

The **ACEduino GSM/GPRS Shield** is based on SIM900 module from SIMCOM and is compatible with Arduino and its clones. The Shield provides you a way to communicate using the GSM cell phone network. The shield allows you to achieve SMS, MMS, GPRS and Audio via UART by sending AT commands. Here's a short summary of the rest of the features of the Shield:

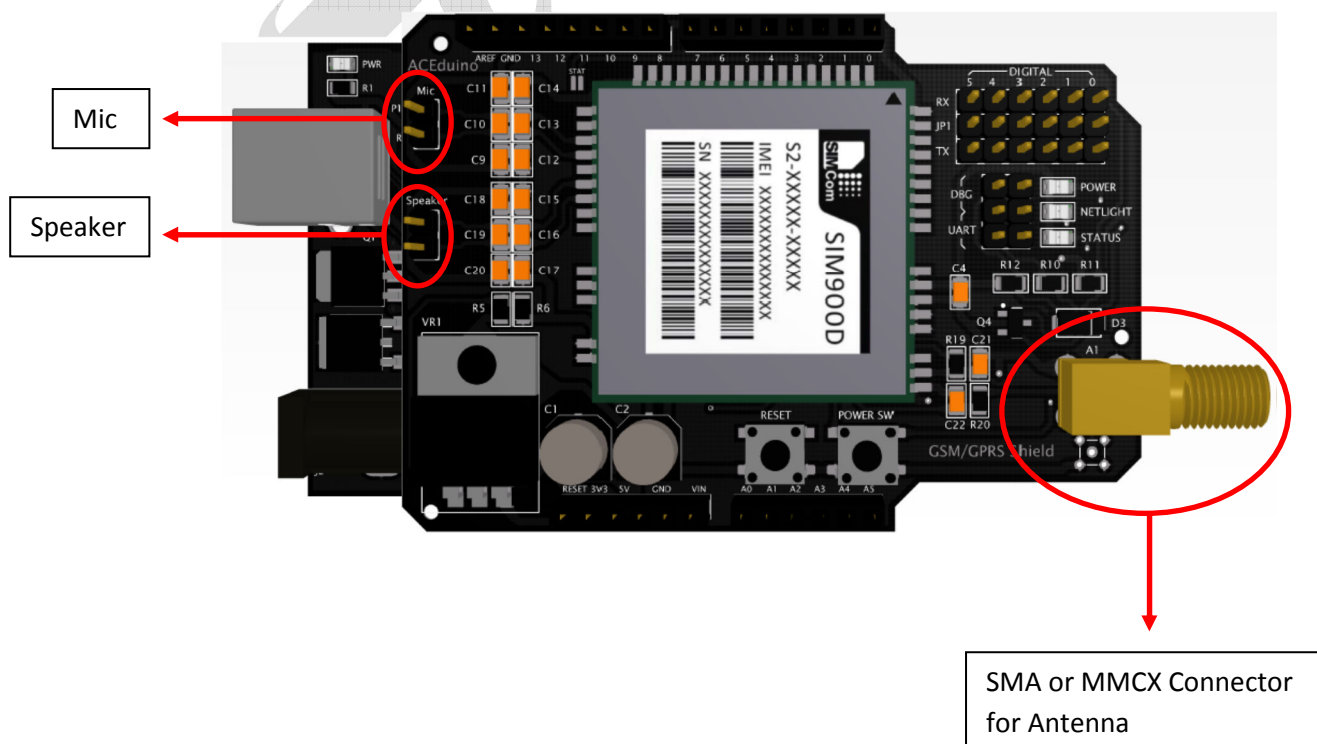
- Quad-Band 850 / 900/ 1800 / 1900 MHz- would work on GSM networks in all countries across the world.
- GPRS multi-slot class 10/8
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
- Class 4 (2 W @ 850 / 900 MHz)
- Class 1 (1 W @ 1800 / 1900MHz)
- Control via AT commands- Standard Commands: GSM 07.07 & 07.05 | Enhanced Commands: SIMCOM AT Commands.
- Speaker and Headphone ports used for phone calls
- Low power consumption- 1.5mA(sleep mode)
- UART pins are selectable through Digital Input/Output 0-6.

- **SIM900D**

The SIM900D is a complete Quad-Band GSM/GPRS solution in a SMT module. The SIM900D delivers GSM/GPRS 850/900/1800/1900 MHz performance for voice, SMS, Data and Fax with low power consumption. Most of the design that was used in the GSM/GPRS Shield v1.2 can be found in the released SIMCOM reference design for optimal use of the module.

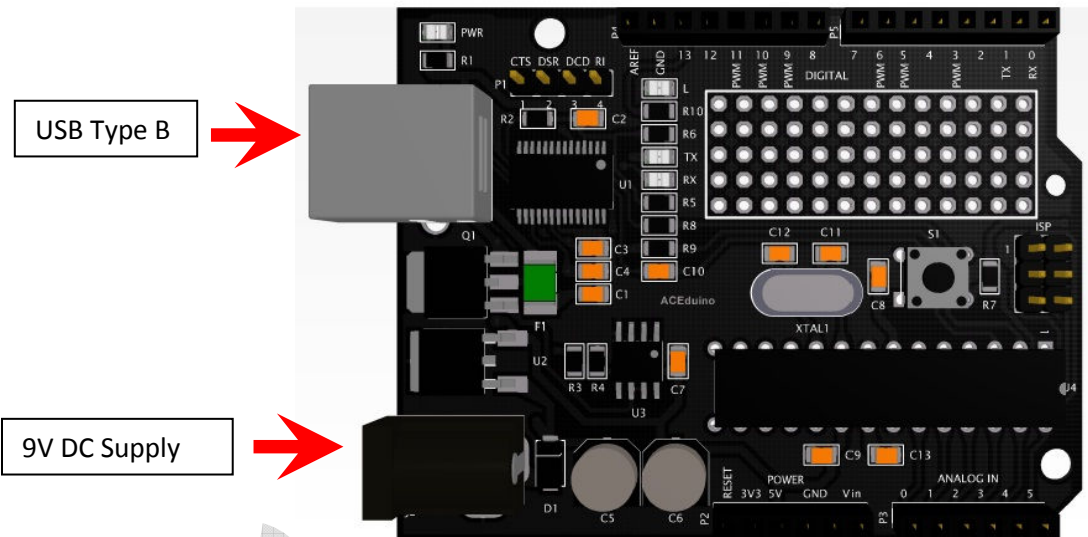
## VIII. ENCLOSURE & FINISHED PRODUCT:

Use the same procedure for mounting as the Training Shield. GSM/GPRS Shield v1.2 should fit perfectly with both the ACEduino 328 and ACEduino MEGA 2560 boards. See illustration for mounted GSM/GPRS Shield v1.2 on top of ACEduino 328. SMA or MMCX Antenna would be fitted at the socket at the lower right hand corner of the PCB. Mic and Speaker Interfaces are located at the left hand corner of the PCB.

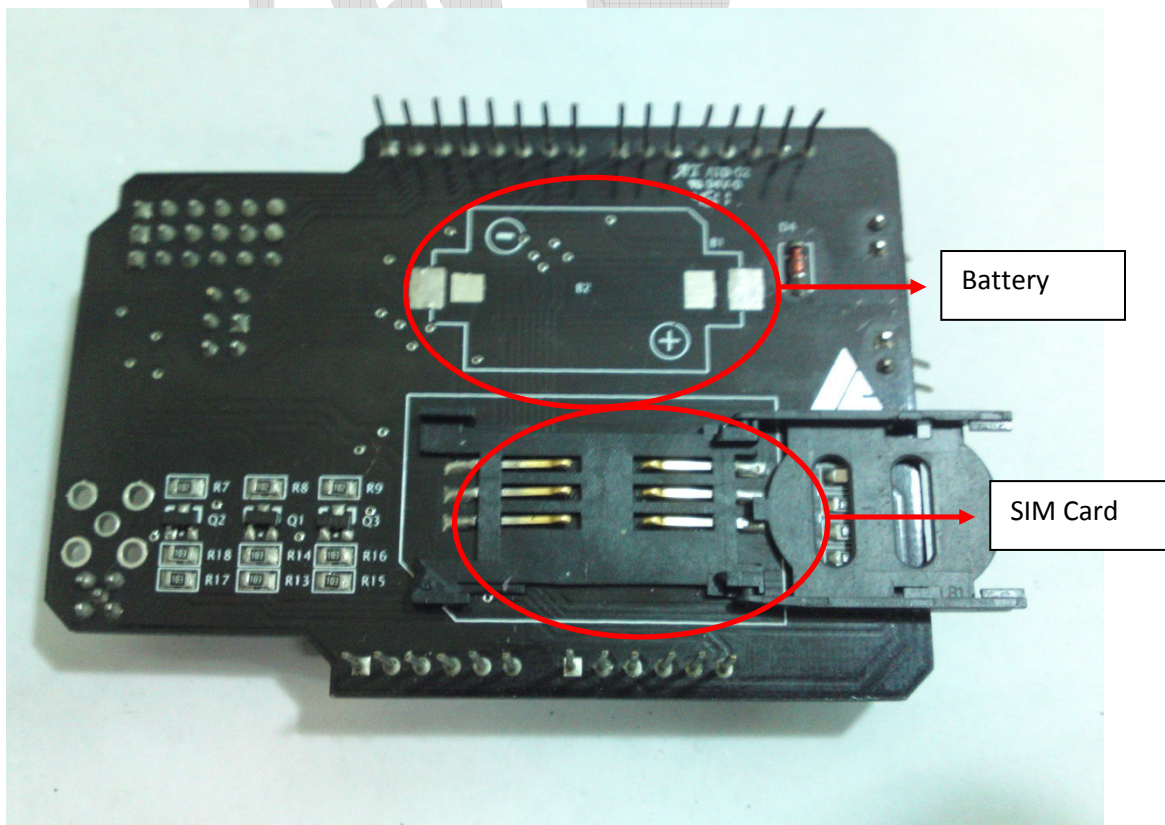


## IX. OPERATING PROCEDURES:

1. *Open the Arduino IDE.*
2. *Connect the ACEduino 328 or ACEduino MEGA 2560 using the USB Connector.*
3. *Plug in to 9V DC supply.*



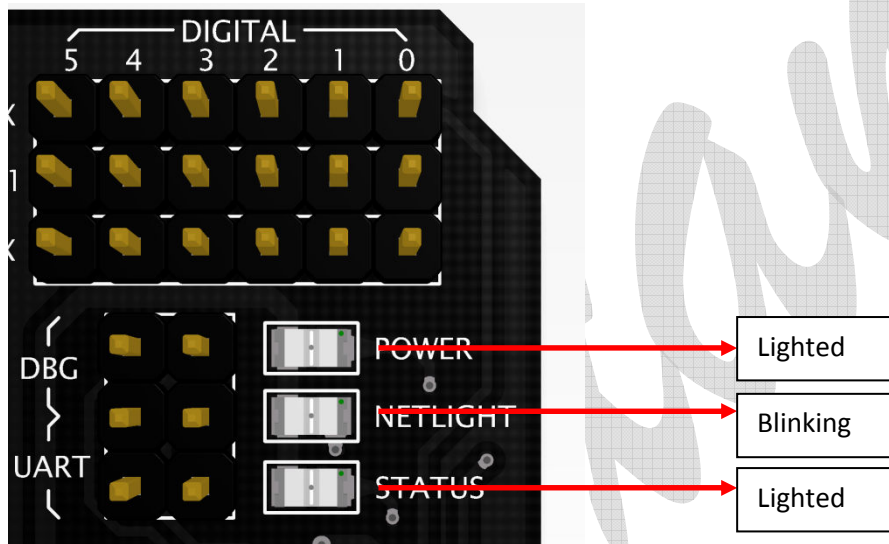
4. *Insert SIM CARD and CR2032 battery to the GSM/GPRS Shield v1.2 – located at the back side of the board.*



5. Mount the GSM/GPRS Shield v1.2 to the ACEduino board.

**\*LED labelled PWR should turn on.**

6. Press and hold the POWER SW button for 1 second.
7. LED labelled STATUS should turn on while LED labelled NETLIGHT should be blinking. See illustrations below for reference.



8. Select the right *board* and *serial port* on the Arduino IDE.
9. Open the sketch

**\*File > Examples > GSM\_GPRS > GSM\_GPRSLibrary\_Call**

10. Upload the sketch by pressing CTRL+U or pressing the upload button on the IDE.
11. A message at the bottom of the Arduino IDE will appear prompting that the file has been uploaded to the board.