WIRELESS NOTICE BOARD DISPLAY USING BLUETOOTH

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PROBLEM STATEMENT

- PRESENTLY ALMOST ALL ELECTRONIC NOTICE BOARDS ARE DESIGNED USING WIRED ONE OF THE DRAWBACKS OF THE DESIGN IS THE SYSTEM IS INFLEXIBLE IN TERM OF PLACEMENT. THE COMMON NOTICE BOARD CANNOT BE PLACED ANYWHERE BECAUSE OF THE MESSY WIRE

- WE CAN OBSERVE THAT NOTICE BOARD IS PRIMARY THING IN ANY INSTITUTION / ORGANIZATION OR PUBLIC UTILITY PLACES LIKE BUS STATIONS, RAILWAY STATIONS AND PARKS. BUT STICKING VARIOUS NOTICES DAY-TO-DAY IS A DIFFICULT PROCESS.SO THAT'S WHY WE ARE PROPOSING A NEW SYSTEM NAMED WIRELESS NOTICEBOARD USING A BLUETOOTH MODULE.

VISSION

- OUR VISION IS THAT **IN THIS MODERN WORLD WHERE EVERYTHING IS DIGITALISED, WHY NOT CONVENTIONAL NOTICE BOARD GETS A NEW LOOK. SO, WE WANT TO MAKE A BLUETOOTH CONTROLLED NOTICE BOARD WHICH IS VERY SIMPLE.**
- AS THE TECHNOLOGY IS ADVANCING EVERY DAY THE DISPLAY BOARD SYSTEMS ARE MOVING FROM NORMAL HAND WRITING DISPLAY TO DIGITAL DISPLAY.

MISSION

- THIS PROPOSED SYSTEM HAS MANY UPCOMING APPLICATIONS IN FUTURE IN THE FIELD OF EDUCATIONAL INSTITUTIONS AND ORGANIZATIONS, CRIME PREVENTION, TRAFFIC MANAGEMENT, RAILWAYS, ADVERTISEMENTS ETC. BEEN USER FRIENDLY, LONG RANGE AND FASTER MEANS OF CONVEYING INFORMATION ARE MAJOR BOLSTERS FOR THIS APPLICATION.

ABSTRACT

- NOTICE BOARDS ARE OF PRIMARY IMPORTANCE IN ANY ORGANIZATION AND IN PLACES SUCH AS BUS AND RAILWAY STATIONS, WHEN A NEED OF FOR CIRCULATING NOTICES ARISES IT BECOMES TEDIOUS JOB. THUS AN ELECTRONIC NOTICE BOARD IS AN EXTREMELY EFFICIENT METHOD OF PROVIDING MESSAGES. IT IS DIFFICULT TO UPDATE THE MESSAGES AT ONCE. THUS THIS PROJECT FOCUSES ON DEVELOPMENT OF A WIRELESS BOARD. THIS APPARATUS HAS THE CAPABILITY OF DISPLAYING THE LATEST MESSAGES USING AN ANDROID APPLICATION FROM A SMART PHONE. THIS HELP SUSINTRANSMITTING ANY MESSAGE WITH IN A FRACTION OF A SECOND ELIMINATING ANY DELAY BY SIMPLY SENDING A COMMAND WHICH IS MUCH EFFICIENT COMPARED TO ANY OTHER TRADITIONAL METHOD OF TRANSMITTING THE MESSAGE. THUS THE PROPOSED TECHNOLOGY CAN BE OF GREAT UTILITY IN MANY PUBLIC PLACES SUCH AS MALLS OR COMMERCIAL BUILDINGS TO ENHANCE THE SECURITY SYSTEM AND ALSO INCREASE THE AWARENESS REGARDING EMERGENCY SITUATIONS AND AVOID ANY POSSIBLE DANGERS.

LITERATURE SURVEY

- RECENTLY I HAD WENT TO A RAILWAY STATION WHERE THERE IS ONE MAN WHO IS CHANGING THE NOTICE BOARD MANUALLY FOR EVERY 15 MINUTES AND ALSO IN MALLS THERE IS A PERSON WHO IS CHANGING THE INFORMATION ON LCD DISPLAY BY USING THE KEYBOARD. I ASKED THEM ABOUT THIS WIRE CONNECTED LCD DISPLAY .THEY ARE FEELING BAD ABOUT THIS WIRE CONNECTED LCD DISPLAY BECAUSE THEY HAVE TO WORK MANUALLY AND THERE IS NO SAFETY FOR THEIR LIFES IF MAY ANY SHORT CIRCUIT HAPPENS.

- AND THEN THE IDEA OF WIRELESS NOTICEBOARD CAME INTO MY MIND AFTER THAT I HAVE SEARCHED ABOUT IT IN THE GOOGLE.BY ALL THIS TO OVERCOME THE DISADVANTAGES WE WANT TO DEVELOP THE WIRELESS NOTICEBOARD

EXISTING SYSTEM

- YOU MAY HAVE SEEN MANY CONVENTIONAL DIGITAL NOTICE BOARDS WHERE ONE HAS TO UPDATE THE DISPLAYED INFORMATION BY MANUALLY CHANGING THE MESSAGE USING A KEYBOARD OR SOME OTHER TOOL

- ANOTHER COMMON WIRE CONNECTION PROBLEM IS WHEN YOU FIND TWO OR MORE WIRES HELD UNDER A SINGLE SCREW TERMINAL ON A SWITCH OR OUTLET. THIS IS A CLEAR SIGN OF AMATEUR WORK AND A DISTINCT FIRE HAZARD.

- EXISTING SOLUTION ARE HAVING THESE PROBLEMS SO THAT'S WHY ACCORDING TO LATEST TECHNOLOGY WE WANT TO DEVELOP A WIRELESS NOTICEBOARD DISPLAY WHICH IS VERY HELPFUL FOR MANKIND TO DO THEIR WORK FAST AND SECURE.

PROPOSED SYSTEM

- OUR SOLUTION IS THAT CONVENTIAL NOTICE BOARDS CAN EASILY BE CONVERTED INTO A WIRELESS NOTICE BOARD WITH OUT WRITING THE MESSAGE MANUALLY THROUGH KEYBOARD .

- OUR WAY TO SOLVE THIS PROBLEM IS ONE USING A BLUETOOTH. BY INTEGRATING THE BLUETOOTH, THE INFORMATION ON THE LCD PANEL CAN BE UPDATED WIRELESSLY THROUGH OUR SMARTPHONE.

- HERE HC05 BLUETOOTH MODULE IS CONNECTED TO ARDUINO UNO WHICH RECEIVES THE DATA SENT FROM THE SMARTPHONE APPLICATION. THEN ARDUINO WILL PROCESS THE DATA AND DISPLAY THE INFORMATION ON THE LCD BOARD.

HARDWARE REQUIRED

- 16*2 LCD MODULE

- BLUETOOTH MODULE HC 05

- ARDUINO UNO

- 1K OHM RESISTOR

- HALF BREAD BOARD

- JUMPER WIRES

- USB PORT

SOFTWARE REQUIRED

- THE SOFTWARE WHICH IS BEEN USED FOR THIS PROJECT IS "C" PROGRAMMING .

- WE WILL INSTALL AN APPLICATION CALLED ARDUINO AUTOMATION BY USING SMART PHONE FOR SENDING THE DATA TO THE ARDUINO THROUGH BLUETOOTH.

SWOT ANALYSIS:

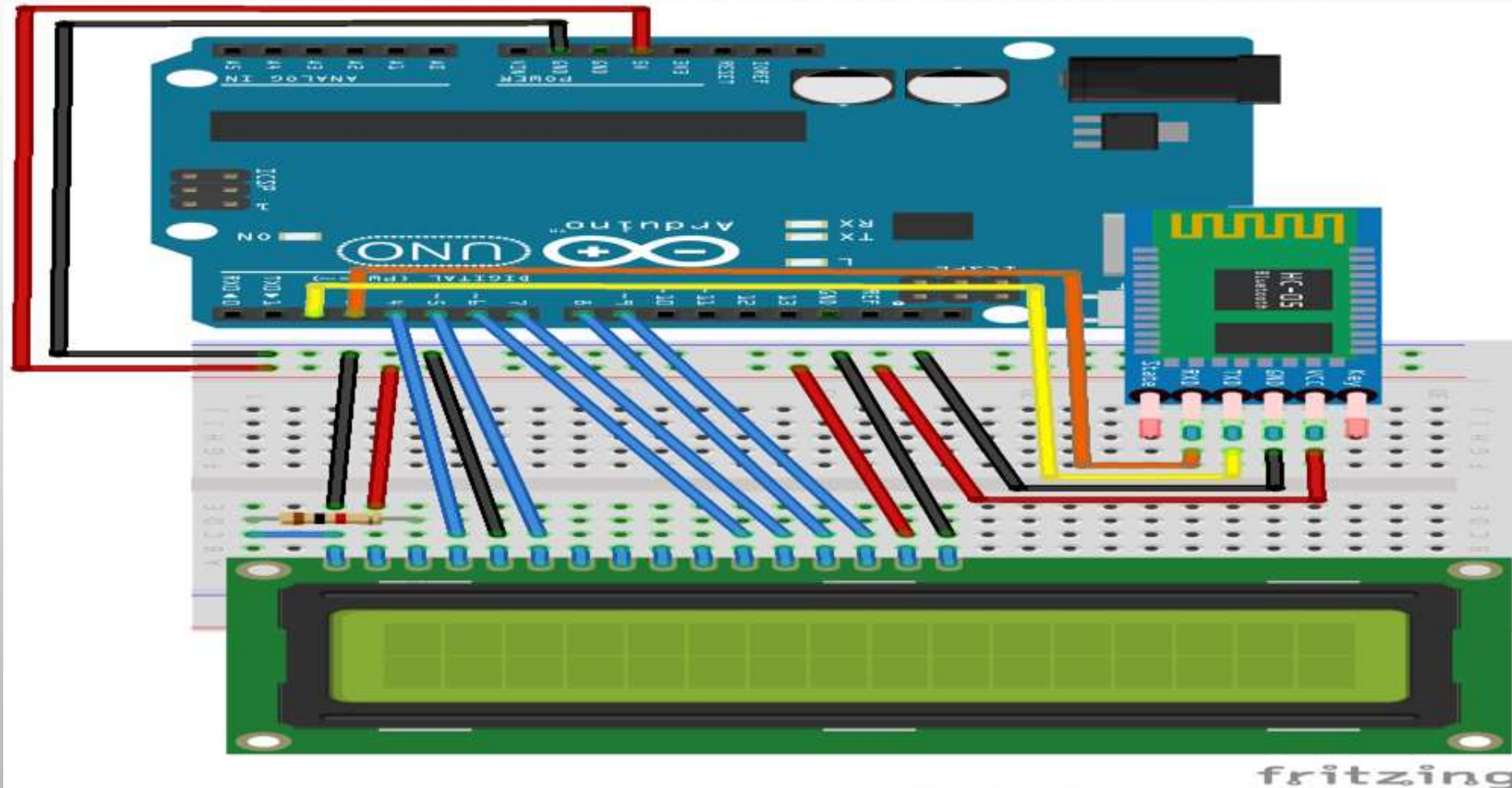| STRENGTHS:	WEAKNESS:
Electronic notice boards are the essential thing in any organizations or public spots like transport stand, railroad station or in the business places like universities, schools, banks and so forth presently the notification board is overseen or controlled physically.	**Multiple arduino devices can't receive the data from a single Bluetooth module .** **It does not support multiuser access** **Single person can can send the data to the arduino by using Bluetooth module through the smart phone application.**
OPPORTUNITIES: To provide fastest medium that notifies and conveys important notices and messages, from administration to students within colleges and in bigger organizations. All with the only effort of typing and displaying. In future with more modifications such as the use of Bluetooth, use of graphics LED display, use of internet to directly display a webpage, etc.	THREATS: During the designing and implementation of this project we may go with the errors while uploading the code. In case of any powercut we can't access our wireless notice board lcd display.

CIRCUIT DIAGRAM

DESIGN AND IMPLEMENTATION