

HIGH PROTECTION VOICE IDENTIFICATION BASED BANK LOCKER SECURITY SYSTEM WITH LIVE IMAGE AUTHENTICATION

G. VIJAYA LAKSHMI, M. KIRANMAI

Abstract:- When human beings were on earth, need of various things emerged. As years passed and with tremendous development people started earning money, property, jewelry and many more precious things. With huge development people felt a need to secure their earnings. In today's a man's life the money security is an important aspect as he earns the money by his hard work, and banking is known for this. It is not enough to have these accessories, but security of this is very important, for this purpose we keep them in a bank locker. Still, we often hear or read in a newspaper that some fake person has access the locker of another person and have stolen money. In order to overcome this type of frauds, authentication of the person who wants to use the locker is very important. To overcome this security threat, a security system has been proposed using voice identification, face detection and GSM technology.

I. INTRODUCTION

Security is of fundamental concern and in this occupied, centered world, human can't find ways to deal with offer security to his mystery resources physically. Or maybe, he finds an elective which can give a certain security and moreover atomized. In the inescapable system society, where individuals can without quite a bit of a stretch access their information at whatever point and wherever, people are also looked with the peril that others can without a doubt get to a comparable information at whatever point and wherever.

In perspective of this danger, individual unmistakable verification advancement, which can perceive enlisted real customers and fakers, is by and by delivering interest. All things considered passwords, ID cards and PIN check techniques are being used anyway the obstacle is that the passwords could be hacked and a card may be stolen or lost. The most secured system is interesting imprint affirmation in light of the fact that a one of a kind finger impression of one individual never organizes the other.

Biometrics looks at consistently consolidate novel finger impression, stand up to, iris, voice, check, and hand geometry affirmation and confirmation. Various distinctive modalities are in various periods of change and evaluation. Among these open biometric properties extraordinary stamp winds up being a standout among

different characteristics giving awesome clutter extent, high exact similar to security and besides solid.

There are certain conditions which are to a great degree disturbing like when a man keeps himself out of his home or office or he leaves his key inside or sometimes when a cheat just breaks the jolt and takes everything. These sorts of conditions constantly burden people who use manual passage rush with keys. In spite of the way that in a couple of spots people use clever cards, there might develop a condition when someone loses the card or keeps the card inside. By then in various circumstances there are gatekeepers for locking houses or work environments and securing the keys.

In any case, then again there are times when a man responsible for the keys presumably won't be available or has gone to some emergency plan, which can cause unfortunate deferral for people who require the key straightaway. These are a part of the issues that people may stand up to while using keys or adroit cards. That is the time when our system, extraordinary stamp based jolt structure turns out to be conceivably the most imperative factor. Our layout is executed to give better securities as customers don't need to review passwords and needn't waste time with any sort of keys or cards that as often as possible get lost. If someone's interesting imprint is affirmed in the system he would not stand up to any sort of deferrals to go into a room.

Novel stamp affirmation is a standout among the most secure structures in light of the fact that an interesting finger impression of one individual never organizes with the others. In this way unapproved access can be confined by arranging a jolt that stores the fingerprints of something like one endorsed customers and open the system when a match is found.

Bio-estimations endorsement turns out to be a standout among different attributes in light of the fact that the skin on our palms and soles demonstrates a stream like case of edges on each fingertip which is excellent and perpetual. This establishes finger connection a surprising unmistakable verification for everyone. The reputation and resolute quality on remarkable finger impression scanner can be adequately theorized from its usage in late hand-held gadgets like cell telephones and PCs. Bank is a

financial organization which gives us financial services like issuing money, sparing cards, and so forth.

Procuring money and sparing it is essential part in man's life for getting a charge out of an agreeable monetary status and thus keeping money division assumes an indispensable job for every one of us. It is important to keep the money, trimmings and other significant under safe guardianship since robbers now days have a ton of present day equipment with them. According to one citation on the off chance that one looses wellbeing it very well may be regained, yet one loses his profitable riches it requires excessively investment to remember it. To secure our assets banks give some different benefits like giving their customers wellbeing lockers to store their resources.

The requirement for safe locker systems isn't just in banks yet additionally in different foundations like in Offices, shops business foundations, financial establishments, Petrol stations, Hotels and Hospitals. This need is progressively felt in nowadays because of the expansion in the security concerns.

II. PROPOSED BLOCK DIAGRAM

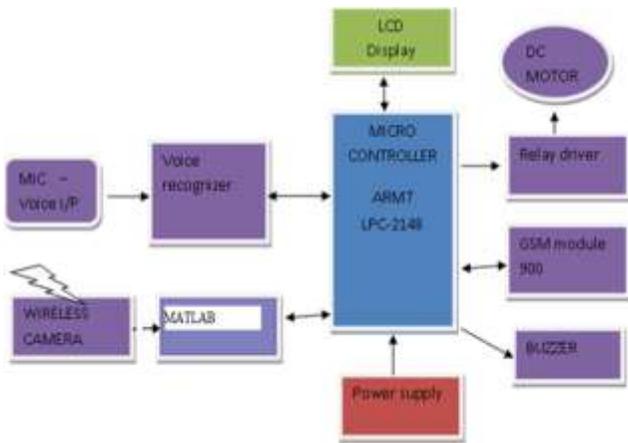
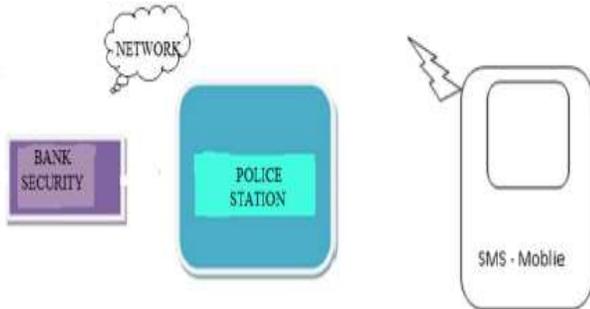


Fig. I. Transmitter section



III. Execution OF SOFTWARE

Kiel u Vision4 Software

The μ vision IDE from Kiel consolidates broaden organization, make workplaces, source code adjusting, program investigating, and complete reenactment in one successful condition. The μ vision progression arrange is definitely not hard to-use and supporting quickly make introduced programs that work. The μ vision supervisor and debugger are joined in a single application that gives a reliable embedded endeavor change condition.

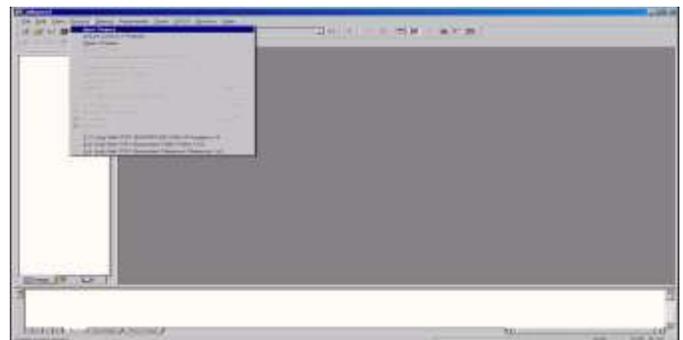
Procedural Steps for Compilation, Simulation and Dumping

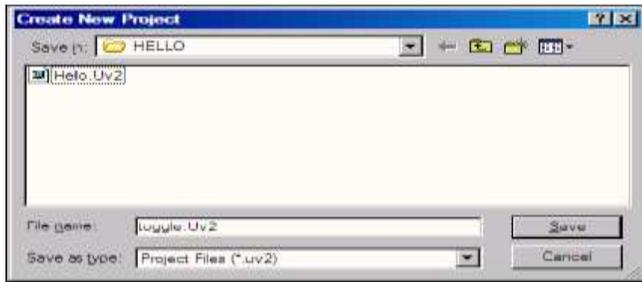
1. Open Kiel from the start menu.
2. The figure underneath exhibits the key names of the windows insinuated in this record.



Starting a new Assembler Project

- Select new project from the project menu.
- Name the project 'toggle.a51'
- Click on the save button.

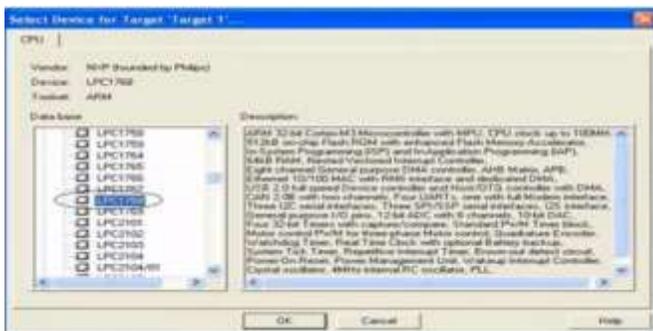




- The device window will be displayed.
- Select the part will be using to test with. For now will use the NXP LPC2148.
- Double click on the NXP.

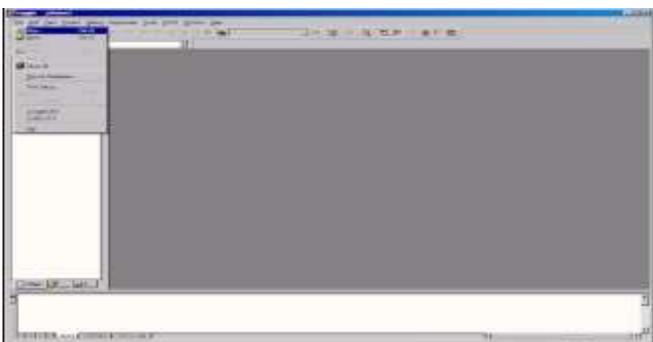


- .Scroll down and select the lpc2148.
- .Click ok.

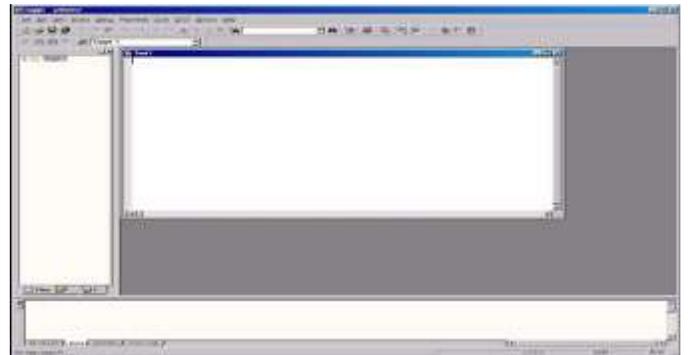


Creating Source File

- Click file menu and select new.



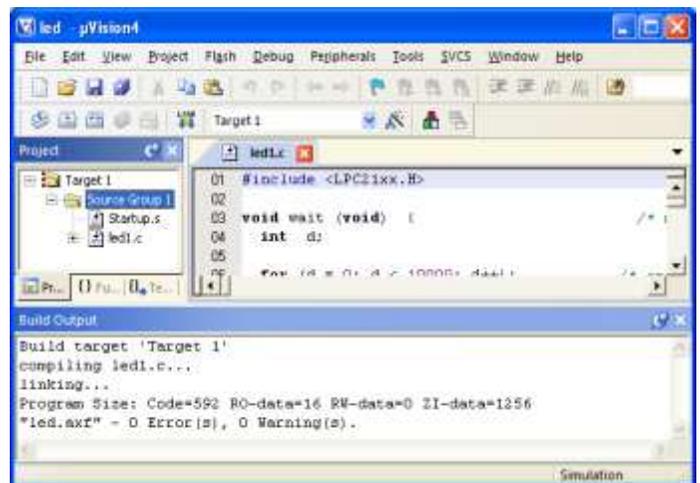
- A new window will open up in the KeilIDE.



- Copy the example to the right into the new window. This file will toggle ports 1 and
- With a delay.
- Click on file menu and select save as....
- Name the file toggle.a51.
- Click the save button.

Adding File to the Project

- Expand target 1 in the tree menu.
- Click on project and select targets, groups, files...
- Click on groups/add files tab.
- Under available groups select source group 1.
- Click add files to group... button.
- Change file type to asm source file(*.a*; *.src) and click on toggle.a51
- Click add button and click close button.
- Click ok button when return to target, groups, files... dialog box and expand the source group 1 in the tree menu to ensure that the file was added to the project.



Creating HEX for the part

- Click on target 1 in tree menu.
- Click on venture menu and select alternatives for target 1
- Select target tab.
- Change XTAL (MHZ) from 50.0 to 11.0592.
- Select yield tab.
- Click on make hex document check box.
- Click alright catch.
- Click on venture menu and select remake all objective documents
- In the manufacture window it ought to report '0 blunders (s), 0 notices'.
- Now prepared to program part.

Testing Program in Debugger

- Comment out line acall delay by putting a semicolon toward the start. This will permit seeing the port change instantly.
- Click on the document menu and select spare.
- Click on venture menu and select revamp all objective records.
- In the assemble window it ought to report '0 mistakes (s), 0 notices'.
- Click on investigate menu and select begin/stop troubleshoot session.

Running the Kiel Debugger

- The Kiel debugger ought to be presently be running.
- Click on peripherals. Select i/o ports, select port 1
- A new window ought to port will fly up. This speak to the port and sticks
- Step through the code by squeezing f11 on the console. The parallel port 1 box ought to change as totally venture through the code.
- To exit out, tap on troubleshoot menu and select begin/stop investigate session.

Downloading HEX document into MCU board

The strategy to download HEX document into blaze memory of MCU in board is to utilize program streak enchantment that is associated with MCU through serial port of pc.

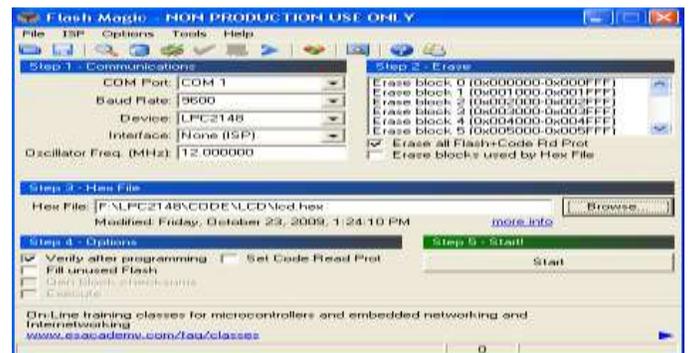
Continuing to Download HEX document into MC

- Interface RS232 link between RS232 serial port of pc and board UART-0 (CN3).
- Supply control into board; for this situation, can see red LED1 is in status on.

- Set jumper BR4 (int1) in on state.
- Run program streak enchantment, it will show come about as appeared in figure 1.1
- Start setting the underlying qualities into progRAM as sought, so design values into program as takes after:
- Select comport comparing with (in this illustration, it is COM1).
- Set the baud rate to 9600.
- Set gadget to be LPC2148.
- Set interface to be none ISP.
- Set gem oscillator with MHZ relating with the valueinternal board. In
- This case, it is 12.000mhz, so should set to be 12.
- Press ISP stack switch (s1) and reset switch (s2) on board "ARM7 ILPC2148
- development board" to reset MCU to keep running in boot loader taking after the

Processes:

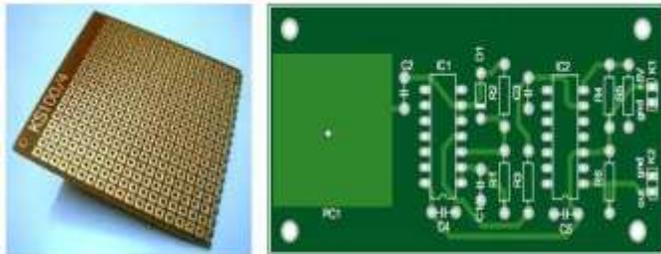
- Press ISP stack switch (s1) and hold.
- Press reset switch (s2) while ISP stack switch (s1) is being held.
- Remove reset switch (s2) however ISP stack switch (s1) is being held.
- Lastly, expel ISP stack switch (s1).
- Select organization of eradicating information to be "delete all glimmer + code rdprot".



- Set option to be "verify after programming".
- Click "browse" to select hex file for downloading.
- Click "start", program flash magic will start downloading data into MCU instantly. In this case, can see the status operation at status bar and must wait for the operation until it is completed.
- When the operation of program is complete, press reset switch (s2) on board and MCU will start running follow the downloaded program instantly.

Proteus

Generally we are listening the words **PCB's, PCB layout, PCB designing**, ect. But what is PCB? Why we are using this PCB? We want to know about all these things as a electronic engineer. PCB means Printed Circuit Board. This is a circuit board with printed copper layout connections. These PCB's are two types. One is dotted PCB and another one is layout PCB. The two examples are shown in below.



Dotted PCB

Layout PCB

What is the main difference between the dotted PCB and layout PCB?

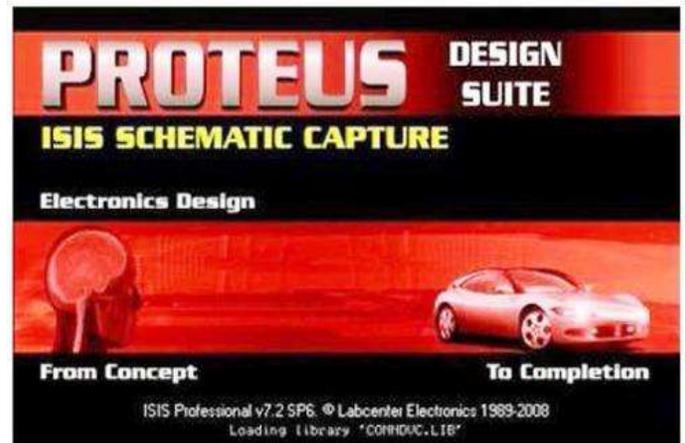
In dabled PCB board just spots are open. As demonstrated by our essential we can put or implant the portions in those holes and add the sections with wires and restricting spread. In this specked PCB we can make the circuit as out wish yet it is hard to design. There are such an expansive number of inconveniences are there. Those are partner the most ideal pins, keeping up a vital separation from shot affiliations and so on. Heading off to the arrangement PCB this is anything but difficult to layout. In any case we select the our circuit and by using particular PCB sketching out software's, plan the arrangement of the circuit and by shivering technique setting up the copper design of our circuit and fix the portions in the correct spots. It is anything but difficult to design, put aside less chance to design, no inadequacies, looking not too bad and extraordinary.

Up to now we have analyzed about sorts of PCB's and difference between the sorts. By and by we can inspect about PCB sketching out programming. There are such a substantial number of PCB arranging programming projects open. Some are Express PCB, fledgling PCB, PCB Elegance, and free PCB, open circuit plan, zenith PCB and Proteus and so on. Beside lingering Proteus is particular. Proteus is design suit and PCB organize sketching out programming. In Proteus we can design any circuit and copy the circuit and make PCB design for that circuit.

Prologue to Proteus:

Proteus expert is a product blend of ISIS schematic catch program and ARES PCB format program. This is an effective and coordinated improvement condition. Instruments in this suit are anything but difficult to utilize and these apparatuses are extremely valuable in training and expert PCB planning. As expert PCB outlining programming with coordinated space based auto switch, it gives elements, for example, completely highlighted schematic catch, exceptionally configurable plan rules, intuitive SPICE circuit test system, broad support for power planes, industry standard CAD/CAM and ODB++ yield and incorporated 3D watcher.

Up to know we have examined about the fundamentals and programming depiction. Presently we are going into the outlining area. Run the ISIS proficient program by tapping the symbol on the desktop, then this sprinkle screen will show up.

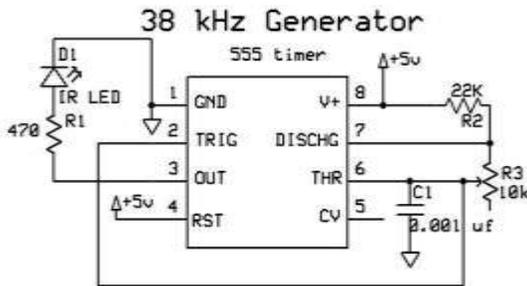


Next, a work space with interface buttons for designing circuit will appear as shown in figure below. Note that there is a blue rectangular line in the workspace; make sure that whole circuit is designed inside the rectangular space.

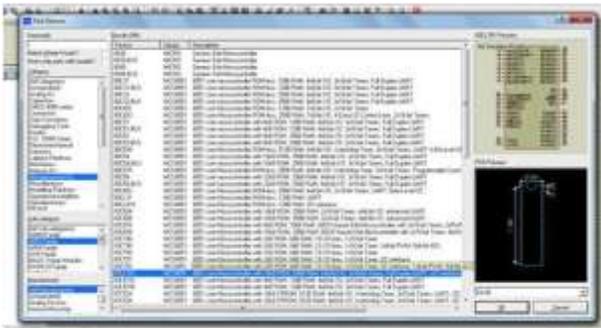


Next step is selecting the components to our required circuit. Let us take one example is designing of 38 kHz

frequency generator by using 555 timer IC. The circuit diagram is shown in below image.



In the above circuit the required components are 555 timers IC, 470Ω and 22KΩ Resistors, 10KΩ Variable resistor, 0.001µF capacitor and one IR LED. So select the components from library. In menu bar library > pick device/ symbol. Then one window will open that shown in below.

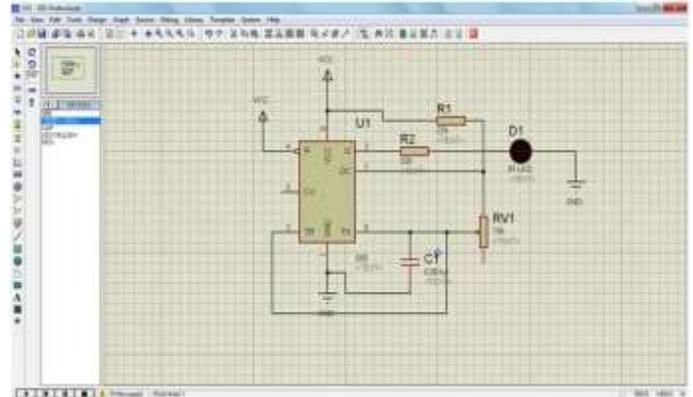


There is another way to select the components. In work space left side there is a tool bar. In that tool bar click the component mode button or pick from library.

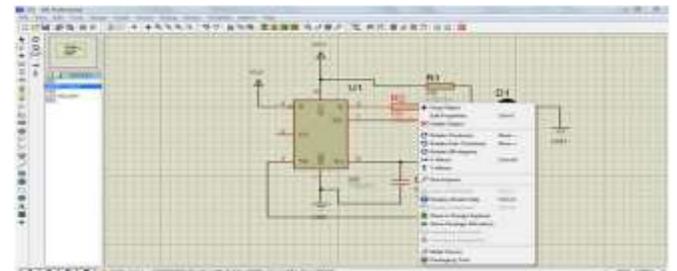


Select the all components from library, that components are added to devices list. Click on the device and change the angle of the device by using rotate buttons. Then click

in the work space then the selected component is placed in work space. Place all the devices in work space and put the cursor at the component pin end then draw the connections with that pen symbol. Connect all the components according to circuit then that designed circuit is shown in below image.



If any modifications want to do to the component place the mouse point and click on right button then option window will open. That is shown in below figure.



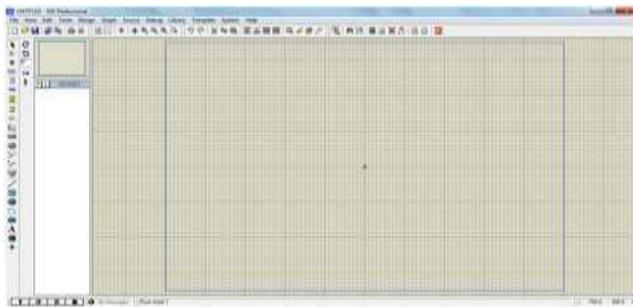
After fulfillment of designing recovery with some man and debug it. This is virtual simulation implies without making circuit we can see the outcome in for all intents and purposes through this software and we can design the PCB layout to our required circuit with this software.

Up to now we have examined about kinds of PCB'S and distinction between the sorts. Presently we can examine about PCB designing software. There are such a large number of PCB designing software accessible. Some are express PCB, falcon PCB, PCB style, free PCB, open circuit design, peak PCB andproteus and so on. Aside from residual Proteus is unique. Proteus is design suit and PCB layout designing software. In Proteus we can design any circuit and recreate the circuit and make PCB layout for that circuit.

Introduction to Proteus

Proteus professional is a software combination of ISIS schematic capture program and territories PCB layout program. This is a powerful and incorporated improvement condition. Instruments in this suit are anything but difficult to utilize and these devices are exceptionally helpful in training and professional PCB designing. As professional PCB designing software with incorporated space based auto switch, it gives highlights, for example, completely included schematic capture, exceedingly configurable design rules, interactive zest circuit test system, broad support for power planes, industry standard cadcam & odb++ yield and coordinated 3d watcher.

Up to know we have examined about the nuts and bolts and software depiction. Presently we are going into the designing area. Run the ISIS professional program by tapping the symbol on the work area, at that point this sprinkle screen will show up.



Next step is selecting the components to our required circuit. Let us take one example is designing of 38 KHZ frequency generator by using 555 timer IC. The circuit diagram is shown in below image.

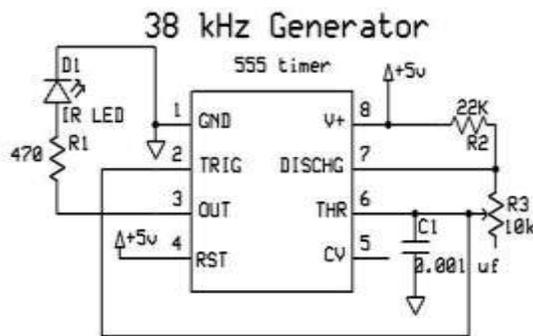
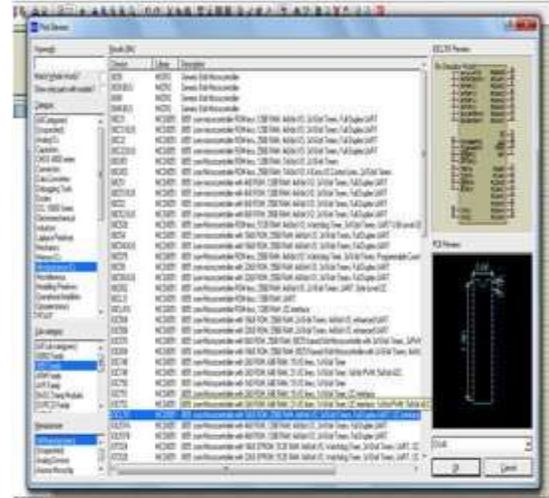


Figure 6.3 Circuit Diagram of 38 KHZ Generator

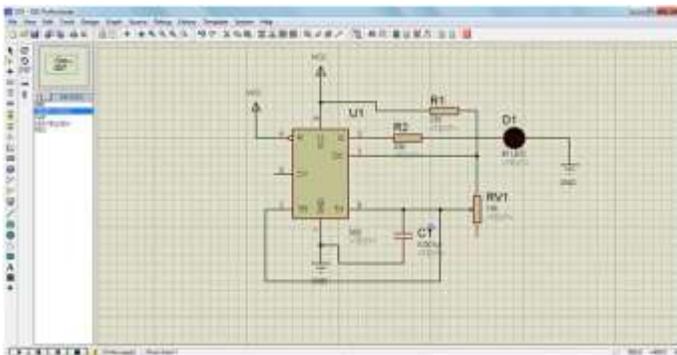
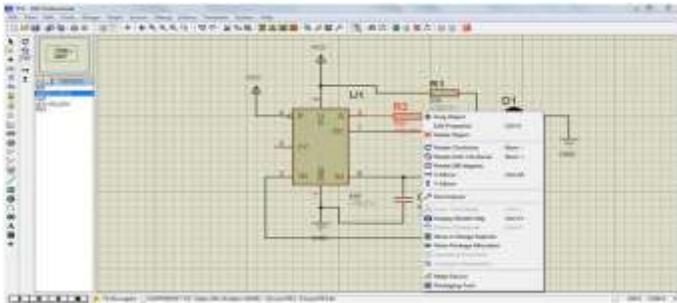
In the circuit the required components are 555 Timer IC, 470? And 22k?.Resisters, 10 k? Variable resistor, 0.001µf capacitor and one IR-LED. So select the components from library. In menu bar library > pick device/ symbol. Then one window will open that shown in below.



There is another way to select the components. In work space left side there is a tool bar. In that tool bar click the component mode button or pick from library.



Select the all parts from library, that segments are added to devices list. Tap on the device and change the edge of the device by utilizing turn catches. At that point click in the work space then the chose segment is put in work space. Place every one of the devices in work space and put the cursor at the part stick end at that point draw the associations with that pen image. Interface every one of the segments as per circuit then that designed circuit is appear in below image.



In the event that any changes need to do to the segment put the mouse point and tap on right catch then choice window will open. That is appeared in underneath figure.

After consummation of outlining save with some mane and troubleshoot it. This is virtual simulation implies without making circuit we can see the outcome in basically through this software and we can plan the PCB format to our required circuit with this software.

CONCLUSION

An advanced and cost effective feature for ATM security has been proposed. It can be installed in the ATM at some hidden place so that it is safe. This system is distinctive in many ways from existing ATM intrusion and theft control systems. Existing system are either very expensive and not reliable. The proposed system is reliable, inexpensive with appropriate design.

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AUTHORS

1. G. VIJAYA LAKSHMI,

M. TECH scholar, DECS, ECE department, Shri Shirdi Sai Institute of Science & Engineering, Ananthapur.

2. M. KIRANMAI,

Assistant Professor in the department of ECE, Shri Shirdi Sai Institute of Science & Engineering, Ananthapur.