**DQMusicBox: How to prepare the micro-SD card image**

7 April 2018

# Introduction

This document describes how to create a DQMusicBox system image – a .img file. I (Ross) am probably the only person that needs this document. Mostly people making a DQMusicBox will use the fruit (the .img file) of the process described here -- you don’t need to create your own custom .img file unless you really want to.

# No warranty

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# Prepare the Raspberry Pi

Remove any USB devices.

# Prepare the disk image

This is a record of how I created the disk image. You only need to read this information if you wish to do your own Raspian configuration.

## Install DietPi on 4GB micro-SD card

Install DietPi (light version of Rasbian) i.e. follow these instructions: <http://dietpi.com/phpbb/viewtopic.php?f=8&t=9#p9>. I installed v140. I used [etcher](https://etcher.io/) (free) to write the disk image to the micro-SD card.

## Boot & configure DietPi

Move the micro-SD card to the Pi, boot DietPi. After a build process, you will be prompted to make some choices. When prompted, choose to install the following:

|  |
| --- |
| DietPi-Software : Software Optimized : Hardware Projects : RPi.GPIO  DietPi-Software : Software Additional : System : ALSA  DietPi-Software : Software Additional : Development : Git Client  DietPi-Software : Install |

Your Pi will then reboot

## More DietPi configuration

Move the micro-SD card to the Pi, boot DietPi. After a build process, you will be prompted to make some choices. When prompted, choose to install the following:

|  |
| --- |
| % dietpi-config  << Audio Options : Soundcard : rpi-bcm2835-3.5mm Onboard: 3.5mm forced output >> |

Your Pi will then reboot

## Install VLC (music player)

|  |
| --- |
| sudo apt-get install vlc-nox |

## adduser pi

|  |
| --- |
| sudo adduser pi |

## Install/clone dqmusicbox, enable

|  |
| --- |
| cd /home/pi  git clone <https://github.com/rosswesleyporter/dqmusicbox/>  sudo chmod 755 dqmusicbox/bin/dqmusicbox.py |

## Install Python bindings for VLC

|  |
| --- |
| cd /home/pi  sudo git clone https://github.com/oaubert/python-vlc  cp python-vlc/generated/2.2/vlc.py dqmusicbox/bin  chmod 755 dqmusicbox/bin/vlc.py |

## Add shell script to automatically start the musicbox

|  |
| --- |
| cd /home/pi  sudo cp dqmusicbox/bin/dqmusicbox.sh /etc/init.d  sudo chmod 755 /etc/init.d/dqmusicbox.sh  sudo update-rc.d dqmusicbox.sh defaults |

For more information, see Stephen Christopher Phillips’ [terrific page](http://blog.scphillips.com/posts/2013/07/getting-a-python-script-to-run-in-the-background-as-a-service-on-boot/).

## Install usbmount

|  |
| --- |
| sudo apt-get install usbmount |

## Fix usbmount

Follow [Christian Weinberger’s instructions](https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=774149#177).

## Shutdown, unplug

|  |
| --- |
| sudo shutdown -h now |

Then unplug the Pi

## Insert USB drive

Once Pi is off, insert USB drive. Then plug the Pi back in.

## Test

Make sure the music plays…

## Shutdown

Provided that the reboot went well, shutdown:

|  |
| --- |
| sudo shutdown –h now |

Then remove the micro-SD card.

## Use Etcher to create the master image

Remove the micro-SD card from your Pi and place in the card reader of your computer. Use Win32DiskImager to create an image of DQMusicBox that you just nicely configured.