

Pen Drive to Printer Data Transmission without PC

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Abstract - Portability is more important now a day's. Hence there is a need to design a system that can be carried easily. Processor used will tell the user about insertion of pen drive until that no operation should be done. Processor will fetch data from storage device after sending command to it. Data is not transferred until key is pressed. After key is pressed ARM need to transfer data to the devices.

Keywords - ARM, LCD, USB, OS.

I. INTRODUCTION

We all know that portable devices are in need now a day's. Easily we can find the applications of Universal serial bus everywhere. It is mainly used to communicate with other devices. USB has replaced other devices like serial port.

PC is used to carry out the operation this is the major drawback of USB devices. Hence to avoid this new device is implanted which does the data transfer operation. For data transfer it is used because of portability. Using this device file can be selected from storage device and transferred to other device.

II. BLOCK DIAGRAM

General idea of the project is given by block diagram and it also specifies purpose of designing. ARM processor is main hardware component in the project. Other components are keypad, LCD, power supply and USB interface. Other components are interfaced with

ARM. ARM provides the functions as per our need, hence it is chosen. USB connectors are used to connect to external hub and mouse. Removal of device and connection of device are managed by USB controller. Power and data flow is also maintained by it. Two pen drives are connected to it. When it is connected to the system initialization occurs first. By using switch cut, copy and paste options are provided. File name will be displayed in LCD. Instead of using usual keyboard switch is used. When switch is pressed it acts as an interrupt and processor will do needed operation and output is shown in LCD. LCD driver are installed in the processor to make LCD initialization.

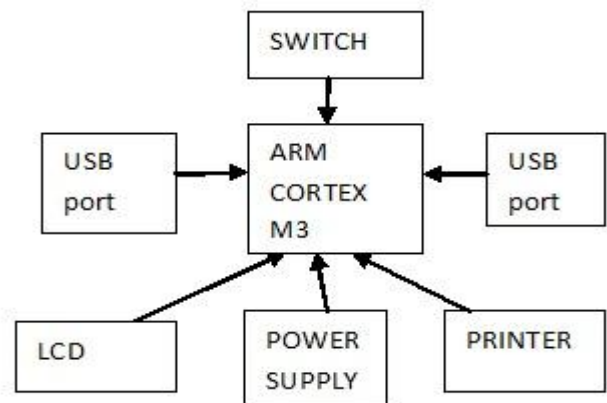


Figure 1: Block diagram
Block diagram components:
USB :

1. For many devices one interface: Instead of using different cable and connector for different devices one USB can be used.
2. Configuration is automatic: When USB device is connected to computer loading proper software driver and detection of device is done

by operating system. Before using the device there is no need to reboot the device.

LCD:

LCD is important device in embedded system. First studying of data sheet is necessary because type of interfaces, operating voltage and maximum speed of operation are given in data sheet. Pin diagram of LCD is also required.

Power supply:

Circuit will get the input from regulated power supply. Step down transformer is used to step down A.C input from main supply. It is converted to D.C by rectifier. Output is given to filter to remove A.C component.

Transmitter system flowchart:

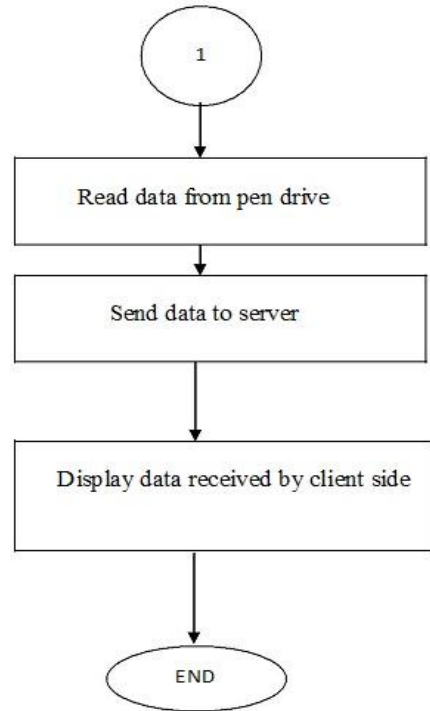
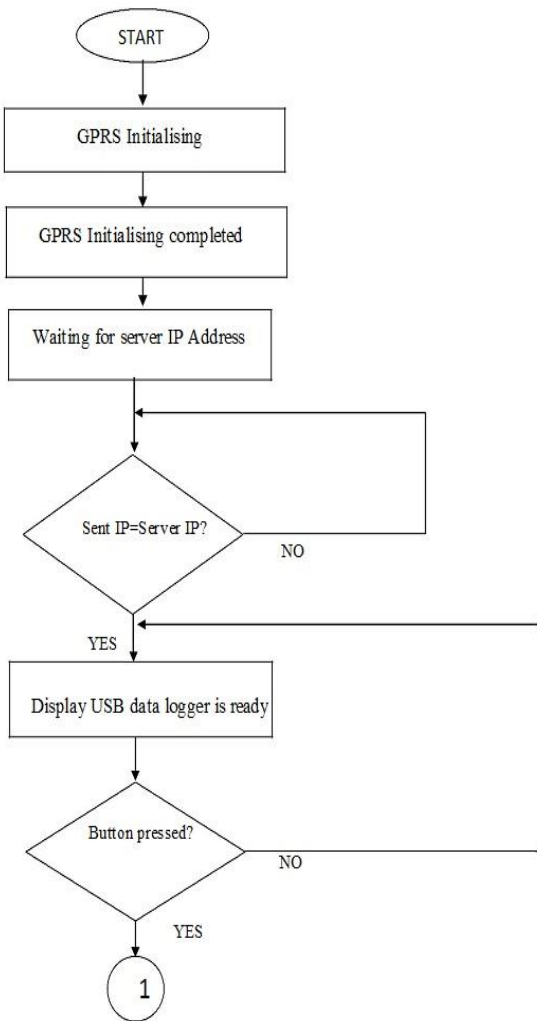
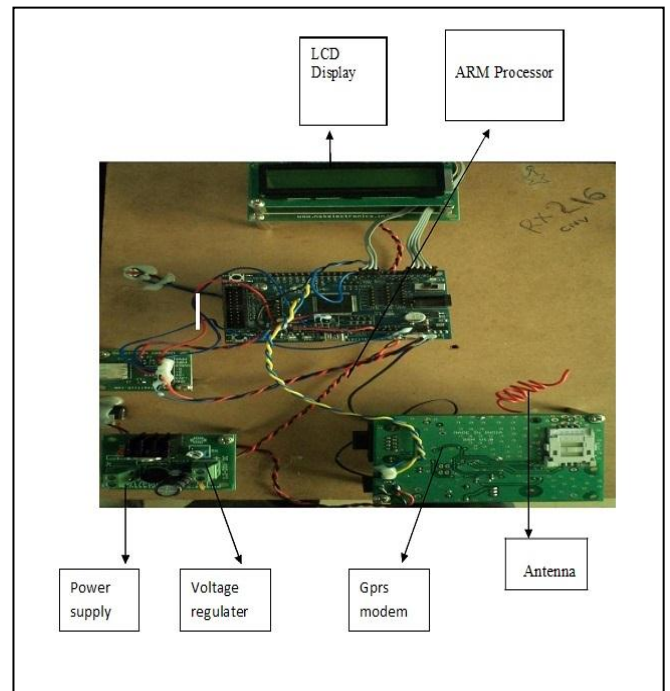


Figure 2: Transmitter system flowchart

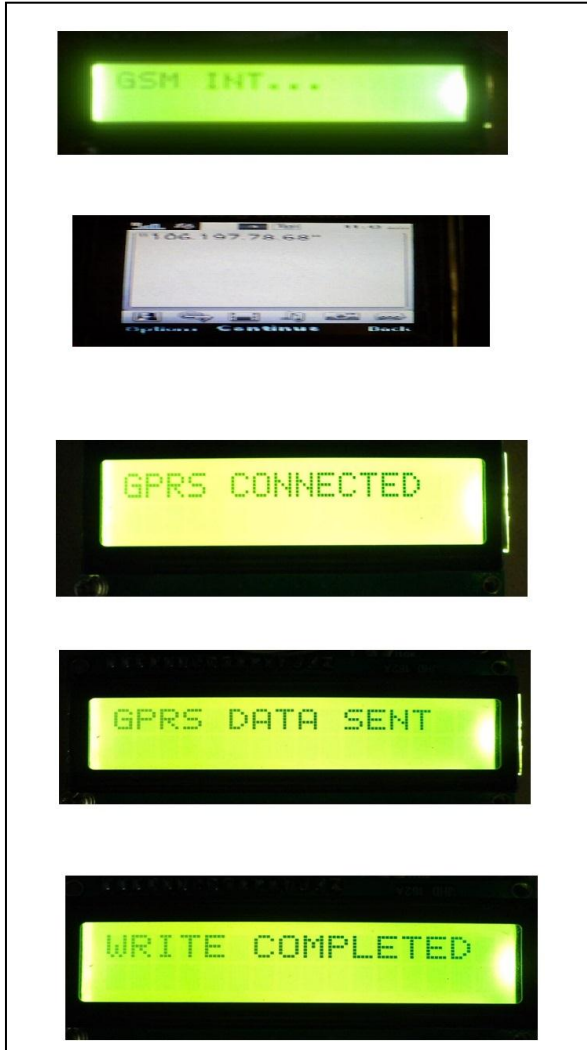
Transmitter system:



Messages are displayed on LCD

REFERENCES

- [1] Keun-GI Lee, Hye-Won Lee, Change-Wook Park, Kwon-Youp Kim, "USB pass on :secure USB thumb drive forensic toolkit", Future generation communication and networking second international conference ISBN: 978-0-7695-3431-2, 13-15 Dec. 2008.
- [2] O'Brien K, Salyers D.C , Striegel A.D, Poellabauer C, "Power and performance characteristics of USB flash drives", World of wireless, mobile and multimedia networks international symposium, 2008.
- [3] KI Forster, "DMDX: A Windows display program with millisecond accuracy", Behavior research methods – Springer, 2003.
- [4] Po-Chun Huang, Yuan-Hao Chang, Tei-Wei Kuot, Miller Lin, "The behavior analysis of flash memory storage system", Object oriented real time distributed computing (ISORC), 11th IEEE international symposium , Print ISBN: 978-0-7695-3132-8 , May 2008



IV. CONCLUSION

Project satisfies the requirement of new generation that is portability. More security is provided by Operating system which is used in the project. Project is implemented successfully by using new technology and developed by combining software and hardware features. Use of battery makes it more advantageous and any time data transfer can occur.

FUTURE SCOPE

Further improvement to this project can be done by connecting devices without using wires with the help of Bluetooth. Instead of keypad touch screen can be used.