

# ALERT SYSTEM

*GitHub link*

<https://github.com/Ci-Daniels/DEVICE-LOCATION-SYSTEM>

## INTRODUCTION

It has if not all the time, most times happened that we lose or misplace our keys or wallets; and the experience has been traumatic. Having to go back and try to trace back our steps. Sometimes with luck, we find the lost item but other times, we end up having to replace them.

The alert system helps solve this problem quickly. This is by automating the entire process of locating the lost items. It allows us to turn on a buzzer through the click of a button in our phones which in turn gives the location of the item.

## OBJECTIVES

- Alert the owner of the location of the misplaced item.
- Recover lost items

## BILL OF MATERIALS

### HARDWARE

- Node MCU
- Buzzer
- Jumper wires

### SOFTWARE

- HTML -webpage
- Arduino IDE

## FUNCTIONALITY

### NODEMCU

This is the brain of our system. It controls all the other components in the system. It sends and receives commands from the webpage and activates the buzzer to give the location of the lost device.

### WEBPAGE

It is an HTML webpage that opens once you feed in the IP address in your web browser. It has the name of the projects and instructions on how to operate the system.

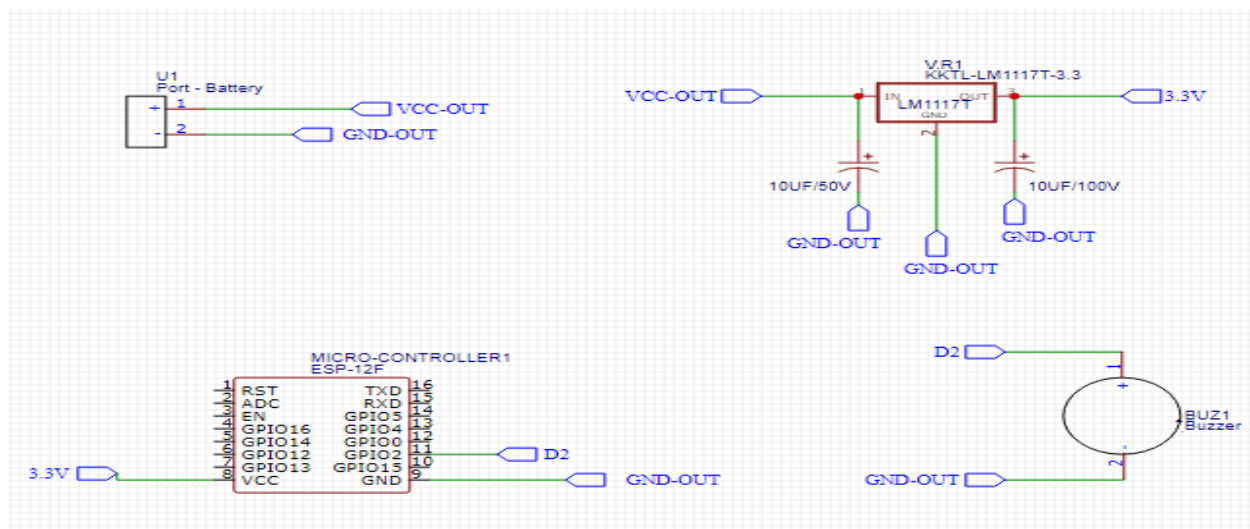
There is also a clickable button on the webpage that allows you to turn the buzzer ON or OFF.

### BUZZER

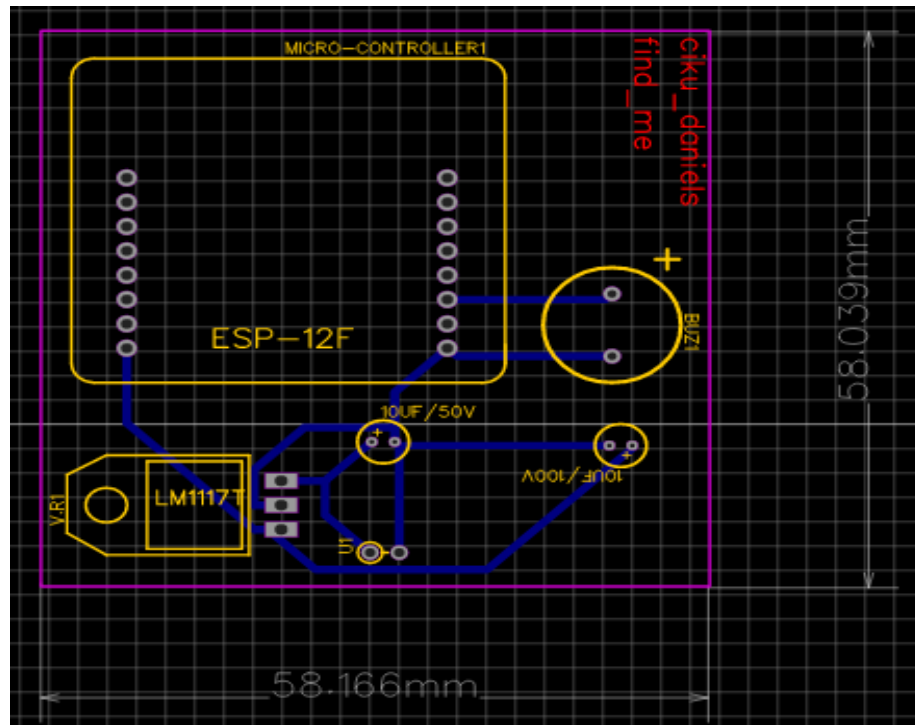
The buzzer is connected to the micro-controller. It is the alarm of our device. Once the webpage is open, there is a button that allows you to locate the device that the system has been attached to. Once the button is clicked, the buzzer will go on pointing out the location of the device.

## SCHEMATICS

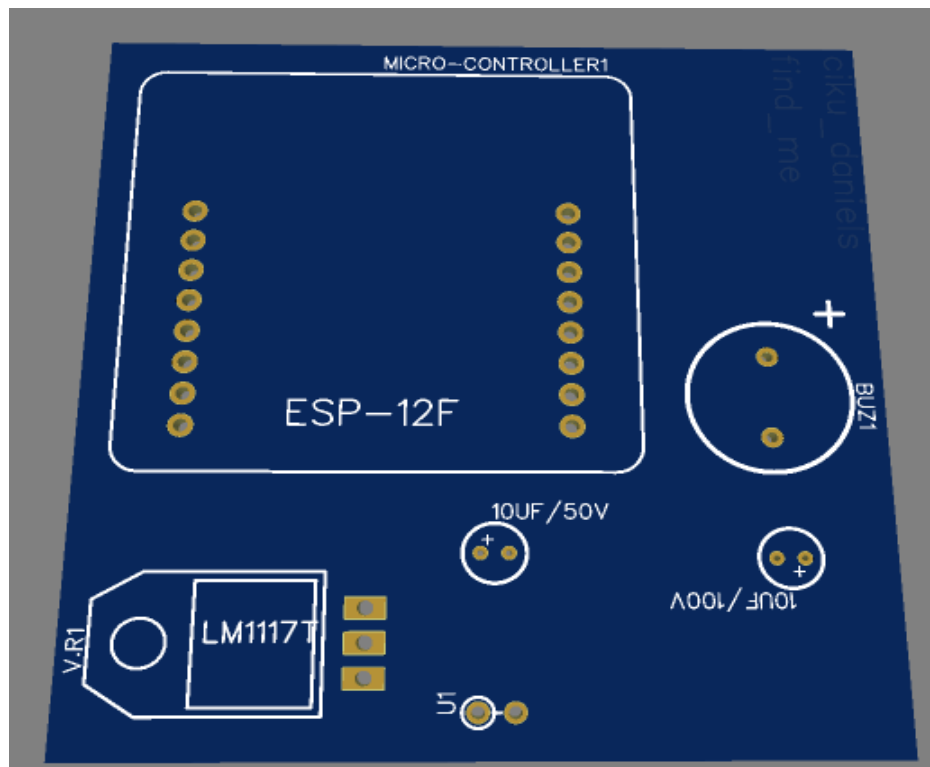
### CIRCUITRY



## PCB DESIGN



## 3-D PRINT PCB DESIGN



WEBPAGE VIEW

## Smart Keychain

- Press the Button to locate your keys
- Once you locate them, press it again to turn off the buzzer

FIND KEYS!!

Current state: 0

### ADVANTAGES

- Ensures the security of your system.
- Easy location of misplaced items.
- Economical and easy to maintain.

### DISADVANTAGES

- Requires electricity and internet for you to access the device.
- It might require one to change the battery often after it gets exhausted.

### SCALABILITY

The system can be upgraded to use a GSM module. This will not need wifi connectivity and you could always locate your device wherever just by sending a simple text message from your phone to activate the buzzer.

you could also put in a GSM module that would help you pin the exact location of the item in case you lost it at a different geographical location; in the case, you will not be able to hear the buzzer

## CONCLUSION

This is an intelligent system that allows you to locate misplaced items such as your wallets and keys.

Through the click of a button, it is possible to know exactly where your lost item is and as such ensures security and recovery of these items.