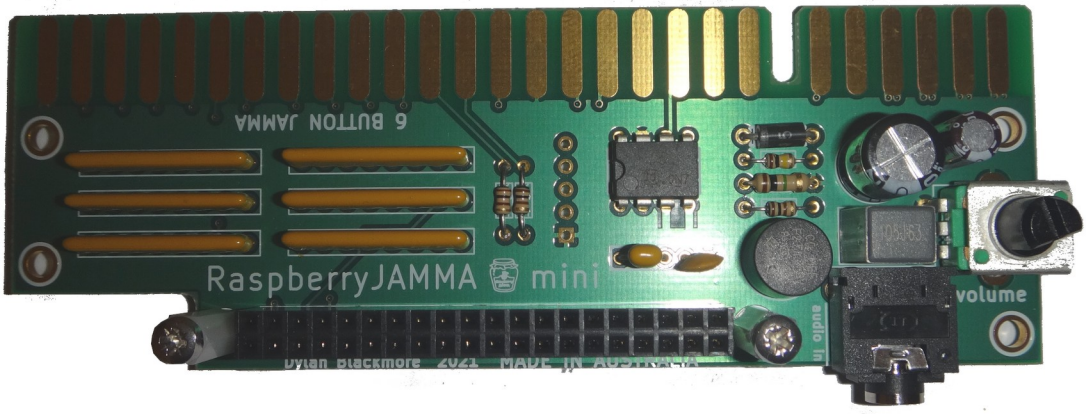
RaspberryJAMMA

Raspberry Pi JAMMA adaptor

ARPICADE



RaspberryJAMMA mini

USER GUIDE v1.0

Table of Contents

Getting started....3
Example RaspberryJAMMA configurations....4
Without DAC:....4
With DAC:....5
JAMMA PINOUT NOTES....7
Power wiring:....7
Controls wiring:....7
Speaker wiring:....7
TROUBLE SHOOTING....8
No Display:....8
No picture or audio:....8
No audio:....8

Thankyou for purchasing the RaspberryJAMMA mini.

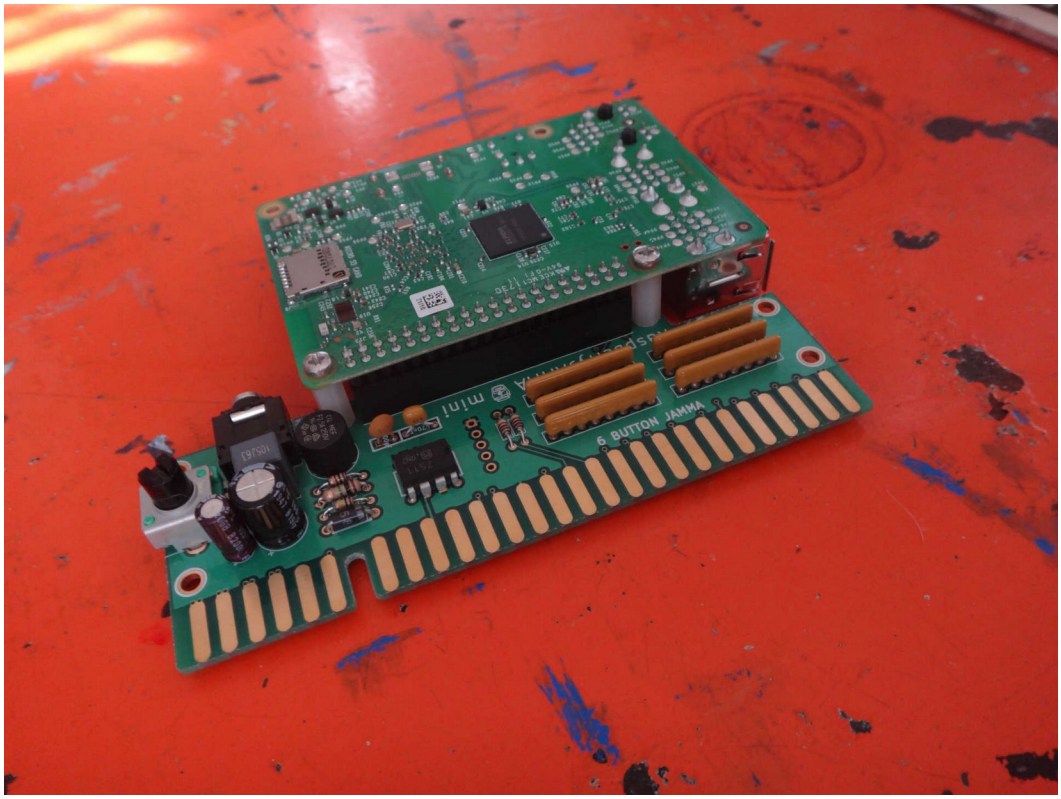
With proper care the RaspberryJAMMA mini should bring you many years of happy gaming. If anything does ever break on it, RaspberryJAMMA mini is made to be repaired not disposed of.

Getting started

To get started using it you will need a Raspberry Pi and an SD card with ARpiCADE software installed. Please ensure you use the correct software for your RPi type, currently (but subject to change) for Rpi2 and 3 variations use ARpiCADE 3.X and for Rpi4 variations use ARpiCADE 4.3.

When connecting your RPi to the RaspberryJAMMA mini please ensure all contacts on the 40 pin connector are correctly lined up. A 1mm gap between the connectors is normal when using the supplied 12mm screw posts to fasten the RPi as the posts are 1mm taller than the total height of both connectors, this will not impede operation.

When plugged into the JAMMA harness in the standard ‘parts side up’ JAMMA orientation the RaspberryJAMMA mini should be parts and silk screen text side up and the RPi will be upside down (SD card slot on top, processor on the under side), see image below.

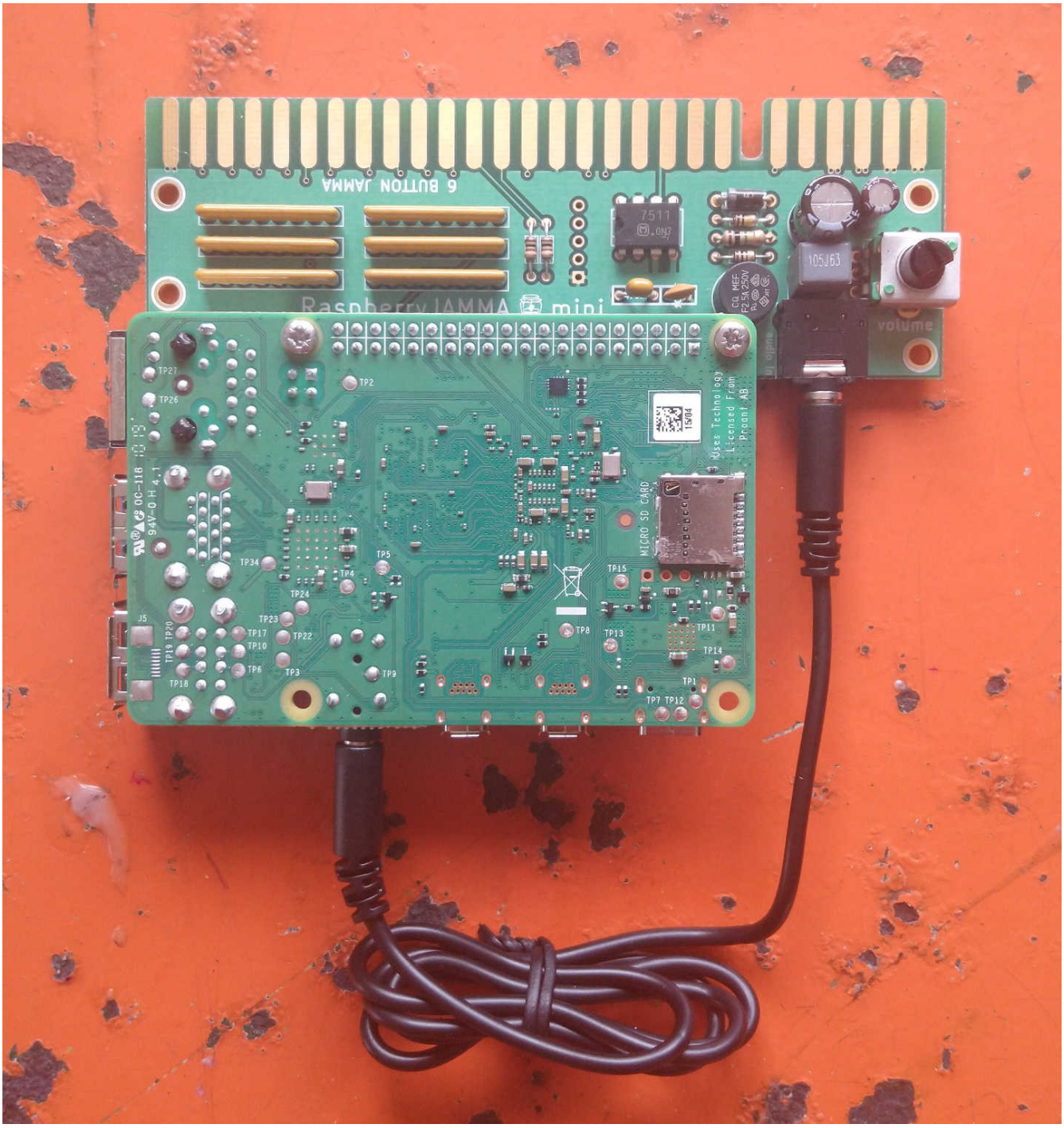


RaspberryJAMMA mini with RaspberryPi 3B+, shown ‘parts side’ up.

Please note: the default video setup of ARpiCADE software is for low res monitors. For use with RaspberryJAMMA mini (or other high res use) you must adjust /boot/config.txt to suit high res use before use, see the in file comments in config.txt.

Example RaspberryJAMMA configurations

Without DAC:



RaspberryJAMMA mini with RPi4, setup for use with HDMI or Dvi video output, 3.5mm audio links Raspberry Pi analog output to RaspberryJAMMA mini audio input

Plug your HDMI micro (to HDMI or DVi) lead into the HDMI micro connection furthest from the analog output.

For use without a DAC software adjustment is required to set audio output to the RPi analog out.

With DAC:

RaspberryJAMMA mini with RPi4, setup for use with VGA video output, 3.5mm audio links DAC audio output to RaspberryJAMMA mini audio input.

HDMI micro must be plugged into connector shown in photo.

RaspberryJAMMA mini with RPi3B+, setup for use with VGA video output, 3.5mm audio links DAC audio output to RaspberryJAMMA mini audio input.

JAMMA PINOUT NOTES

Power wiring:

The RaspberryJAMMA mini uses 5v and 12v. It will not cause any damage if your JAMMA harness has -5v connected but it is not needed by the RaspberryJAMMA mini.

For use with Raspberry Pi 3 or Raspberry Pi 4 models you will need to adjust your 5v to about 5.1v at the JAMMA edge.

Please note - Pi4 power requirements: Some newer (cheap) JAMMA harness will not have adequate 5v and power supply ground wires for use with Pi4, if your harness has only 1 wire each to the power supply for 5v and ground I strongly recommend adding more wire to each to increase the power handling. Take care working with power wiring, you are responsible for yourself, stay safe.

Controls wiring:

The RaspberryJAMMA mini uses 6 buttons on JAMMA. This is a modification of the original JAMMA standard, many newer cabinets and JAMMA harness' are wired in this 6 button on JAMMA edge style.

If your JAMMA harness has grounds located on JAMMA pins 27 and/or 'e' you will need to relocate them to pin(s) 28/'f'. Operation of other JAMMA boards will not be affected by this wiring mod.

Speaker wiring:

The RaspberryJAMMA mini has amplified mono sound as per JAMMA standard. If your cab has stereo wired to the JAMMA edge (MVS style wiring) you will need to rewire the speakers into a mono setup.

For stereo use the RaspberryJAMMAs onboard mono amp can be bypassed and an external stereo amplifyer used. No software adjustment is required to use stereo audio.

TROUBLE SHOOTING

No Display:

Can hear audio but cannot see any picture on my display:

Check /boot/config.txt display settings - make sure it is setup for high res mode following the notes in config.txt. As the ARpiCADE software is released with a low res default setup if you do not set high res in config.txt your high res monitor will probably not be able to display the low resolution default output of ARpiCADE.

No picture or audio:

Check wiring connections.

Is the Pi booting? Check the coloured LEDs on the RPi, when connected to RaspberryJAMMA mini the LEDs are facing down, located near the corner of the RPi closest to the SD card slot. If you see a red LED but no flickering green LED it is likely the Pi is not booting - if so check your ARpiCADE software has burnt to SD correctly and is the right version for your RPi.

If no LED activity at all check continuity of the RaspberryJAMMA mini fuse and power supply functions, connections and voltages.

No audio:

Can see picture but have no sound:
Check wiring connections.

Check 12v as the audio amplifier onboard the RaspberryJAMMA mini runs on JAMMA 12v.

If using DAC (VGA use) 3.5mm audio cable should be connecting DAC audio output to RaspberryJAMMA mini audio input.

If not using a DAC (HDMI or Dvi) the 3.5mm audio cable should connect RPi 3.5mm analog output to RaspberryJAMMA mini audio input. The audio must be redirected in the ARpiCADE software to the RPi analog output.