

Setting up your Raspberry Pi for the Miniband

This will set up your Raspberry Pi to play the sounds for the miniband. You'll install PyGame for Python3, and set up the hardware so that sounds are played through the Pi's headphone jack while video goes through the HDMI lead. This allows you to plug in speakers or headphones.

Note that Raspberry Pi's can't play mp3 files out of the box: you need to buy the MP3 licence. Instead, use wav files.

Install PyGame

Install the dependencies:

```
sudo apt-get install python3-dev python3-numpy python3-rpi.gpio \  
    libsndl-dev libsndl-image1.2-dev libsndl-mixer1.2-dev \  
    libsndl-ttf2.0-dev libsmpeg-dev libportmidi-dev libavformat-dev \  
    libswscale-dev
```

Install PyGame from source:

```
sudo apt-get install mercurial  
hg clone https://bitbucket.org/pygame/pygame  
cd pygame  
python3 setup.py build  
sudo python3 setup.py install
```

Send sound to the audio jack

```
sudo apt-get install alsa-utils
```

Add this line to /etc/modules:

```
snd-bcm2835
```

Include the module either by rebooting or manually with the command

```
sudo modprobe snd-bcm2835
```

Send audio to the audio jack:

```
sudo amixer cset numid=3 1
```

Test

Finally, install and run this python script:

```
import pygame  
  
pygame.mixer.init()  
sound = pygame.mixer.Sound('path/to/sound.wav')  
sound.play()
```