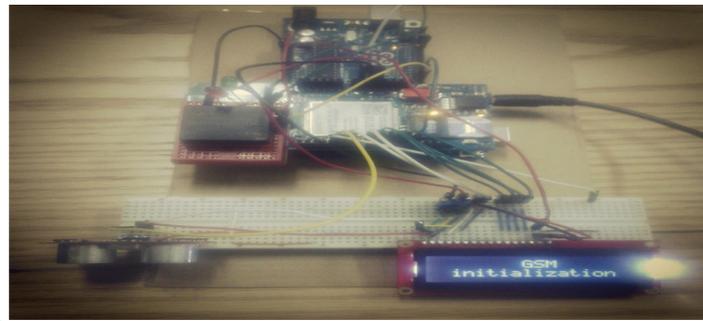


Intruders Detection System AND BLIND PEOPLE PASSAGE CLEARANCE AID

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Abstract

In this project we are implementing our own version of an intruder detection alarm system based on the concept of ultrasonic transducers and using the help of micro controllers. Our system will contain an RFID to help activate and deactivate the structure. The ultrasonic transducers will work as a sensor to detect any object trying to enter the premises. The microcontroller (in our case is Arduino Uno) will serve as the brain of the operation controlling every step, activate and deactivate the alarm. Moreover, a GSM shield will be in contact with the microcontroller to send an SMS message to the person in charge warning him in case of intrusion. Finally we used the same concept to implement a blind people aid system to detect any objects in the users path and notify him by an alarm. Below is the implemented circuit for the intruder system

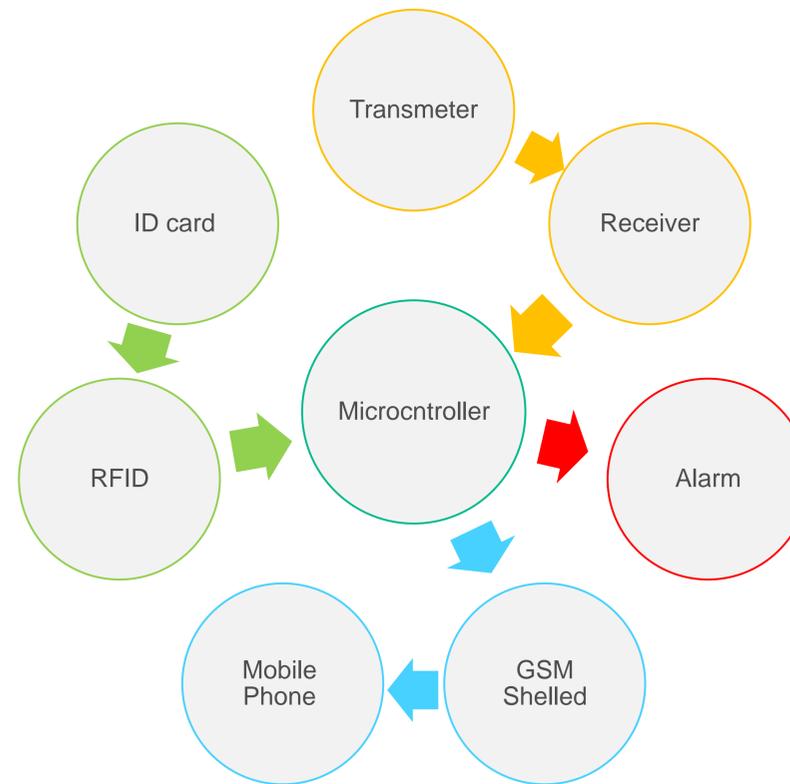


Objectives

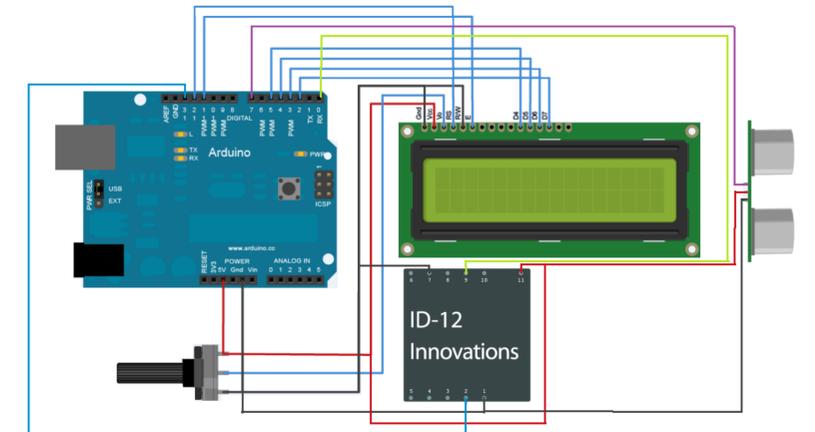
- To build and test an alarm system based on the theory of ultrasonic transducers.
- To provide an effective and affordable method of intruder detection.
- To implement a system that is interactive and easy to operate.
- To re-arrange the design to be used as blind people aid for road clearance

Methodology

The full scope of the project is explained in the block diagram below.

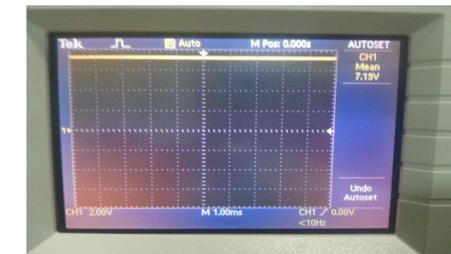


Design of RFID, GSM and Alarm



Results

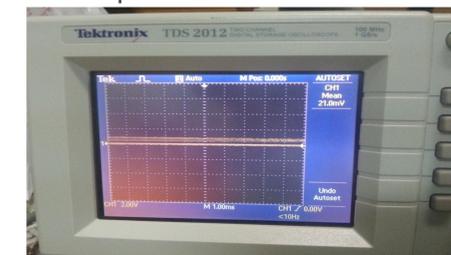
The output if there is no intruder: SMS will be send to owner mobile:



SMS will be send to owner mobile:

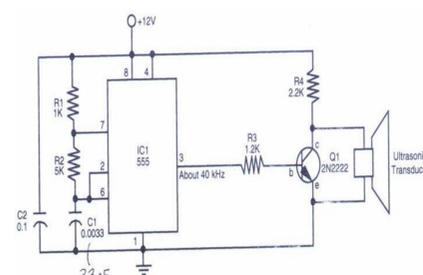


If somebody pass this will be the output as shown:

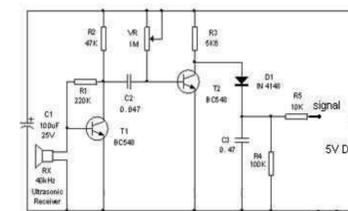


Design of Transmitter and Receiver

Transmitter:



Transmitter:



Conclusions and Future Work

In conclusion, we were successfully able to implement our intruder detection alarm system that is able to detect unauthorized users. An SMS warning message will be sent via the GSM shield to the users phone describing the situation. In the future, there are some modifications that can upgrades the design and functionality, For example, the use of motion detectors, heat sensors and photographic cameras.

our design could be modified to be used as a blind people aid system and path clearance. The system shown in the adjacent figure will alert the sightless user of any obstacles in his path by sitting an alarm after detecting the objects and surroundings.

