Report on

‘Arduino Cell Phone’

By

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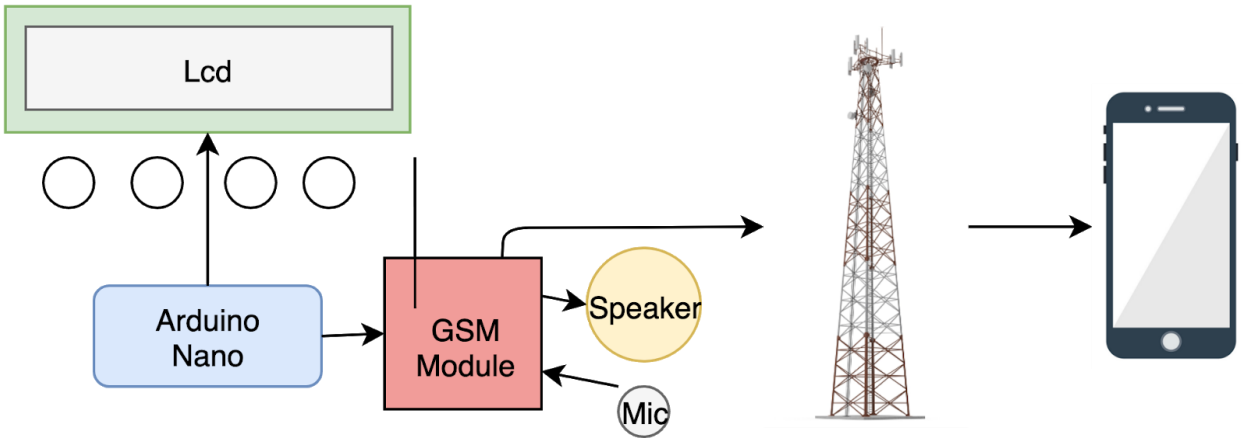
Objective:

To construct a cell phone device that can be used to communicate with others using a GSM module.

Description:

This is a cell phone device that can be used to communicate with others. It has a speaker and a mic so that we can hear what the other person is saying and what our reply to that message is. The buttons can be to call a person(like a speed dial option), receive a call and reject a call. In this way, I have implemented this project for calling two people using two separate buttons in this project.

Block Diagram:



System Requirement Specification

Hardware Requirement:

- LCD Screen
- Arduino Nano
- Button Switch x 4
- GSM module
- Speaker and Mic

- Jumper cables

Software Requirement:

- Arduino IDE
    - Library: 1. DS3231.h
    - 2. LiquidCrystal.h

Working Principle:

There are four buttons in this device and each one has a specific function to do. The first and second button is used, when we wish to call any of the two pre-stored mobile numbers. The third button is used to receive an incoming call. The fourth Button is used to reject an ongoing or incoming call. If we wish to call the first person, we press the first button. When that button is pressed, the Arduino sends AT commands to the GSM module with the pre-stored mobile number and the GSM module does the work of calling that particular number. We will be able to communicate with the other person using the speaker and mic attached to the GSM module. If we want to hang the ongoing call we can press the fourth button.

Circuit Connections:

- Connection of Arduino to LCD:
    - 12 - RS
    - 11 - EN
    - 5 - d4
    - 4 - d5
    - 3 - d6
    - 2 - d7
- Connection of Arduino to Button
    - 8 - set
    - 7 - hour
    - 6 - min
    - 1 - save & exit
- Connection of Arduino to GSM module

    - 9 - Tx
    - 10 - Rx
    - 5v - Vcc
    - Gnd - Gnd
- Connection of Speaker and Mic
    - Connect Speaker and Mic to GSM module

Result:

The result of the project Arduino Cell Phone is verified and it satisfied all my requirements without any exceptions.