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Data Communication via Bluetooth between Pendrives

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Abstract: *This paper represents transferring data between pen-drive to pen-drive without using the computer .By using inbuilt function of Bluetooth in pen-drive we can transfer the data one pen-drive to another without using the PC. Generally, the common computer user can transfer the data from one USB Flash device into another within less time by using daily developed several data and application. But in all this process, user first find computer then boot up, then plug in the device and transfer the data. There are different type of USB Flash drives are used now days unnecessary that all this device are supported to operating system and computer as well as this device drivers are available and installed in the system. We easily transfer that data. This is very useful process for saving the time as well as user efforts. The purpose of this paper is transfer the data one pen-drive to another by using microchip.*

Keyword: *Power supply, Microchip, LCD, Bluetooth.*

I. INTRODUCTION

Handle the computer or laptop just for transferring of the data is expensive in these days when people want all device is easy to use. For transferring data the computer become functional and it take more time for transferring the data as well power. Because of that type of transfer, there are attack of different type of viruses and threats on computer and because of that reason; the user work is more complicated. This viruses are get copied along with the other data from one device

To another and when device is plugged this virus are activated and copied. This project represent the solution on above situations. Aim of this project is to create small and easy to use device for transferring of the data. With help of this project two USB can communicate directly without PC. USB devices directly connected to embed system. A controller hosts the flash devices. Insert pen drive into USB port, then a signal will have sent to the controller indicating that source pen drive is inserted so now controller will wait for the signal from another USB device. When the controller gets the signal from other USB drive then controller is ready to transfer the data between two. Controller gets the input only from external hard key from the user. Once the user presses the hard key, controller gets the information to transfer the data between two drives. The user interface consists of keypad 20x4 LCD display. User can see the data of both the flash drive and can send in either direction from first flash drive to other or from second to first.

A. General Idea of Project

Bluetooth is a wireless technology for exchanging data over short distances and mobile devices, and creating personal area networks (PANs) with high levels of security.

Implementation:

B. Bluetooth Uses

Bluetooth is a way to connect and exchange information between devices such as faxes, mobile phones, telephones, laptops, personal computers, printers, Global Positioning System (GPS) receivers, digital cameras, and video game console. It is designed as a low bandwidth technology.

C. Uses

Bluetooth is a standard wire-replacement communications protocol primarily designed for low power consumption, with a short range (power-class-dependent, but effective ranges vary in practice; see table below) based on low-cost transceiver microchips in each device.

Class	mW	dBm	Range(m)
Class 1	100	20	100
Class 2	2.5	4	10
Class 3	1	0	1

D. Essential Components

There are typically four parts to a flash drive: a. Standard-A USB plug– provides a physical interface to the host computer. b. USB mass storage controller– a small microcontroller with a small amount of on-chip ROM and RAM. c. NAND flash memory chip(s) – stores data (NAND flash is typically also used in digital cameras). d. Crystal oscillator– produces the device's main 12 MHz clock signal and controls the device's data output through a phase-locked loop.

II. LITREATURE REVIEW

[1] The idea of this project was taken, looking at the problems faced in daily life of Flash Drive Users to transfer the data from one disk to another. Moreover, transferring data via a computer involves a lot of power to be wasted. There are numerous types of data transactions that are being carried out through these devices. However, to operate these devices most of the times an operating system is required, which calls for the hosts to be extremely complicated system hence accessing the devices requires complicated hardware, hence a controller that can handle the data transfer and initiates the USB transactions was searched. The idea includes a flash drive of 1GB capable of transmitting and receiving data wirelessly between itself and other devices.

[2] Proposed a method for transferring the data between two Pen drives; the project enables data sharing between mobiles and pen drive directly without using of computer or laptop. The project contains a microchip technology, PIC. The device will work over the Bluetooth link as well as with the USB 2.0 interface also.

III. PROPOSED SYSTEM

Previous system cannot support` for transferring data by Bluetooth. That process is more time consuming as well as hectic to the user. Because of that purpose, this system will be design. This system is good as compare to purpose system.

IV. METHODOLOGY
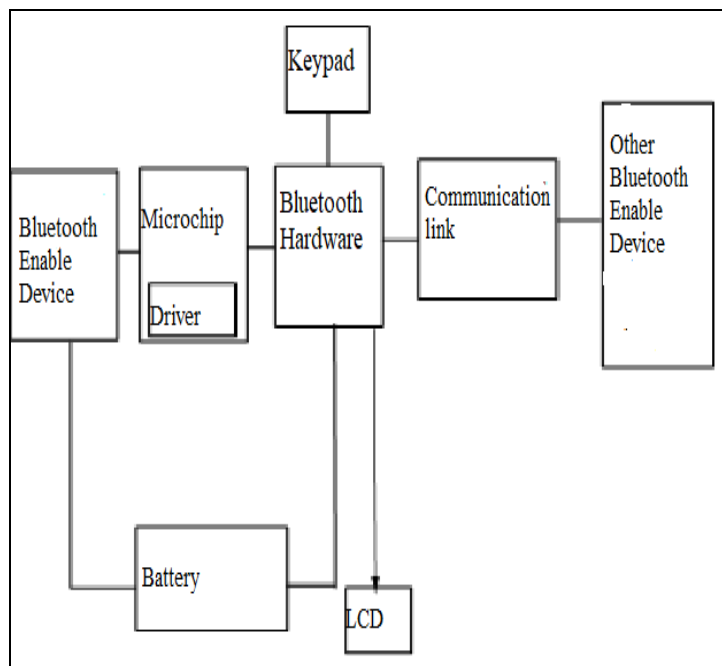
In the block diagram we can observe, whenever we insert the pen drive into the Flash Drive with USB 2.0 Interface. Then signals can transfer on OS.

Then a signal will be sent to the Bluetooth Hardware indicating that source pen drive is inserted and start fetching the data from the source pen drive into the buffer and waits for the signal from destination pen drive.

When Bluetooth hardware send the signal to the communication link and communication link gets the signal from the destination pen drive now Bluetooth hardware is ready to transfer the data between those.

Only the Bluetooth hardware should get the input from external hard key from the user, once the user presses the hard key the Bluetooth hardware gets the information to transfer the data between two pen drives.

While transferring the data the led blinking rate will be increased when data transfer is completed then led will stop blinking.

There are two ways of designing this project with only the difference of the task becoming much hard and less costly to less hard and costlier. These two methods include

A. Using Microchip

Microchip develops a wide range of micro-controllers and integrated circuits (ICs), for the hobbyist and professional markets. Microchip is widely known for their line of PIC micro-controllers.

PIC (usually pronounced as "pick") is a family of micro-controllers made by Microchip Technology. Separate code and data spaces. A small number of fixed-length instructions. A hardware stack for storing return addresses.

A small amount of addressable data space.

PICs have a set of registers that function as general-purpose RAM. Special-purpose control registers for on-chip hardware resources are also mapped into the data space. The RISC instruction set of the PIC assembly language code can make the overall flow difficult to comprehend. Judicious use of simple macros can increase the readability of PIC assembly language. It has macro instructions like mov b, a (move the data from address a to address b) and add

b, a (add data from address a to data in address b).

Flash memory (program memory, programmed using MPLAB devices)

SRAM (data memory)

EEPROM memory (programmable at run-time)

Sleep mode (power savings)

B. Using Operating System

Now the second methodology and which is more preferable one as per my research till now. In this methodology I am using an operating system but the question is how? Everyone had kept their O.S.

as a proprietary property.

But thanks to Google who has created android for the day like present days. We can use android because it is an open source in the market and is easy to learn. By installing an O.S in our device we don't have to do lots of driver's coding for asking the platform to perform because
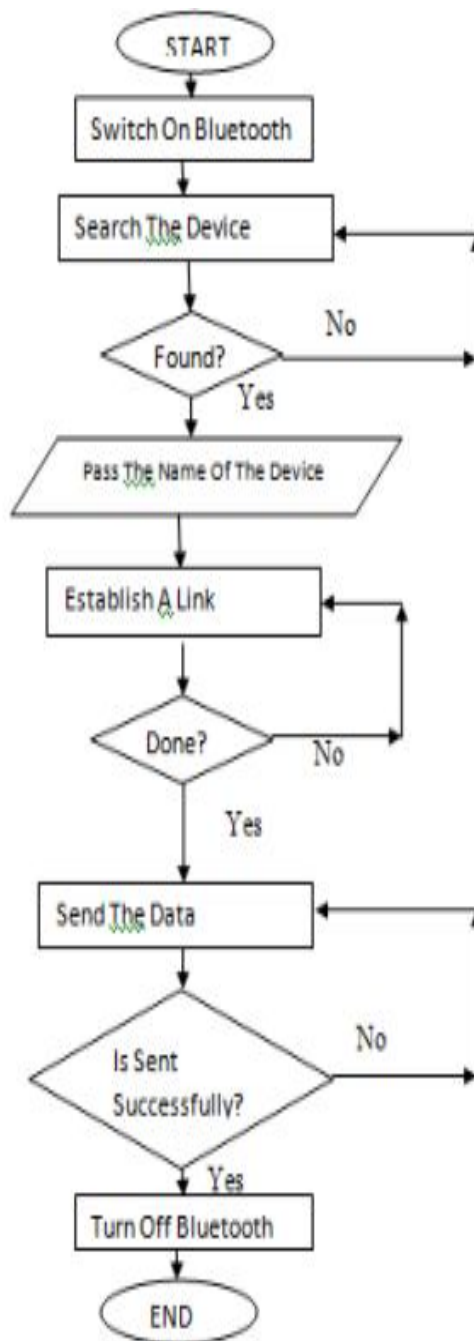
it is already explained in that O.S. Now the only driver we have to install is that of file manager to manage the transmitted data towards the place where we want to sa0ve that data.

Now, one will ask how you will install android and where? The answer is that we are using the same board as in the 1st methodology and then we will install android over the C. so as to make our effort for reading about C coding reduced.

Here we have to work on the android platform and is also easy to learn and implement.

Working Process Of Proposed Device

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C.   System Flow Chart

VI. CONCLUSION

This project is for transfer the data between two USB data drives without the help of PC or laptop. Using highly advanced microchip and with the help of growing technology the project has been successfully implemented. The handled battery operated affordable device which can ttransfers the data between two Bluetooth enabled devices without the help of PC or laptop.

This paper implemented by the old version of Bluetooth .And according to previous version Bluetooth 5.0 faster and can operate over greater distances. Bluetooth 5.0 having 3 times range as of current Bluetooth technology which means upto 30-40 meter or 100 feet. Bluetooth 5.0 is one great step for better connectivity whole being best at power optimization. Bluetooth 5.0, devices can use data transfer speeds of up to 2 Mbps. With the current version the area occupy is large as compare to previous version.an all that features are concentrated on my research paper.

REFERENCES

[1] It can transfer the data from pen drive to systems.

[2] we can handle the data of pen drive by making folders or deleting them using the display and Scroll keys.

[3] we can implement the project for reading, editing any data by installing the software's which Supports for opening the document like MS word, notepad etc

[4] It can also be implemented to provide security for data transfer with the help of Bluetooth.

[5] It can also be further implemented in Wi-Fi technology with the help of Bluetooth in a particular region.

ACKNOLEDGEMENT

REFERENCES

[1] http://en.wikipedia.org/wiki/USB_flash_drive

[2] http://en.wikipedia.org/wiki/Bluetooth

[3] http://www.bluetooth.org

[4] https://en.wikipedia.org/wiki/Microcontrolle

[5] https://en.wikipedia.org/wiki/PIC_microcontroller

[6] http://www.jgrcs.info/index.php/jgrcs/article/viewFile/657/481

[7] http://data.conferenceworld.in/BHIMA/P941-944.pd

[8] https://www.google.co.in/

[9] http://en.wikipedia.org/wiki/Bluetooth_sys\

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