER: A buzzer or device is associate audio device which might be mechanical, machine, or electricity (piezo for short). Typical uses of buzzers and beepers embody alarm devices, timers, and confirmation of user input sort of a depression or a keystroke. We are reaching to use a buzzer to point the incorrect secret to open the bike lock.

D.EMBEDDED SYSTEM: An embedded system could be a controller with an infatuated performs at intervals a bigger mechanical or electrical system, usually with period computing constraints. It is embedded as a part of an entire device usually as well as hardware and mechanical elements. Embedded systems management several devices in common use these days. 98 % of all microprocessors factory-made are employed in embedded systems.

Modern embedded systems are usually supported microcontrollers (i.e. microprocessors with integrated memory and peripheral interfaces), however normal microprocessors (using external chips for memory and peripheral interface circuits) also are common, particularly in additional complicated systems. In either case, the processor(s) used could also be varieties starting from general purpose to those specialized in bound category of computations, or maybe customized for the applying at hand. A standard category of dedicated processors is that the digital signal processor (DSP). Since the embedded system is devoted to specific tasks, style engineers will optimize it to cut back the dimensions and value of the merchandise

and increase the responsiveness and performance. Some embedded systems are factory-made, cashing in on economies of scale.

Embedded systems vary from transportable devices like digital watches and MP3 players, to massive stationary installations like light controllers, programmable logic controllers, and enormous complicated systems like hybrid vehicles and conjointly the medical imaging systems, and aeronautics. Quality varies from low, with one microcontroller chip, to terribly high with multiple units, peripherals and networks mounted within an oversized instrumentality rack.

E.ANDROID APPLICATION: User can enter the secret mistreatment the applying put in on mechanical man mobile. Numerous keys of application are as following,

I. 0 to 9

II. Enter

III. Escape

F.BLUETOOTH: Bluetooth is basically a wireless technology that is used to receive and transmit data over a short range. The wavelength that is used for the transmission of data ranges from 2.4 to 2.485 GHz.

Bluetooth actually implements the frequency hopping spread spectrum. This method basically divides the data into packets. There are 79 Bluetooth channels available and the packets of data will be transmitted in one of the 79 channels provided. The bandwidth of the channels is 1MHz. Bluetooth other and starts exchanging data. These devices are connected over a short range. Basically a network developed when Bluetooth Enabled devices are connected to each other in a range of 10m. Block diagram of the model

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Fig2: proposed model

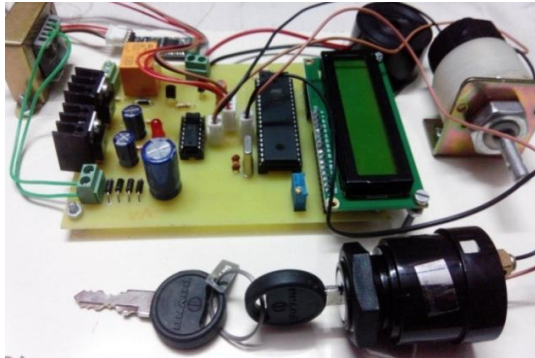


Fig3: Circuitry model

Fig2 depicts the proposed model.

Fig3 depicts the circuitry model of the proposed system.

V. CONCLUSION

This project might be useful to the people that are earning a really less salaries and also the people who are richest, earning high salaries by keeping a strong security on their own vehicles, they'll move anywhere they require by parking the vehicle at unknown place. This might be helpful to every and each person in day to day life and that they can never be frightened of the vehicle thenceforth.

VI. FUTURE IMPROVEMENT

This is often a singular technique of planning and aggregation of an occasional value, compact stealing system for automobile. This instrument is associated with a final threat to vehicle thieves. Also we will install GSM and GPS to create the system even safer.

Ideally this method might be created as an additional convenient and secure with the employment of satellite modems rather than

cellular phone as a chase device because the system might fail once there's no network coverage space. This system is often created as an additional versatile in future to support camera, internet primarily based chase computer code conjointly laptop based stand alone software.

VII. REFERENCES

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