

Device Specifics:

1. PI IP Address: 192.168.2.135
2. PI system & mysql root user's password: mtotdmtotd

FROM PC WITH AN SD CARD READER/WRITER

- Download and unzip [NOOBS v1_4_1.zip](#) and extract it to SD card
- ```
rm -rf /media/1253-6711/*
cp NOOBS_v1_4_1.zip /media/1253-6711
cd /media/1253-6711/
unzip NOOBS_v1_4_1.zip
rm NOOBS_v1_4_1.zip
```
- Insert SD card and boot up Raspberry Pi
  - Install Raspbian. During Install change language and keyboard layout.
- After installation completes choose Expand Filesystem, Change User Password (mtotdmtotd), Advanced Options SSH, SPI, I2C, Update then exit the menu and reboot the pi (sudo reboot)
- Connect to the Pi using SSH then download and install WebIOPi.
- ```
wget http://sourceforge.net/projects/webiopi/files/
WebIOPi-0.7.1.tar.gz
tar -zxvf WebIOPi-0.7.1.tar.gz
cd WebIOPi-0.7.1
---- fix for pi2 ----
webiopi on raspberry pi2
1.python/native/cpuinfo.c,change "BCM2708" to "BCM2709";
2.python/native/gpio.c, change "#define BCM2708_PERI_BASE
0x20000000" to "#define BCM2708_PERI_BASE 0x3f000000";
-- or (better fix maybe?) --
https://github.com/acrobotic/Ai_Demos_RPi/tree/master/demos/
gpio#webiopi
-- --
---- ----
./setup.sh
...
WebIOPi successfully installed
* To start WebIOPi foreground : sudo webiopi [-h] [-c config] [-l
log] [-s script] [-d] [port]

* To start WebIOPi background : sudo /etc/init.d/webiopi start
* To start WebIOPi at boot : sudo update-rc.d webiopi defaults

* Weaved IoT Kit installed, log on http://developer.weaved.com to
access your device
```

- * Look in `/home/pi/WebIOPi-0.7.1/examples` for Python library usage examples
- Connect to the web server and make sure it is working ok. Connect something to a GPIO to test.
 - Delete `/web/webiopi/passwd` (insecure)
 - Copy `mtotd_script.py` to appropriate directory and define in `/etc/webiopi/config`
 - Set webiopi to start on server startup then start manually
 - `update-rc.d webiopi defaults`
 - `service webiopi start`
 - Browse to `http://<pi ip address>:8000/`
 - Default user is "webiopi" and password is "raspberrypi" when `passwd` file hasn't been deleted
 - Test from command line using curl.
- `curl -X POST http://192.168.2.135:8000/GPIO/22/function/OUT`
`curl -X POST http://192.168.2.135:8000/GPIO/22/value/0 --0 for on`
 and 1 for off
- Install Web Stuff
- `apt-get install mysql-server phpmyadmin apache2 python-mysqldb`
`pip-3.2`
`pip-3.2 install cronex`
`pip-3.2 install cymysql`
- Download Web files
- `cd /var/www/; git clone https://github.com/jamiekowalczyk/MTOTD-Home-Automation.git`
- Prepare database
- `mysql -u root --password=mtotdmtotd -e "create database ci_sample"`
`mysql ci_sample -u root --password=mtotdmtotd </var/www/MTOTD-Home-Automation/web/sql/ci_sample.sql`
- Update Apache (`/etc/apache2/sites-enabled/000-default`)
- `<VirtualHost *:80>`
`ServerAdmin webmaster@localhost`
`DocumentRoot /var/www/MTOTD-Home-Automation/web`
`<Directory />`
`Options FollowSymLinks`
`AllowOverride None`
`</Directory>`

`<Directory /var/www/MTOTD-Home-Automation/web>`

```

        Options Indexes FollowSymLinks MultiViews
        AllowOverride All
        Order allow,deny
        allow from all
    </Directory>

    ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/
    <Directory "/usr/lib/cgi-bin">
        AllowOverride None
        Options +ExecCGI -MultiViews +SymLinksIfOwnerMatch
        Order allow,deny
        Allow from all
    </Directory>

    ErrorLog ${APACHE_LOG_DIR}/error.log
    # Possible values include: debug, info, notice, warn, error,
crit,
    # alert, emerg.
    LogLevel warn
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>

```

- **a2enmod rewrite; service apache2 restart**
- **Update CodeIgniter Configuration (/var/www/MTOTD-Home-Automation/web/application/config/config.php)**
- `$config['base_url'] = 'http://192.168.2.135/';`
- **Login to web administration panel**
 - Username/password: admin/password