

VocalFusion dev kit for Amazon AVS Getting Started

xmos.com/xvf3510avs



1



Undo plastic screws and remove large plastic spacers that hold the Pi HAT board in place. Take care not to damage the ribbon cable.

2



Fix Raspberry Pi to plastic stand using shorter plastic spacers to support the Raspberry Pi.

3



Screw longer spacers into place on top of RPi and then push Pi HAT onto RPi. Use plastic screws to fix Pi HAT board on top of the RPi.

REQUIREMENTS:

- XK-VF3510-L71-AVS Kit
- Powered speakers with 3.5 jack
- Raspberry Pi 3 with RPi power unit
- HDMI monitor, USB keyboard/mouse
- 16GB SD Card running NOOBS
- Amazon Developer Account

DOWNLOADS

- <https://github.com/xmos/vocalfusion-xvf3510-avs-setup>
- <https://github.com/alexa/avs-device-sdk/wiki/Create-Security-Profile>
- <http://www.xmos.com/xvf3510avs>

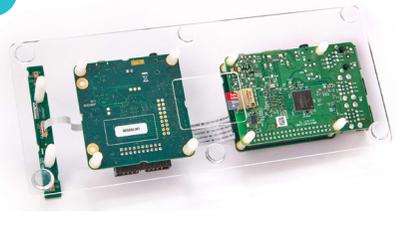
DOCUMENTATION:

- VocalFusion Dev Kit for Amazon AVS User Guide
- XVF3510-QF60-C datasheet

FURTHER READING

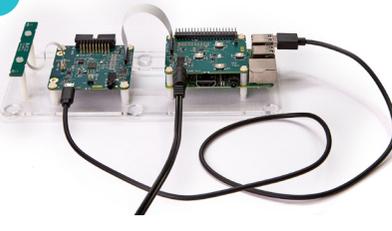
- Infineon XENSIV MEMs microphone App Notes: AN547, 556, 557, 558

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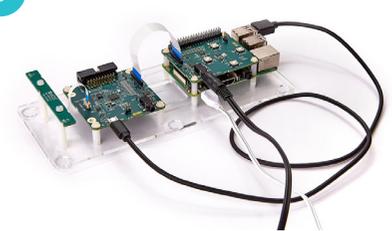
Turn kit over and slide SD card (with NOOBS installed) into Pi through the hole in kit stand.

5



Connect speaker cable to 3.5mm LINE OUT socket on Pi HAT. Connect USB socket on XVF3510 base board to USB socket on Pi to power XVF3510.

6



Connect peripherals (keyboard, mouse, monitor and Ethernet). Connect the Pi to the mains power using Raspberry Pi power unit.

7

AVS SDK INSTALLATION AND RPI AUDIO SETUP

1. Clone XVF3510 AVS Setup repo on Github: `git clone https://github.com/xmos/vocalfusion_3510_avs_setup`
2. Follow instructions in readme.md file in XMOS repository
 - Create product and client ID; set "Allowed origins" and "Allowed return URLs"
 - Run the AVS setup script `./auto_install.sh`; accept AVS Device SDK and Sensory license agreements
 - Confirm your developer credentials; reboot Raspberry Pi.
3. Test AVS client; run `avsrn` to launch AVS Device SDK client.
4. Move around the room asking AVS commands, such as "Alexa, what time is it?"
5. Tell Alexa to play some music and then barge-in; say "Alexa, ask XMOS what's new".