Creating a Pi_grammer Image from NOOBs
PL 3/16/2018

This guide will show how to take a fresh NOOBs card, and make some slight tweaks to get it setup as a Pi_grammer..

1. Copy a few files to “\home\pi” directory: test.py, pi_program.sh, avrdude_gpio.conf, your_firmware.hex.

Note, it’s a good idea to open up permissions on all of these files to avoid access errors in debug. To do this navigate to \home\pi, then type use the command “sudo chmod 777 test.py pi_program.sh your_firmware.hex”

Also note, the avrdude_gpio.conf file is pretty similar to the standard CONF file, although it has two additional programmers setup at the bottom of the file. This is added to the end:

```
# Linux GPIO configuration for avrdude.
# Change the lines below to the GPIO pins connected to the AVR.
programmer
  id    = "pi_1";
  desc  = "Use the Linux sysfs interface to bitbang GPIO lines";
  type  = "linuxgpio";
  reset = 19;
  sck   = 24;
  mosi  = 23;
  miso  = 18;
;

programmer
  id    = "linuxspi";
  desc  = "Use the Linux SPI device in /dev/spidev*";
  type  = "linuxspi";
  reset = 26;
;
```

2. Enable SPI hardware tutorial here:

https://learn.sparkfun.com/tutorials/raspberry-pi-spi-and-i2c-tutorial#spi-on-pi

3. Replace the standard RC.LOCAL file with the one from the repo. It is located here: “\etc”

4. Install avrdude. A single command will do this: “sudo apt-get install avrdude” but you can read more about it here adafruits gpio tutorial

Note, there is no need to create the modified config file for gpio if you intend to use linuxspi.