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SMART KEY DETECTOR

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ABSTRACT

In recent times Automation plays an important role. The Internet of Things becomes oneof the key technology through which things can be done via the Internet. In our busy schedule life misplacing our home/office keys anywhere becomes common. Many timeswe forgot where we place our keys and search. The rapid growth of technology helps us find our misplaced keys and track and find the location. Many times wemisplace our keys and go searching for them everywhere in the house, and after a long search, we end up finding them with much distress. Now, the obvious solution here is toplace your keys in the right place, but as engineers, what's the fun in doing that? So, in this we are going to build a simple IoT-based Smart Key just using ESP8266-01, Buzzer, and Battery. Now in case you can't find your keys and you remember that you have attached an IoT keychain to your keys, so you take out your phone and open Chrome, and open your Keychain Webpage. Then you click on the toggle button, and inmoments, you hear a beep sound coming from your keychain and with this, you can easily track your keys. The main motivation of our project is to solve the issue of keys being lost and/or stolen. Our new and improved smart key will allow users to locate keysthat are up to certain meters away by using the sensors provided. The keys would be ableto be located by making sounds when looking for them. The key box system would be able to activate, and deactivate the keys and give a direction to the key which the user islooking for.To open a lock, all you need to do is hold it over a sensor or press a button. You won't have to worry about struggling with faulty locks, scratching your paint inserting the key, or being limited solely to key entry.

Keywords: smart key detection, Arduino, PCB.

I. INTRODUCTION

Smart key finders are electronic devices that are used to locate an item. They are gadgets usedto find missing items, whether in the house or at the workplace. Suppose you are the kind of person that is a bit disorganized. You are most likely always to misplace your keys. You wouldnot know the key is not in the right place until you urgently need it. Meanwhile, at that time, the frustration and curiosity as to where the keys might be will not let you be able to search forthem properly. That is where smart key finders come to play. It will assist you in getting to theexact place the key is located without stress. we are going to build an IOT-based Smart Key finder. The main motivation of our project is to solve the issue of keys being lost and/or stolen.Bluetooth is a recently conceived communication standard that allows wireless connectivity between Bluetooth-enabled computing devices. Bluetooth allows devices to communicate via short-range radio links, removing the restrictions of wires, cables, and line-of-sight requirements. The desirable features of Bluetooth include robustness, low complexity, low power and low cost. Our new and improved smart key will allow users to locate keys that are up to certain meters away by using the sensors provided. The keys would be able to be locatedby making sounds when looking for them.

II. LITERATURE SURVEY

[1] The Design Of Key A Finder By Using Bluetooth Low-EnergyTechnology authThe key finder is a small PCB board using Bluetooth technology and microcontroller control.

The key components are the Bluetooth module and microcontroller. The AVR microcontroller is a very powerful component, it can drive many other components.This technology can be expanded to many other devices

[2] Smart IOT Device for Child Safety and Tracking M Nandini Priyanka, S Murugan, K N H Srinivas, T D S Sarveswararao, E Kusuma Kumari. Child safety and tracking is a major concern as the- more number of crimes on children are reported nowadays. With this motivation, a smart IoT device for child safety and

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tracking is developed to help parents to locate and monitor their children. The system is developed using LinkIt ONE board programmed in embedded C and interfaced with temperature, heartbeat, touch sensors, and also GPS, GSM & digital camera modules.

III. PROPOSED SYSTEM

Our project aims to develop smart key finders to find t lost or mislaid keys. We are developing

a user-friendly solution for people who frequently lost their keys. Smart key finders are used totrack mislaid keys. The smart key finder consists of ESP8266-01, Battery, and a buzzer. Whenthe smart key finder is connected with the mobile app "I searching" through Bluetooth and if you need to find the key, double-click on the key locator button to find the key. The smart keyfinder will produce a beep sound. When the item is disconnected from the mobile APP Bluetooth, the APP will record and notify the lost history after the item is disconnected. This powerful smart key finder is user-friendly and transportable. The designed smart key chains will be working in two ways:

- Firstly it will show whether they are lost in the known places
- Secondly they will track and tell us the location

The proposed system will be transportable and this can be used to find many things which havebeen lost. This project will be successful project once it is implemented correctly. The smart key finder can track any of the things to which it is attached. The key finder is a small PCB board using Bluetooth technology and micro-controller control. The key components are Bluetooth module and micro-controller.

MODULES

The system architecture consists of two modules:

c) User module

d) Admin module – smart key finder

USER MODULE:

1) Device:

- Open the mobile Bluetooth, and inside the device, click "Connect in the device".
- Click the "alarm button", and the key finder will make a long beep, click again to stopthe beep sound.

2) Location:

- The key's location can be tracked using the GPS provided by the smart key finder.
- If the key is lost the lost history can be retrieved using the "Lost history" option provided by the app.

3.6.2 ADMIN MODULE:

1) Switch on/off : Switch on – press and hold the button for 2-3 seconds until you heard the beep twice.Switch off - press and hold the button for over 3 seconds until you hear the long beep.

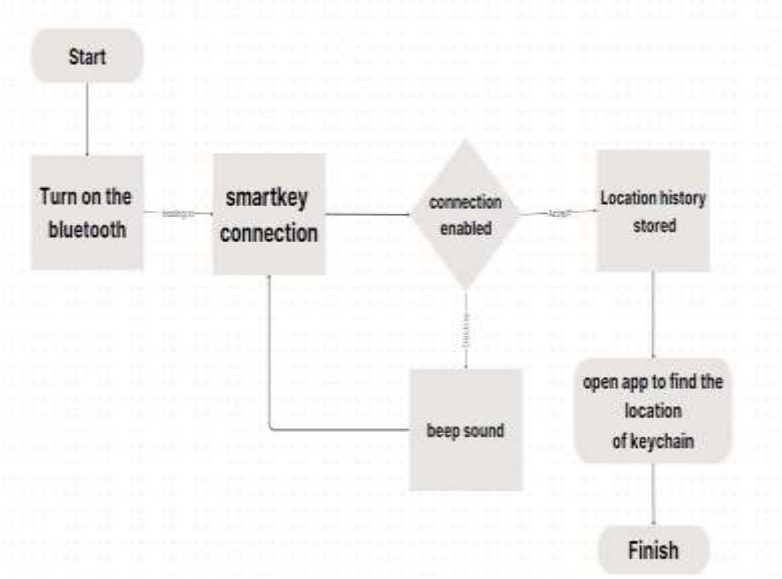

Figure 1: Flowchart

IV. RESULT ANALYSIS

"Sometimes the things that we miss are the greatest importance in life". This is the perfect project for those who frequently place their keys here and there and are unable to find them. when needed the most. So here we bring Smart Keychain, a smart companion for your keys. No worries where are the keys just take out your smartphone and give a trigger to your keys, and they will automatically say where they are.

V. CONCLUSION

There is a need of being able to keep track of important assets in indoor environments. As people losing their belongings like keys, pen drives, wallets and hand purses have become a common issue. Again the belongings are lost mostly due to misplacement. So there is need for the system or application that can locates lost assets in a cheap and efficient way. This paper gives the survey of different techniques used for tracking the objects and abstract view of the system that we are going the implement to solve the issued related to the existing system. We are implementing system with the use of BLE beacons which can be described as small devices broadcasting their identities using Bluetooth Low Energy.In this paper, IoT-based Keyfinder by using ESP8266- 01, Buzzer, and Battery has attached to the keys. The system has developed a webpage dedicated to find the missing keys. The missing keys can be found usinggoogle chrome webpage from the mobile phone. The developed IoT based keychain is equipped with a buzzer which will produce beep sound when the webpage is activated to find the missingkeys. A number of improvements can be made to the project. A GPS module could have been used in the smart keychain finder. With the help of this keychain finder the user could have easily tracked the missing keys. A message system could have been programmed to alert the user about finding there missing keys. Instead of a webpage the user can use an android app totrack the missing keys.

VI. FUTURE ENHANCEMENT

- Though the proposed system can track any objects , the smart key finder and theaccess points require less memory .
- In future the boundary distance between the smart key finder an dthe beacon shouldbe extended.

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