

Handheld Device Smart Information System

¹Prof.Prasad Patil, ²Sushant Bhor, ³Akash Jadhav, ⁴Niket Pashte

¹Assistant Professor ,Electronics & Telecommunication Engineering,UCOER Pune, India
S.P. Pune University.

^{2,3,4}Electronics & Telecommunication Engineering,UCOER Pune, India
S.P. Pune University.

Abstract

A smart information system is designed for museum, exhibition etc. This smart information system gives audio information about particular object. visitors is move from one place to other place in museum.A particular object holds RFID tag id when device is comes in area of painting as soon as the particular information will play about painting automatically .on one card four information can be play.A RFID compares tag and reader. accelerometer is uses for information system based on coordinates left ,right ,up ,down.

Index Terms — RFID reader ,arm ,headset.

I. INTRODUCTION

Our purpose is that improve awareness about museum guide system.In museum, guides are allocate only at certain times and group of visitors. so, every visitor will not properly get guidance .so overcome to problem, handeld device smart system is designed. With Visitors may enjoy fun with visiting art museums. our smart system will make full use of exhibits information about painting, statues, coming form digital museum system. In this paper .audio flies are tagged with location co-ordinates and a tolerance range. we will discuss key mehods of system the rest of paper organized as follows, section 2 next related work, 3 block diagram,4 flowchart, 5 figure, 6 conclusion

II. RELATED WORK

In previous,which is small remote like device that allows user to hear short stories related work of art. Another headset-less audio system consisting of the physical device that the visitor holds hand speakers which deliver pointed audio that can only be heard near the work of art. In next system,the Social interaction as a primary design goal. the system makes to share audio information. In the RFID Based guide system explores RFID and handheld device to museum better explore exhibition projects.

III. BLOCK DIAGRAM

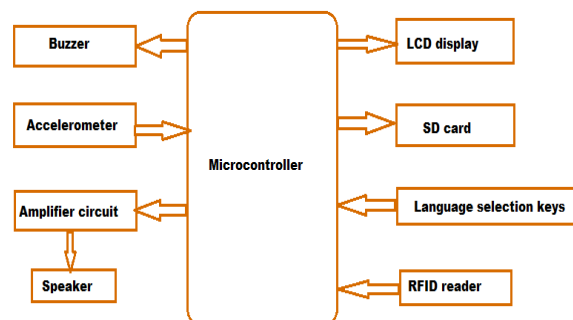
A. RFID tag:

RFID uses to automatically identify and track tags attached to objects.The basic electronics device known as tags communicate to readers.Tag is attached to an item or object.RFID tag comes in various shape and sizes in market.RFID tags are categorized into active and passive.That uses radio frequency to communicate between tag and reader.active rfid tags are powered by internal power source continuously power the tag and its RF commication circuitary.the passive RFID depends on RF energy transferred from the reader tag to power tag. A passive tag as compare to much lighter than active tags,low cost

B. RFID reader:

The reader is able to communicate to the tag using by send or receive data. The distance between the tag and reader for the electromagnetic waves to be strong for enough for electronic device to communicate with each other.RF communications between tag & reader ,the system may take action based on output of Rf communications.

RFID uses information stored on the tag.



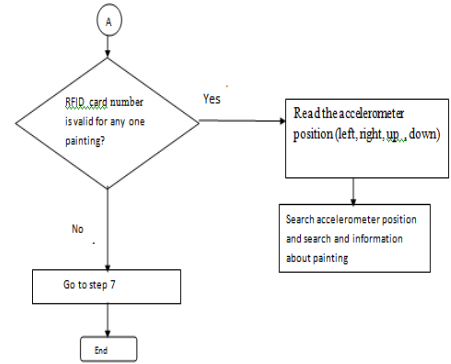
C. Lpc 2138

The lpc2138 microcontrollers are based on a 16/32-bit ARM7TDMI-S CPU with real-time simulation and embedded with 512kb of embedded high-speed flash memory. features like single 10-bit dac ,8-channel 10-bit adc's,a 128-bit wide memory

interface and a unique accelerator architecture enables 32-bit code execution. at max clk rate. due to tiny size ,low power consumptions uses by system.

D. 3-axis accelerometer

An accelerometer is electromechanical device that will measure acceleration forces. by measuring the amount of static acceleration due to gravity ,you can find out the angle the device is tilted at with respect to the earth. by sensing the amount of dynamic acceleration, you can analyze the way the device is moving.lpc2138 will take reading from accelerometer within a fixed interval of time and do the necessary operation according to requirement of the application.



Figure

E. LCD display

LCD is thin,flat display device use to show outout of the smart information system..16*2 lcd which indicates 16 columns and 2 rows.so,the characters display on 16*2 lcd.graphic displays can be used

Flowchart

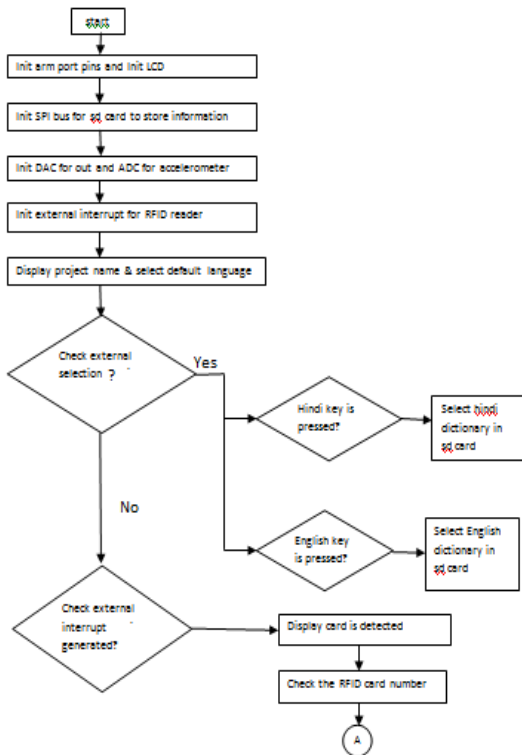


Figure name: circuit setup

IV. CONCLUSION

The “Handheld device smart information system” has been successfully completed and tested with integration of every hardware component .The system using very simple and easily available components making light weight,easily handled.this helps in visitor in museum premises.finally we conclude that,this smart system having good future and scope for research.The “Wheel chair” can be implement for the physically handicapped persons.

ACKNOWLEDGEMENT

We are thankful to our project guide Prof .P. R. Patil & head of department, Prof .V .B. Nikam who helped us in all possible ways .we are also deeply indepted to all the facility provided.

REFERENCES

- [1] claire swedberg ,drents mudeum uses RFID to create a personalized visitor experience,RFID journal live 2013 march.
- [2] yo-ping hsandne uang,shan-shan vang frodeeika RFID-based guide gives museum visitors more freedom ,IEEE computer society ,march/april 2011(vol.13,no.2)
- [3] Radio frequency identification ,from Wikipedia ,<http://en.wikipedia.org/wiki/Rfid>.march,2007
- [4] RFID-Enhanced Museum for Interactive Experience Rasoul Karimi, Alexandros Nanopoulos, Lars Schmidt-Thieme
- [5] Requirement Analysis and Implementation of Palm-Based Multimedia Museum Guide Systems@2004IEEE