EMVIA Acoustic Raspberry Pi Bring-up

Ver 1.0
9/20/2018

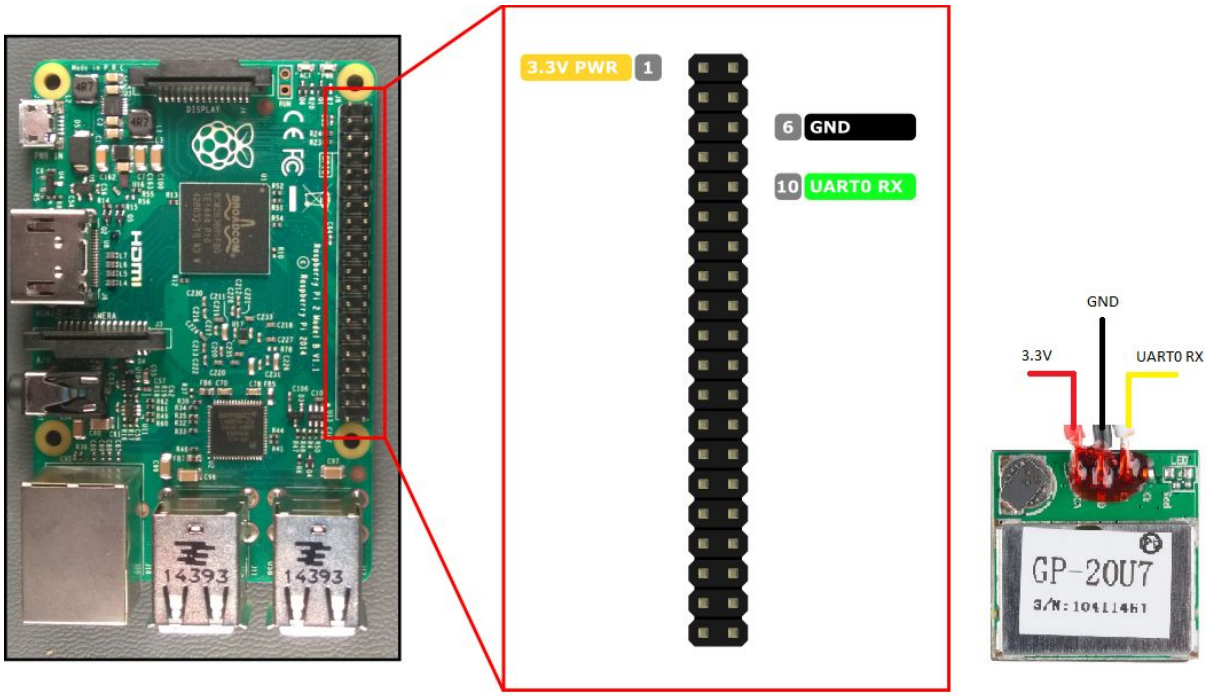
Imaging

1. Download Raspbian Stretch Desktop to PC/Laptop from https://www.raspberrypi.org/downloads/raspbian/

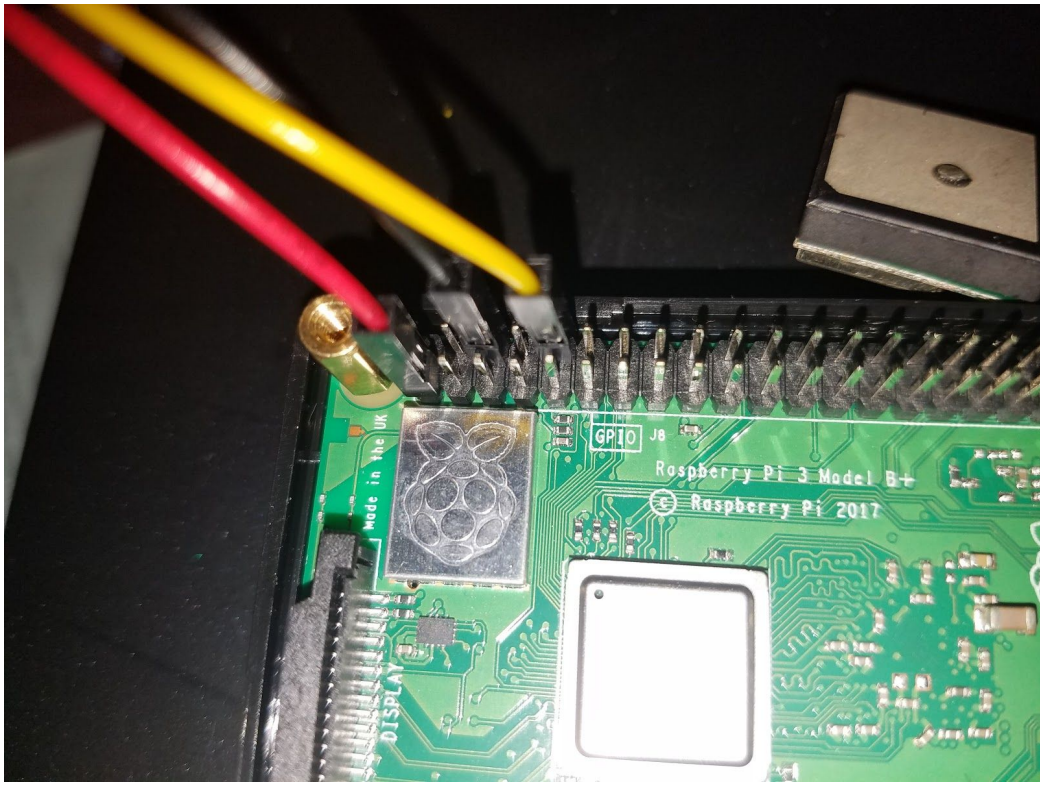
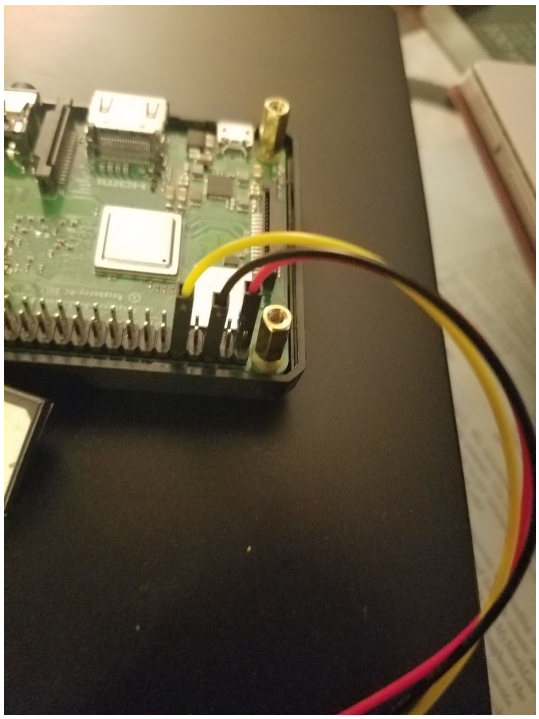
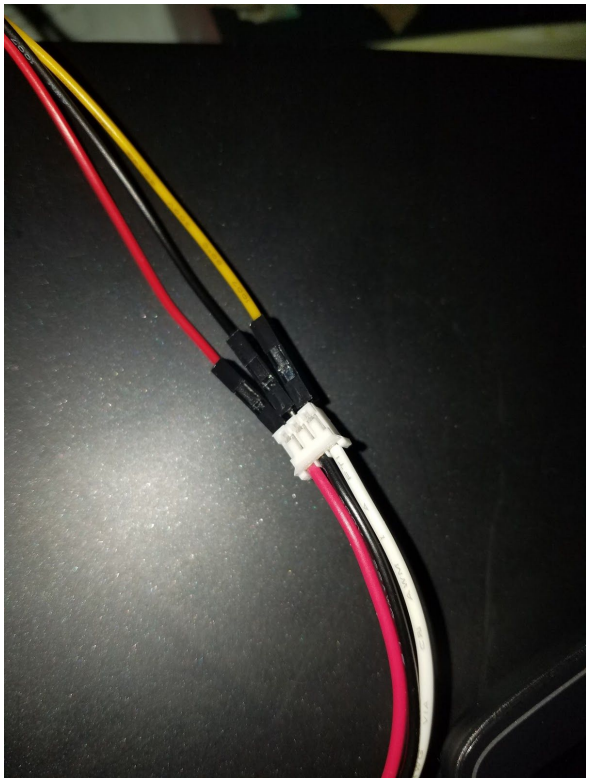
2. Insert MicroSD card into PC/Laptop and follow imaging instructions using Etcher from https://www.raspberrypi.org/documentation/installation/installing-images/README.md

3. Move MicroSD card to Pi, connect keyboard/mouse/monitor and boot
4. Follow instructions, connect wifi, and update. Use password “pi” for ease of use.
5. After reboot:
    a. Edit /boot/config.txt and add “enable_uart=1” at the end
    b. Edit /boot/cmdline.txt and remove “console=serial0,115200”
    c. systemctl enable ssh
    d. sudo apt-get install gpsd libgps-dev libasound2 libasound2-dev ffmpeg libbluetooth-dev
    e. Edit /etc/rc.local and add “chmod a+w /sys/class/leds/led1/brightness” before the last line
    f. Edit /etc/default/gpsd and add “/dev/serial0” to DEVICES
    g. cd ~/Desktop ; git clone https://github.com/solnus/emvia.git

Additional Hardware Configuration



1. Wire the GPS receiver to the rpi pins 1, 6, and 10 for 3.3V, GND, and UART0 RX.
2. Connect the microphone USB to any port.


GPIO
J8
Raspberry Pi 3 Model B+
Raspberry Pi 2017
Made in the UK
DISPLAY