

DQMusicBox: How to prepare the micro-SD card image

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1 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.

2 No warranty

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3 Prepare the Raspberry Pi

Remove any USB devices.

4 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.

4.1 Install DietPi on 4GB micro-SD card

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

4.2 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

4.3 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

4.4 Install VLC (music player)

```
sudo apt-get install vlc-nox
```

4.5 adduser pi

```
sudo adduser pi
```

4.6 Install/clone dqmusicbox, enable

```
cd /home/pi  
git clone https://github.com/rosswesleyporter/dqmusicbox/  
sudo chmod 755 dqmusicbox/bin/dqmusicbox.py
```

4.7 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
```

4.8 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](#).

4.9 Install usbmount

```
sudo apt-get install usbmount
```

4.10 Fix usbmount

Follow [Christian Weinberger's instructions](#).

4.11 Shutdown, unplug

```
sudo shutdown -h now
```

Then unplug the Pi

4.12 Insert USB drive

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

4.13 Test

Make sure the music plays...

4.14 Shutdown

Provided that the reboot went well, shutdown:

```
sudo shutdown -h now
```

Then remove the micro-SD card.

4.15 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.