International Journal of Recent Engineering Research and Development (IJRERD)
Volume No. 02 – Issue No. 05, ISSN: 2455-8761
www.ijrerd.com, PP. 81-85

Tracking System Using Bluetooth Tags and Android app- Tagdroid

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Abstract: "Tag droid" "Tile" or called by many names is a device or a technological invention for lost and found. We can attach the tile on any device we may lose like keys, laptops.etc .The app remembers where it previously saw the tile .By sharing with the community of tile, and it is like the world finding the lost item. It is a future technology in which many modifications can be done.

Keywords: Android application, Bluetooth tag, GPS system, Microcontroller 89s2051.

1. Introduction:

Tile is a product designed for lost and found items which can be a trend in the history of gadgets. This new technology uses a simple principle for doing an important5 work of finding the lost item. As all human beings make some mistakes any important item can get lost. To overcome this problem we are introducing this product. If the lost item is within the Wi-Fi range then the product can be found. We can also find the lost item using a cloud application by logging into the cloud server and finding the item which is lost over a month ago. If the lost item is not in our range then by using Wi-Fi we can get the help from our tile community to find the lost items.

2. Features:

- Bluetooth tag
- Android app
- LED
- Buzzer
- Location on Google Maps

3. Existing System:

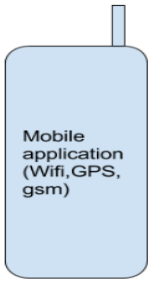
The existing system uses a mobile application to find the lost items using the internet. Suppose a key is lost and a tile is attached to the keychain, the mobile app gives a notification through a buzzer if the lost object is in range. For giving notifications a buzzer or an LED can be used. If the lost object is not in the Wi-Fi range then the tile community users can track it using their mobile app, similarly by getting a notification. This Ethernet tag manager is used for finding the lost objects or items. Java and php is used for the creation of the application which takes a lot of memory space. It also includes complicated coding lines.

4. Proposed System:

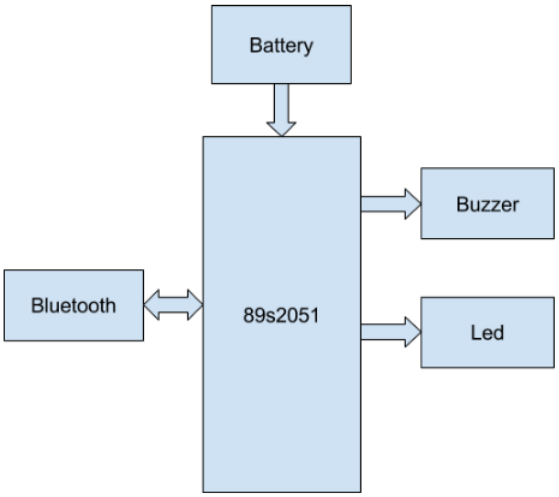
The proposed system solves the issue of the complexity of the device. The user interface (UI) of the system is not complex which also leads in the reduction of system cost. The sensors having a powerful battery life and feasibility are configured. Instead of Bluetooth embedded transmitters, generic receivers and transmitters can be used. The device can be configured with a GPS system like Antenna which can be used to track the location of the tracked object. User requests are used for switching the system to GPS, this can be considered as one of the system advantage.

5. Diagrams:

Android app



Tile side



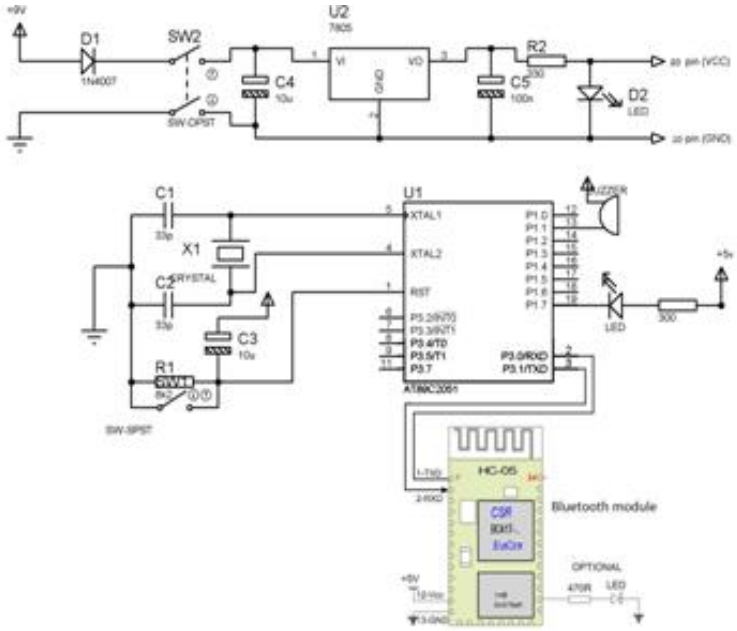


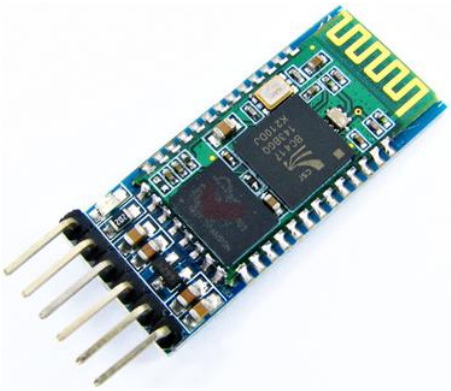
Fig: - Circuit diagram

6. Modules:

(a) Microcontroller
Block:- Microcontroller
Type: - AT89C2051
Analog/Digital:- Digital
Pins For Interface:- 15 Pins
Photo/Circuit Symbol:-

(b) Bluetooth module

Block:- Communication
Type: - HC-05
Analog/Digital:- Digital
Pins For Interface:- 4 Pins
Photo of Circuit SYMBOL:-

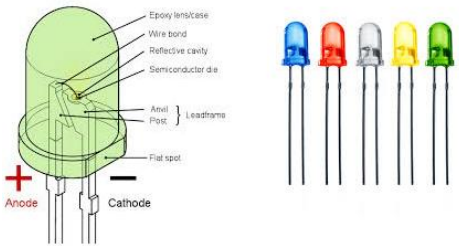


(c) Buzzer
Block:- Output
Type:- Piezo Buzzer
Analog/Digital:- Digital
Pins For Interface: 2Pins
Photo/Circuit Symbol:

(d) LED
Block:- Output
Type:- Solid state diode
Analog/Digital:- Digital

Pins Of Interface:- 1 Pin

Photo/Circuit Symbol:-



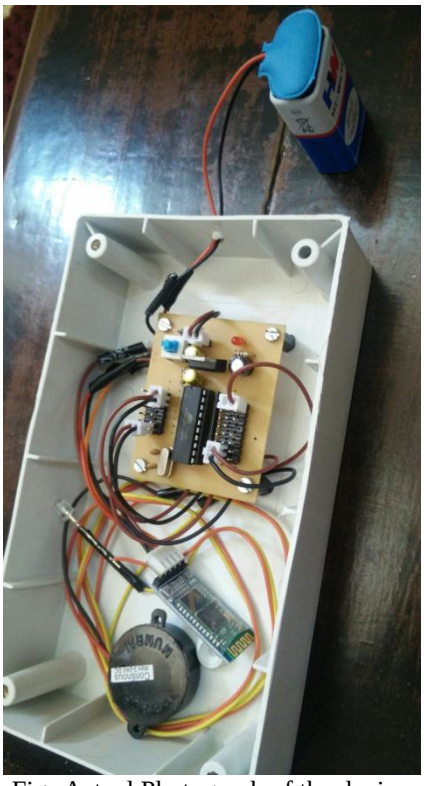


Fig:-Actual Photograph of the device

7. References:

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8. Conclusion:

The paper proposes a mechanism for organization and indexing of tile caches on map server based on the grid index and further analyses the deformation of shape using this technique. The paper also gives two ways to solve the problem through modifying the ratio of width to length of each tile or of the longitude step and latitude step. This paper implements the on line mapping of web application using the tile cache technique in Wuhan city, China.