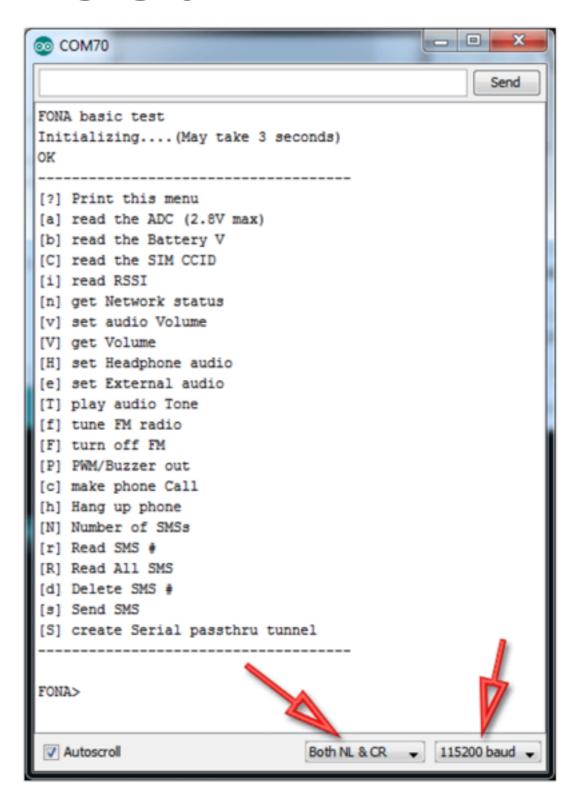# Arduino Bootcamp : Learning Through Projects

Open Source Phone - Operation - Part 2

Project Objectives

- In this project you will learn:

  - How to perform phone tests

  - How to make calls and send text messages

  - Ideas for enhancing the project

Arduino Test

- Download the Adafruit_FONA library and copy to your sketchbook location libraries folder. Restart the IDE

- Open File->Examples->Adafruit_FONA->FONAtest

  - Ensure that the 3.7/4.2V LiPoly or LiIon battery is plugged into the JST connector and the antenna is attached

  - Plug in headset into audio jack

  - Check to ensure that "Both NL & CR" is selected for the serial sender option and the baud is 115200

Perform Tests

- Battery test

  - b, then enter

- Check SIM CCID - Verifies that SIM is inserted correctly and reads unique identifier on it

  - C, then enter

- Check RSSI (network signal strength)

  - i, then enter

- Check network registration - see if you are connected to a cell tower

  - n, then enter

- Set audio to headset

  - H, then enter

Phone Operation

- Make a phone call

  - c, then enter

  - type in phone number with 1 and area code, no dashes

  - h, then enter to hangup

- Send text message

  - s, then enter

  - type in message

- Reviewing/Delete SMS messages

  - N, then enter, will show how many SMS messages the SIM has

  - R, then enter will read them all

  - r, then enter and a number will read SMS in a particular slot

  - d, then enter and a number will delete an SMS in a slot

FM Operation (FONA 800 only)

- Tune to a frequency

  - f, then enter

  - provide a frequency e.g. 1015 for (101.5) then enter

  - Listen to the radio!!!

Extras to enhance project

- Can include an external speaker and microphone for enhanced communication

- Can include vibrating disc for when calls come in

- Can include graphical TFT display with menu driven interface

Summary

- In this project you learnt:

  - About testing out your phone

  - How to make calls and send text messages from your open source phone

  - Ideas to enhance the project

    https://learn.adafruit.com/adafruit-fona-mini-gsm-gprs-cellular-phone-module/overview