Let me start off by saying that this process will take some time. I started completely from scratch so I could get a feeling for how long it would take. Including all of the downloading, it took XXX hours to complete building the environment from scratch. If you have been following my development and you are thinking of taking the plunge, clearly you are excited about aquaponics and using open source software so please don’t get discouraged. I was giddy when I setup the system and could start monitoring its progress from my phone. I know you’ll enjoy the fruits of you labor, much like the fruits of the system. <Blah, blah, probably want to change this>

Keep in mind this is the Raspberry Pi and is not the fast processor on the planet.

7:45-9:30 1.75hrs

Great reference instructions in case I missed a step or if something doesn’t work as listed:

http://www.penguintutor.com/linux/raspberrypi-webserver

**Download and install Raspbian**

Follow instructions on <rpi website>

On first boot, enable ssh

run sudo raspi-config

execute update

optional execute enable boot\_behaviour

optional execute expand\_rootfs (depending on SD card size, this can take a long time)

Finish and reboot

While waiting for "Online re-size"

use your router to get IP address of device

putty ip of your device

Optional If you really want to latest run: sudo apt-get upgrade

**Install the LAMP Server**

< Consider putting a script on the website that will do all of the installation procedures >

sudo apt-get install mysql-server

<You will be prompted for a password for the root user. Put in a password and remember it. From this point on I'll use MYSQL\_PASSWD from this point to refer to this password .>

NOTE: You may run into problems during the installation of mysql if you SD card is too small. I'd recommend at least a 8GB SD card. <http://databaseblog.myname.nl/2013/01/how-to-install-mysql-succesfully-on.html>

NOTE: Go get a drink. This can take a while. <Or open another putty session ☺ >

Install the Apache server

sudo apt-get install apache2

sudo apt-get install php5 php5-mysql php5-curl

sudo apt-get install phpmyadmin

< Follow the on screen instructions for passwords, you will need MYSQL\_PASSWD >

**Install Development and Miscellaneous Applications**

sudo apt-get install curl ntp

< My already be installed, but just make sure >

Sudo apt-get install vim

< Get your friendly file editor. I use vim, but there is nano, emacs, etc >

sudo apt-get install git

sudo apt-get install locate

<optional installations but useful>

**Install OAServer and OANode**

Download the source code from GitHub

cd ~

mkdir code

cd code

git clone https://github.com/OpenAquaponics/OAServer.git

sudo cp –R OAServer/html/\* /var/www/

cd OAServer/html/scripts

./install

< Follow the onscreen instructions. You will need your MYSQL\_PASSWD during this procedure. This can take some time for the database transfers >

cd ~/code

git clone <https://github.com/OpenAquaponics/OANode.git>

<Show the optional ./update script >

-----------------------------------------

yum install vim man-pages git glibc glibc-devel gcc gcc-c++ boost boost-devel sqlite sqlite-devel

yum install php php-common

php-pecl-apc

php-cli

php-pear

php-pdo

php-mysql php-pgsql php-pecl-mongo php-pecl-memcache php-pecl-memcached php-gd php-mbstring php-mcrypt php-xml phpmyadmin

Fedora LAMP server:

http://www.unixmen.com/201205-howto-install-lamp-in-fedora/