

Follow [RPints](#) Guide Steps 1 & 2, if you are using an RPi 3 include the following:

```
sudo nano /boot/config.txt
```

```
dtoverlay=pi3-miniuart-bt
enable_uart=1
force_turbo=1
```

It is also necessary to edit `/lib/systemd/system/hciuart.service` and replace `ttyAMA0` with `ttyS0`.

If `cmdline.txt` uses the alias `serial0` to refer to the user-accessable port then the firmware will replace with the appropriate port whether or not this overlay is used.

Step 3 now done in the UI except for assigning a Static IP:

```
sudo nano /etc/dhcpd.conf
```

```
# Example static IP configuration:
```

```
interface wlan0
static ip_address=192.168.1.175/24
static routers=192.168.1.1
static domain_name_servers=8.8.8.8 8.8.4.4
```

Install php5:

```
sudo nano /etc/apt/sources.list
```

Change 'stretch' to 'jessie'

```
sudo nano /etc/apt/sources.list.d/raspi.list
```

Change 'stretch' to 'jessie'

```
sudo apt-get update
sudo apt-get -y install php5 php5-cli php5-mysql
```

Install php7 and MariaDB:

```
sudo nano /etc/apt/sources.list
```

Change 'jessie' to 'stretch'

```
sudo nano /etc/apt/sources.list.d/raspi.list
```

Change 'jessie' to 'stretch'

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get -y install apache2 php php-cli php-mysql mariadb-client mariadb-server
```

Add password for MariaDB root user:

```
sudo mysql -u root
update mysql.user set plugin = " where user='root' and host='localhost';
set password = password('enter_your_password_here');
flush privileges;
quit
```

```
sudo mysql -u root
sudo mysql -u root -p
```

Install latest phpmyadmin:

At the time of writing the latest version was 4.7.4, but if a newer version is available at <https://www.phpmyadmin.net/> update the version numbers accordingly:

```
wget https://files.phpmyadmin.net/phpMyAdmin/4.7.4/phpMyAdmin-4.7.4-all-languages.zip
unzip phpMyAdmin-4.7.4-all-languages.zip
sudo mv phpMyAdmin-4.7.4-all-languages /usr/share/phpmyadmin
sudo cp /usr/share/phpmyadmin/config.sample.inc.php /usr/share/phpmyadmin/config.inc.php
sudo nano /usr/share/phpmyadmin/config.inc.php
```

Edit:

```
$cfg['blowfish_secret'] = ""; /* YOU MUST FILL IN THIS FOR COOKIE AUTH! */
```

using the following URL:

<https://www.question-defense.com/tools/phpmyadmin-blowfish-secret-generator> (click the refresh button a few times to be safe), so you have something like this:

```
$cfg['blowfish_secret'] = '{^QP+-(3mlHy+Gd~FE3mN{glATs^1IX+T=KVYv{ubK*U0V'; /* YOU MUST FILL IN THIS FOR COOKIE AUTH! */
```

```
sudo chmod -R 0755 /usr/share/phpmyadmin
rm phpMyAdmin-4.7.4-all-languages.zip
```

Install remaining packages for RPints:

```
sudo apt-get -y install arduino python-serial python-mysqldb xdotool  
sudo apt-get -y install ttf-mscorefonts-installer x11-xserver-utils unclutter
```

Configure Chromium autostart settings:

```
sudo nano /home/pi/.config/lxsession/LXDE-pi/autostart
```

```
@xset s off  
@xset -dpms  
@xset s noblank  
@chromium-browser --incognito --start-fullscreen localhost
```

```
sudo reboot
```

Setup Alamode:

```
sudo apt-get update  
sudo apt-get install dos2unix
```

```
wget https://github.com/wyolum/alamode/archive/master.zip  
unzip master.zip  
cd alamode-master/alamode-setup  
sudo dos2unix stretch-setup  
sudo ./stretch-setup  
rm -R ~/alamode-master  
rm ~/master.zip
```

```
sudo nano /boot/cmdline.txt  
console=serial1
```

```
sudo reboot
```

If Installing New RPints:

```
wget https://github.com/RaspberryPints/RaspberryPints/archive/2.0.1.zip  
unzip 2.0.1.zip  
sudo mv RaspberryPints-2.0.1/* /var/www/  
sudo chmod -R 777 /var/www/  
rm -R RaspberryPints-2.0.1  
rm 2.0.1.zip
```

If Restoring Existing RPints:

```
unzip www.zip
sudo mv www/* /var/www/
sudo chmod -R 777 /var/www
rm -R www
rm www.zip
```

```
sudo cp my.cnf.bak /etc/mysql/my.cnf
mysql -u root -p < backupdatabase.sql
```

Update Apache config for RPints and phpMyAdmin:

```
sudo nano /etc/apache2/sites-available/000-default.conf
```

Change "DocumentRoot /var/www/html" to:

```
DocumentRoot /var/www
Alias /phpmyadmin "/usr/share/phpmyadmin/"
```

```
<Directory "/usr/share/phpmyadmin/">
    Order allow,deny
    Allow from all
    Require all granted
</Directory>
```

```
sudo service apache2 restart
```

```
sudo reboot
```

Configure RPints settings in welcome page

```
sudo shutdown -h now
```

Continue on from Step 9 of RPints instructions

```
cd /var/www/python
sudo cp flowmon /etc/init.d
sudo chmod a+x /etc/init.d/flowmon
sudo /etc/init.d/flowmon start
ps aux | grep flow_monitor.py
sudo update-rc.d flowmon defaults
```

```
sudo reboot
```