

## Lab 2, Hardware

By ADMIN | *Published:* NOVEMBER 16, 2012

We need to have possibility of booting kernel on Raspbery Pi. Because we will not have display driver soon, we need another approach – have serial port connected to get all output from booter and then from our kernel. We bought small FTDI 3.3V chip to have connected it to GPIO pins on one side and to USB port of my Mac on another side. Also need to install FTDIUSBSerialDriver\_v2\_2\_18 for Mac.

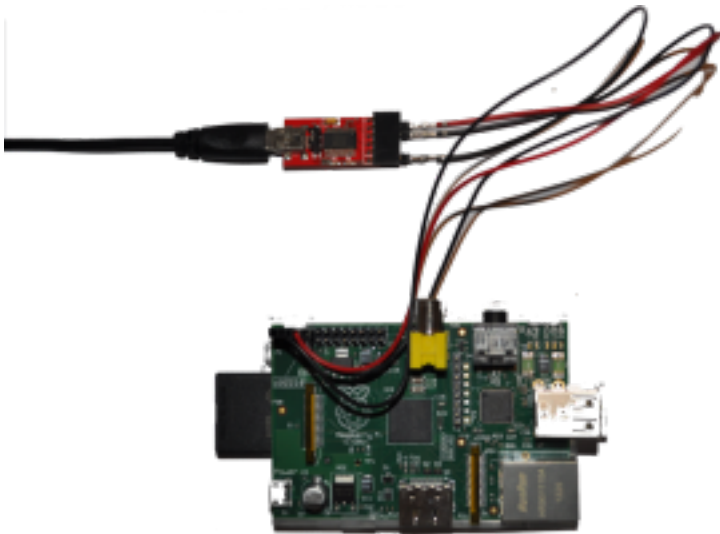
1. Rasperry Pi itself:



2. Any SD card with some RPi distro to boot:



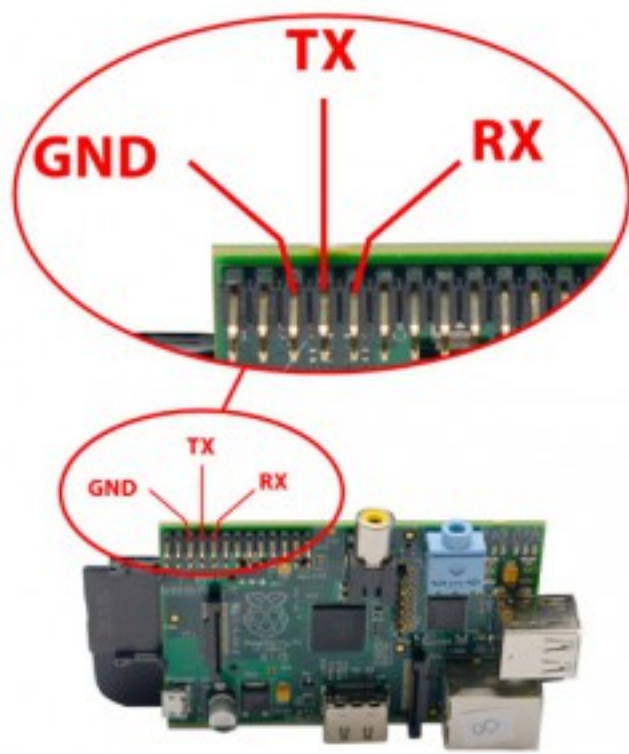
3. FTDI board to have serial port:



4. Way of connecting FTDI to GPIO pins:

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When connecting FTDI board remember that RX from FTDI should be connected to TX on Raspberry Pi, and TX on FTDI to RX on RPi, plus you need one wire for Ground.

5. When everything is connected you can see the boot process of linux by using screen command (you should specify speed 115200):

```
1 | # screen /dev/tty.usbserial-A501JR90 115200
```

Attachments:

FTDI device driver for Mac: [FTDIUSBSerialDriver v2\\_2\\_18](#)

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