Music Player

https://chrismolloy.com/p201.php

Mopidy: https://mopidy.com/

Hardware

Pimoroni Pirate Audio Headphone AMP:
https://shop.pimoroni.com/products/pirate-audio-headphone-amp Line Out:
https://shop.pimoroni.com/products/pirate-audio-line-out Speaker:
https://shop.pimoroni.com/products/pirate-audio-mini-speaker

Pimoroni Pirate Audio Case: https://www.thingiverse.com/thing:4087948

Alternative case ideas: https://www.yeggi.com/q/pimoroni+pirate+audio/

System installation

Download Raspberry OS lite (Buster) https://www.raspberrypi.org/downloads/raspberry-pi-os Then
flash using Balena Etcher or similar https://www.balena.io/etcher/

Note: /etc/init.d/resize2fs_once is triggered on first boot, then removes itself.

WIFI config: create wpa_supplicant.conf in /boot

/boot/wpa_supplicant.conf

```
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
country=<Insert 2 letter ISO 3166-1 country code here>

network={
 ssid="<Name of your wireless LAN>"
 psk="<Password for your wireless LAN>"
}
```

Enable SSH Server: create empty file ssh in boot folder

/boot/config.txt

/boot/config.txt

```
#Set GPU memory to lowest value
gpu_mem=16
```

```
#Disable boot splash screen
disable_splash=1

#Configure Pimoroni Pirate audio DAC
dtoverlay=hifiberry-dac
gpio=25=op,dh

#Enable SPI for display of Pimoroni Pirate Audio
dtparam=spi=on

#Switch off onboard audio
dtparam=audio=off

# Turn off HDMI?
#hdmi_blanking=0 # HDMI Output will be blank when DPMS is triggered
#hdmi_blanking=1 # HDMI Output will be disabled when DPMS is triggered
hdmi_blanking=2 # HDMI Output will be disabled on boot and can be
enabled using the above listed commands.

[pi0]
# Disable the ACT LED on the Pi Zero only
dtparam=act_led_trigger=none
dtparam=act_led_activelow=on
```

Disable HDMI port on boot (power saving during headless operation) /usr/bin/tvservice -o (-p to re-enable) Add the line to /etc/rc.local to disable HDMI on boot.

Now insert the SD-Card into the Pi and power it up. Then connect to it via SSH.

Security. Default user pi with password raspberry
https://www.raspberrypi.org/documentation/configuration/security.md

Mopidy Installation

Install git if not already installed:

```
sudo apt-get install git
```

https://learn.pimoroni.com/tutorial/sandyj/getting-started-with-pirate-audio

#This will install python3 pip,wheel and pirate audio modules #Then add mopidy apt sources and install mopidy including mopidy-spotify #Then install mopidy-iris web interface and Pirate Audio plugins #And create system service to autostart mopidy

```
cd /usr/src
sudo git clone https://github.com/pimoroni/pirate-audio
cd pirate-audio/mopidy
sudo ./install.sh
```

Additional web interfaces can be installed: https://github.com/pimusicbox/mopidy-musicbox-webclient

```
sudo python3 -m pip install Mopidy-MusicBox-Webclient
```

https://github.com/tkem/mopidy-mobile

```
sudo python3 -m pip install Mopidy-Mobile
```

#Removing mopidy spotify plugin and bluetooth support

```
sudo apt-get purge mopidy-spotify
sudo apt-get purge bluez bluez-firmware
sudo apt autoremove
```

Install mopidy-local extension backend (local+sqlite combined) to build local index for search and increased performance. https://github.com/mopidy/mopidy-local

```
sudo python3 -m pip install Mopidy-Local
```

#Display will show ip and default mopidy port :6680 for web interface. Iris web client needs to be selected

#Edit Mopidy config sudo vi /etc/mopidy/mopidy.conf

```
#disable file extension
[file]
enabled = false

#enable local with sqlite extension
[local]
enabled = true
media_dir = /media/network
scan_timeout = 5000
scan_flush_threshold = 50
album_art_files =
  cover.*
  folder.*
directories =
  Albums                local:directory?type=album
  Artists               local:directory?type=artist
  Composers             local:directory?type=artist&role=composer
  Genres                local:directory?type=genre
  Performers            local:directory?type=artist&role=performer
  Release Years         local:directory?type=date&format=%25Y
  Tracks                local:directory?type=track
  Last Week's Updates   local:directory?max-age=604800
  Last Month's Updates  local:directory?max-age=2592000
timeout = 10
```

```
#add to http section to enable web server for web front-ends
enabled = true
#port = 80 #issue with mopidy user and ports <1024
zeroconf = Mopidy HTTP server on $hostname:$port
# Set to iris, mobile or musicbox_webclient, depending on which is installed
default_app = iris

#change in audio section
mixer_volume = 20
```

When using Iris webclient:

```
#add iris section:
[iris]
enabled = true
country = GB
locale = en_GB
```

When using MusicBox Webclient:

```
[musicbox_webclient]
enabled = true
musicbox = false #when on Pi MusicBox, adds system control/config options
websocket_host =
websocket_port =
on_track_click = PLAY_ALL
# on_track_click: The action performed when clicking on a track. Valid
options are: PLAY_ALL (default), PLAY_NOW, PLAY_NEXT, ADD_THIS_BOTTOM,
ADD_ALL_BOTTOM, and DYNAMIC (repeats last action).
```

```
sudo mkdir /media/network
sudo mkdir /media/music
```

```
sudo apt-get upgrade
```

SMB mount the manual way (/etc/rc.local or /etc/fstab): #Note experiment with rsize=61440 option and/or use nounix mount option

```
sudo mount -t cifs -o
ro,username=media,password=media,uid=1000,gid=1000,vers=1.0,cache=none
//192.168.1.6/music/beets2 "/home/mopidy/FOO/"
```

sudo vi /etc/fstab #add

```
//192.168.1.6/music /media/music/beets2    cifs
username=media,password=media,ro,vers=1.0,cache=none,iocharset=utf8,noperm,f
ile_mode=0644,dir_mode=0755,users    0    0
```

```
mount /media/network
```

```
sudo reboot
```

Trigger scan of media directories (when mopidy runs as service):

```
sudo mopidyctl local scan
```

or when running from terminal as logged in user:

```
mopidy local scan
```

Note the default configuration files mopidy is looking for are in ~/.config/mopidy/mopidy.conf or /usr/share/mopidy/conf.d whereas the default service loads /usr/share/mopidy/conf.d and /etc/mopidy/mopidy.conf The service file using the mopidy user is: /etc/systemd/system/multi-user.target.wants/mopidy.service

Edit the volume button's sensibility

Default volume button step is 5%. Adding

```
step = x
```

to the [raspberry-gpio] section of /etc/mopidy/mopidy.conf adjusts it. The total volume range is 0-100.

Other music player projects

Volumio (headless music player) https://pimylifeup.com/raspberry-pi-volumio/

Pi MusicBox (appears to be dead) https://pimylifeup.com/raspberry-pi-music-player/ https://www.pimusicbox.com/

Various Links

Mopidy Extensions: https://mopidy.com/ext/ Mopidy Config: https://docs.mopidy.com/en/latest/config/#audio-section Mopidy Iris: https://github.com/jaedb/Iris/wiki/Getting-started#installing Install guide: https://chrismolloy.com/p201.php Mopidy Beets: https://github.com/mopidy/mopidy-beets/issues/29 Mopidy Beets2: https://github.com/mopidy/mopidy-beets/issues/28 Mopidy Beets3: https://github.com/mopidy/mopidy-beets/issues Mopidy Beets ext: https://mopidy.com/ext/beets/ Github Mopidy repos: https://github.com/search?q=mopidy Mopidy-Pidi https://github.com/pimoroni/mopidy-pidi Mopidy-Pidi 2 https://github.com/pimoroni/mopidy-pidi/issues/10 Pirate Audio Mopidy https://github.com/pimoroni/pirate-audio/tree/master/mopidy Jivelite on a Pirate Audio screen: https://forums.slimdevices.com/showthread.php?111502-Jivelite-on-a-Pirate-Audio-240x240-screen/page35

Pimoroni Pirate Audio Case: https://www.thingiverse.com/thing:4087948

From:
http://wuff.dyndns.org/ - **Wulf's Various Things**

Permanent link:
http://wuff.dyndns.org/doku.php?id=raspberry-pi:music_player&rev=1604271816

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