

## Configuring UART on the Raspberry Pi

-Ashish Joglekar

SSH into your Pi  
Ensure you are connected to the internet

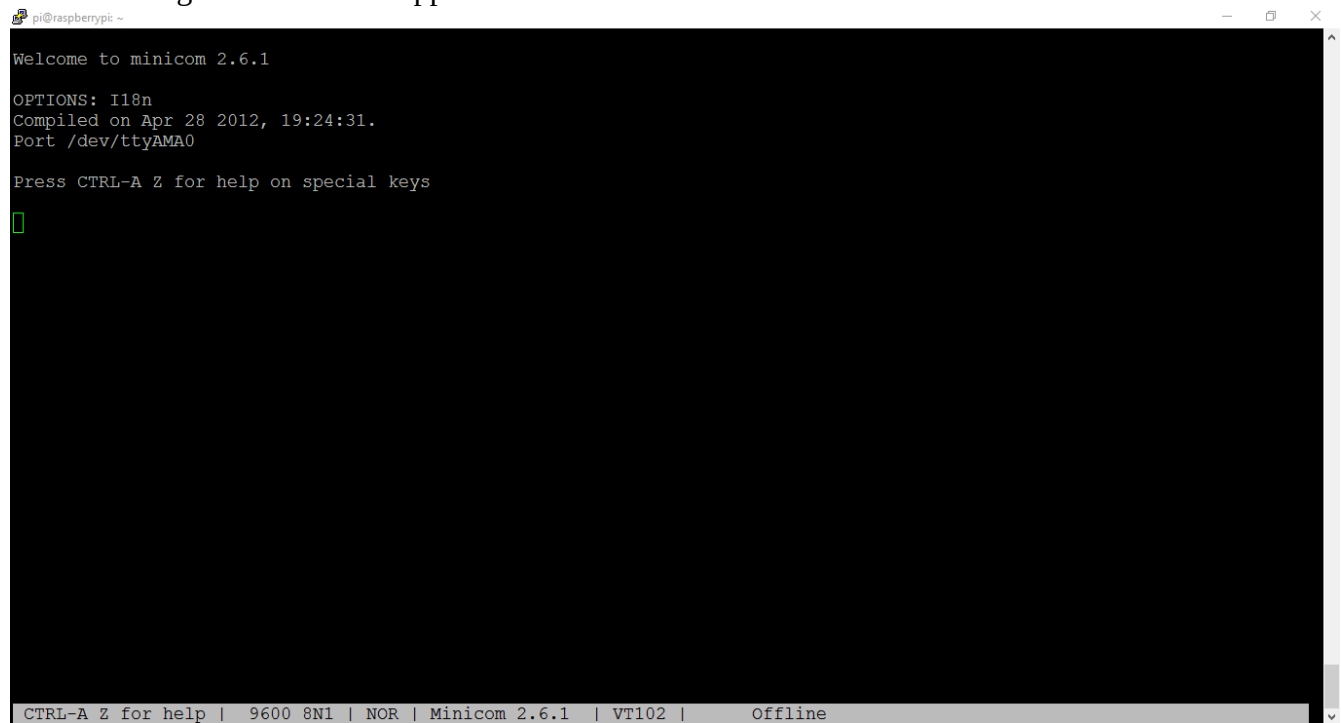
Type commands:  
`sudo apt-get install minicom`

`sudo chmod a+rw /dev/ttyAMA0`

`minicom -b 9600 -o -D /dev/ttyAMA0`

(Change Baud rate to your setting on the Atmega32)

The following window would appear:



```
pi@raspberrypi ~  
Welcome to minicom 2.6.1  
  
OPTIONS: I18n  
Compiled on Apr 28 2012, 19:24:31.  
Port /dev/ttyAMA0  
  
Press CTRL-A Z for help on special keys  
█  
  
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 2.6.1 | VT102 | Offline
```

Press CTRL-A and then Z to get:

```
pi@raspberrypi: ~  
Welcome to minicom 2.6.1  
OPTIONS: I18n  
Compiled on Apr 28 2012, 1  
Port /dev/ttyAMA0  
Press CTRL-A Z for help on  
+-----+  
| Minicom Command Summary |  
+-----+  
| Commands can be called by CTRL-A <key> |  
+-----+  
| Main Functions | Other Functions |  
+-----+  
| Dialing directory..D | run script (Go)....G | Clear Screen.....C |  
| Send files.....S | Receive files.....R | cOnfigure Minicom..O |  
| comm Parameters...P | Add linefeed.....A | Suspend minicom...J |  
| Capture on/off....L | Hangup.....H | eXit and reset....X |  
| send break.....F | initialize Modem...M | Quit with no reset.Q |  
| Terminal settings..T | run Kermit.....K | Cursor key mode....I |  
| lineWrap on/off...W | local Echo on/off..E | Help screen.....Z |  
| Paste file.....Y | Timestamp toggle...N | scroll Back.....B |  
+-----+  
| Select function or press Enter for none. |  
+-----+  
| Written by Miguel van Smoorenburg 1991-1995 |  
| Some additions by Jukka Lahtinen 1997-2000 |  
| i18n by Arnaldo Carvalho de Melo 1998 |  
+-----+  
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 2.6.1 | VT102 | Offline
```

Press O to get:

```
pi@raspberrypi: ~  
Welcome to minicom 2.6.1  
OPTIONS: I18n  
Compiled on Apr 28 2012, 19:24:31.  
Port /dev/ttyAMA0  
Press CTRL-A Z for help on special keys  
+-----[configuration]-----+  
| Filenames and paths |  
| File transfer protocols |  
| Serial port setup |  
| Modem and dialing |  
| Screen and keyboard |  
| Save setup as dfl |  
| Save setup as.. |  
| Exit |  
+-----+  
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 2.6.1 | VT102 | Offline
```

Set download directory to:

```
pi@raspberrypi: ~  
Welcome to minicom 2.6.1  
  
OPTIONS: I18n  
Comp+-----+  
Port| A - Download directory : /home/pi/ |  
| B - Upload directory : |  
Pres| C - Script directory : |  
| D - Script program : runscript |  
| E - Kermit program : |  
| F - Logging options |  
| |  
| Change which setting? |  
+-----+  
| Screen and keyboard |  
| Save setup as dfl |  
| Save setup as.. |  
| Exit |  
+-----+  
  
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 2.6.1 | VT102 | Offline
```

Select L to choose file where data is saved:

```
pi@raspberrypi: ~  
Welcome to minicom 2.6.1 +-----+  
OPTIONS: I18n | Minicom Command Summary |  
Compiled on Apr 28 2012, 1 | Commands can be called by CTRL-A <key> |  
Port /dev/ttyAMA0 | |  
Press CTRL-A Z for help on | |  
+-----+  
| Main Functions | Other Functions | |
| Dialing directory..D | run script (Go)....G | Clear Screen.....C |  
| Send files.....S | Receive files.....R | cOnfigure Minicom..O |  
| comm Parameters....P | Add linefeed.....A | Suspend minicom....J |  
| Capture on/off....L | Hangup.....H | eXit and reset....X |  
| send break.....F | initialize Modem...M | Quit with no reset..Q |  
| Terminal settings..T | run Kermit.....K | Cursor key mode....I |  
| lineWrap on/off....W | local Echo on/off..E | Help screen.....Z |  
| Paste file.....Y | Timestamp toggle...N | scroll Back.....B |  
| |  
| Select function or press Enter for none. |  
| |  
| Written by Miquel van Smoorenburg 1991-1995 |  
| Some additions by Jukka Lahtinen 1997-2000 |  
| i18n by Arnaldo Carvalho de Melo 1998 |  
+-----+  
  
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 2.6.1 | VT102 | Offline
```

Serial data sent by Atmega32 over UART will now be available at /home/pi/minicom.cap

Another script can pick up the data from this file to process it and push it further to the cloud.