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

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# 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 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 Raspbian on 8GB micro-SD card

Install DietPi i.e. follow these instructions: <http://dietpi.com/phpbb/viewtopic.php?f=8&t=9#p9>. I installed v130. I used the [Win32 Disk Imager](http://sourceforge.net/projects/win32diskimager/) (free) to write the disk image to the micro-SD card, and that worked well.

## Boot Raspbian

Move the micro-SD card to the Pi, boot DietPi. When prompted, choose to install the following:

|  |
| --- |
| DietPi-Software : Software Optimized : RPi.GPIO  DietPi-Software : Software Additional: ALSA  DietPi-Software : Software Additional: Git Client |

The download & installation process took 15 minutes for me on a Pi 3.

## Set the USB audio device as the default

Make sure the USB audio device is recognized:

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| --- |
| aplay -l  #should see a USB audio device as card 1 |

Make the USB audio device the default audio device:

|  |
| --- |
| cat << \_EOF\_ > /etc/asound.conf pcm.!default {    type hw    card 1 }  ctl.!default {    type hw    card 1 } \_EOF\_ |

Reboot

|  |
| --- |
| sudo reboot |

Test the audio

|  |
| --- |
| speaker-test -r 44100 -c 2  #press ctrl+c to cancel |

## Install VLC (music player)

This might take 45 minutes…

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

## Install usbmount

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

## adduser pi

|  |
| --- |
| adduser pi |

## Install/clone dqmusicbox, enable

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

## Install Python bindings for VLC

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

## Add shell script to automatically start the musicbox

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| --- |
| 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/).

## Reboot

|  |
| --- |
| sudo reboot |

## Shutdown

Provided that the reboot went well, shutdown so we can remove the micro-SD card.

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| --- |
| sudo shutdown –h now |

## Use Win32DiskImager 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 Raspbian/DQMusicBox that you just nicely configured.