



The KM6LYW DigiPi Project

A Data Transceiver Hotspot for Raspberry Pi

John Zaruba K2ZA

What is DigiPi?



- DigiPi is an easy-to-use amateur radio data transceiver hotspot for Raspberry Pi. All radio data modes are easily accessible over wifi via your phone or web browser.
- Make FT8, JS8Call, APRS and packet modes work like any other mobile phone app.
- Hookup a DigiPi to your rig and instantly have access to radio SMS, EMail, and texting.
- Ultra-light, low-power makes it indispensable for Summit and Park operations.

DigiPi supported modes



- AX.25 Packet radio
- APRS
- FT-4, FT-8 via WSJT-X
- JS8Call
- FLDigi Suite - CW, PSK31, MFSK, THOR, Contestia, and many more.
- Winlink - Server and client, AX.25 packet (V/UHF), and ARDOP (HF)

Supported Raspberry Pi Hardware



- Zero 2 Wireless
- Pi 3 (all variants)
- Pi 4 (all variants)
- Pi 5 (all variants)
- The more compute power available the better performance.

Supported Radio Interfaces



- AIOC "All in One Cable" for Baofeng/Kenwood two-prong rigs na6d.com
- Masters Communications DRA-Pi-Zero masterscommunications.com
- DigiPi Hat elekitsorparts.com
- DigiRig Mobile (not Lite) with proper cable
- TOADS digital interface <https://temporarilyoffline.com/products/toads-digital-interface>
- And more!

This session's focus



- Pi Zero 2 wireless
- APRS TNC mode
- APRS Webchat
- Baofeng / Kenwood connector radios with the AIOC
- Not Icom or Yaesu
 - USB radios like the Icom 705 don't need an interface, can connect to the Pi directly with the correct cable.

Download the software



digipi.org

The KM6LYW Radio DigiPi Project

DigiPi 2.0 Released!



Download*
Ver 2.0-1
Trixie
October '25



Ver 1.9-4

* Password is currently available to patrons on the KM6LYW Patreon Page

Why the paywall? Anything gets you access to the DigiPi image, even a dollar.

This is a way for me to give something tangible back to supporters of the KM6LYW Radio Youtube Channel.

Please share with friends, but do not post this image online. All of the software carries an open-source license and is freely available, just not all in one place in a collective-work bootable image. Embedded Trademarks, logos, and support-links are copyright "KM6LYW Radio."

Thank you for your continued support.

- Click the download icon
- A popup will appear asking for a username and password.
- Username:
 - patreon
- Password:
 - km6lyw2021

Get the Raspberry Pi Imager

[Connect](#) [Raspberry Pi OS](#) [Raspberry Pi Pico](#) [Software sources](#)

Raspberry Pi software

From our operating system to our GitHub repos,
explore the software that powers our technology



Raspberry Pi Imager

Raspberry Pi Imager is the quick and easy way to install **Raspberry Pi OS** and other operating systems to a microSD card, ready to use with your Raspberry Pi.

Download and install Raspberry Pi Imager on a computer with an SD card reader. Insert the microSD card you'll use with your Raspberry Pi into the reader and run Raspberry Pi Imager.

[Download for macOS](#)

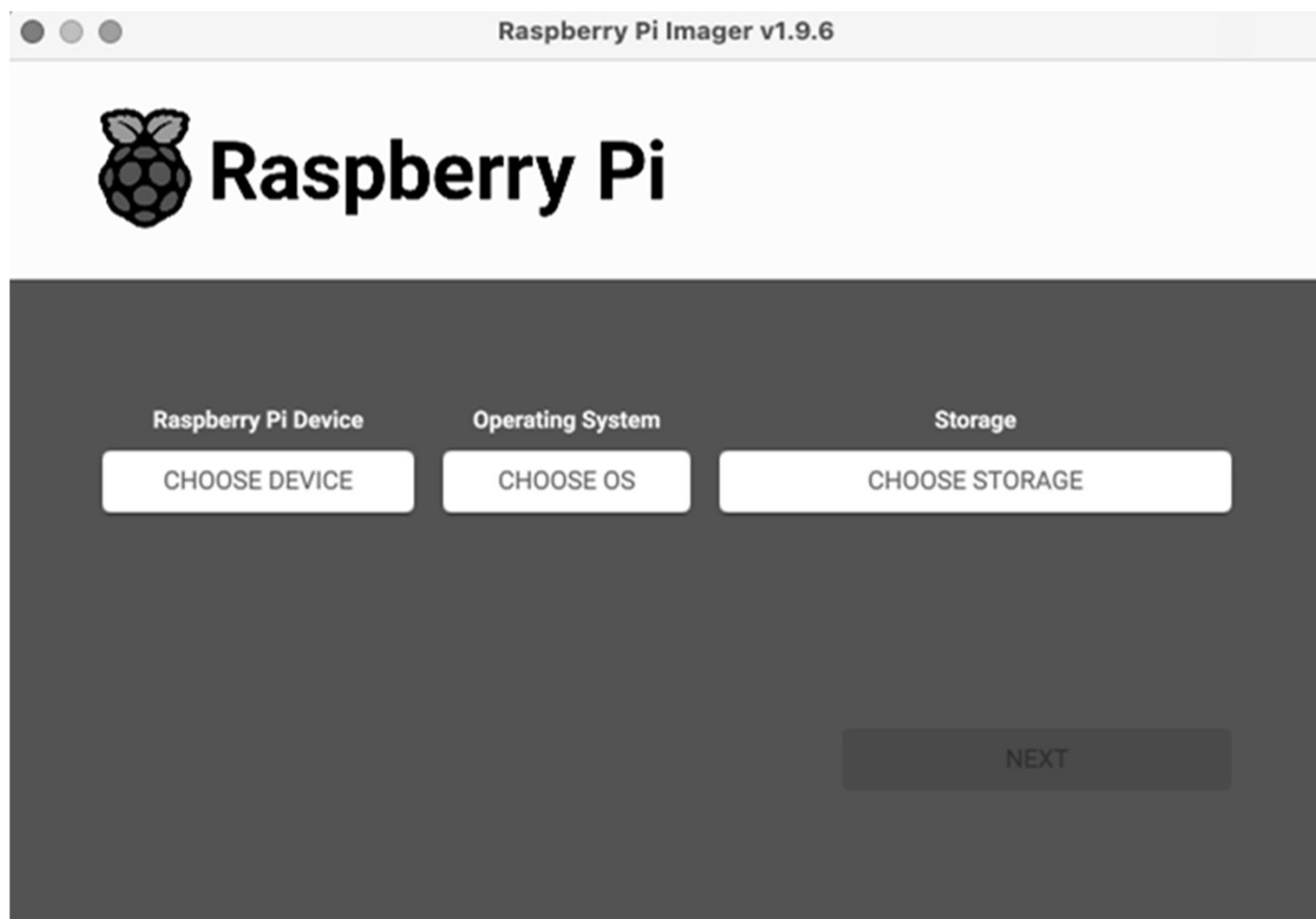
[Download for Windows](#)

[Download for Debian or Ubuntu \(x86_64\)](#)

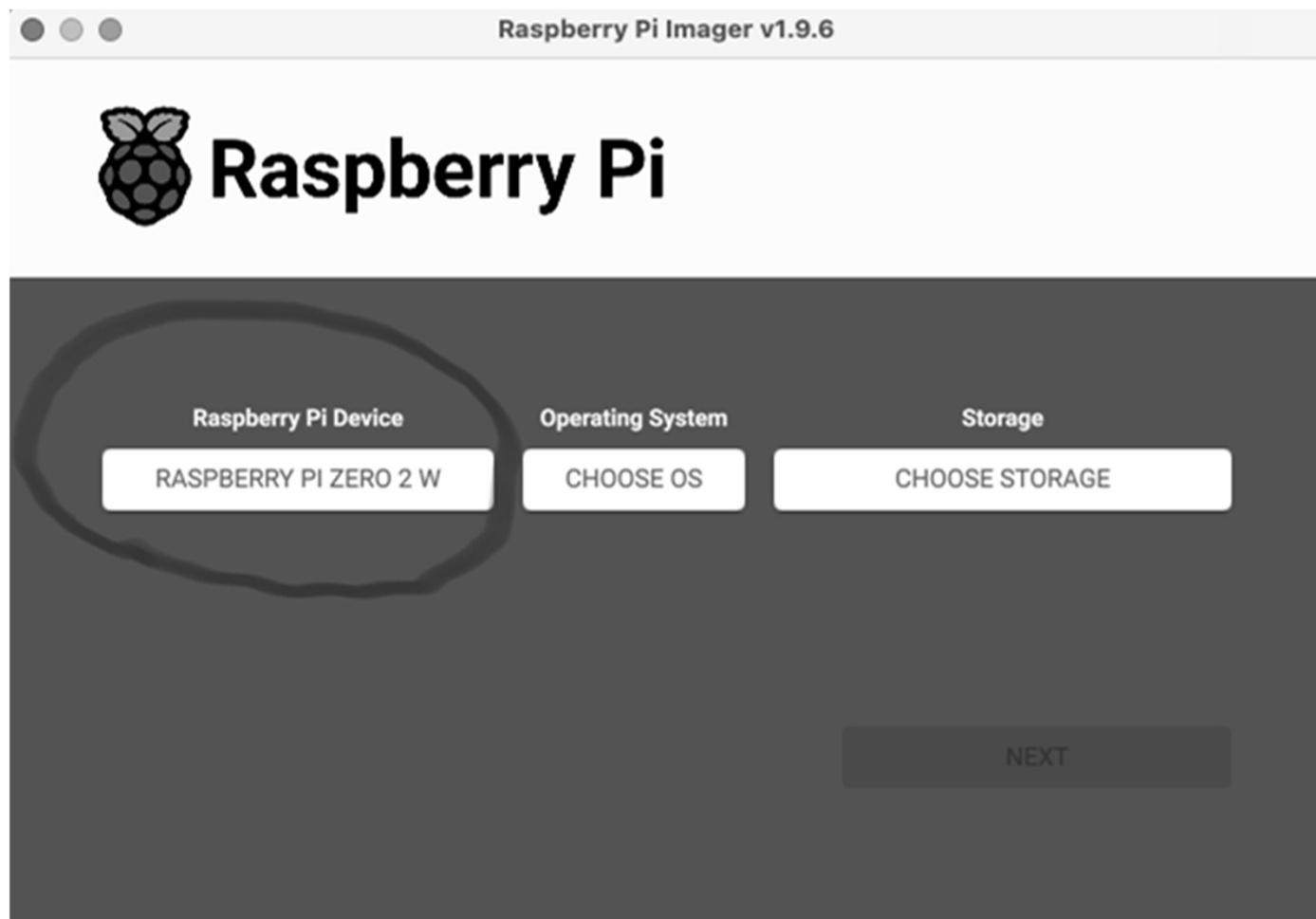
To install on **Raspberry Pi OS**, type
`sudo apt install rpi-imager`
into a terminal window



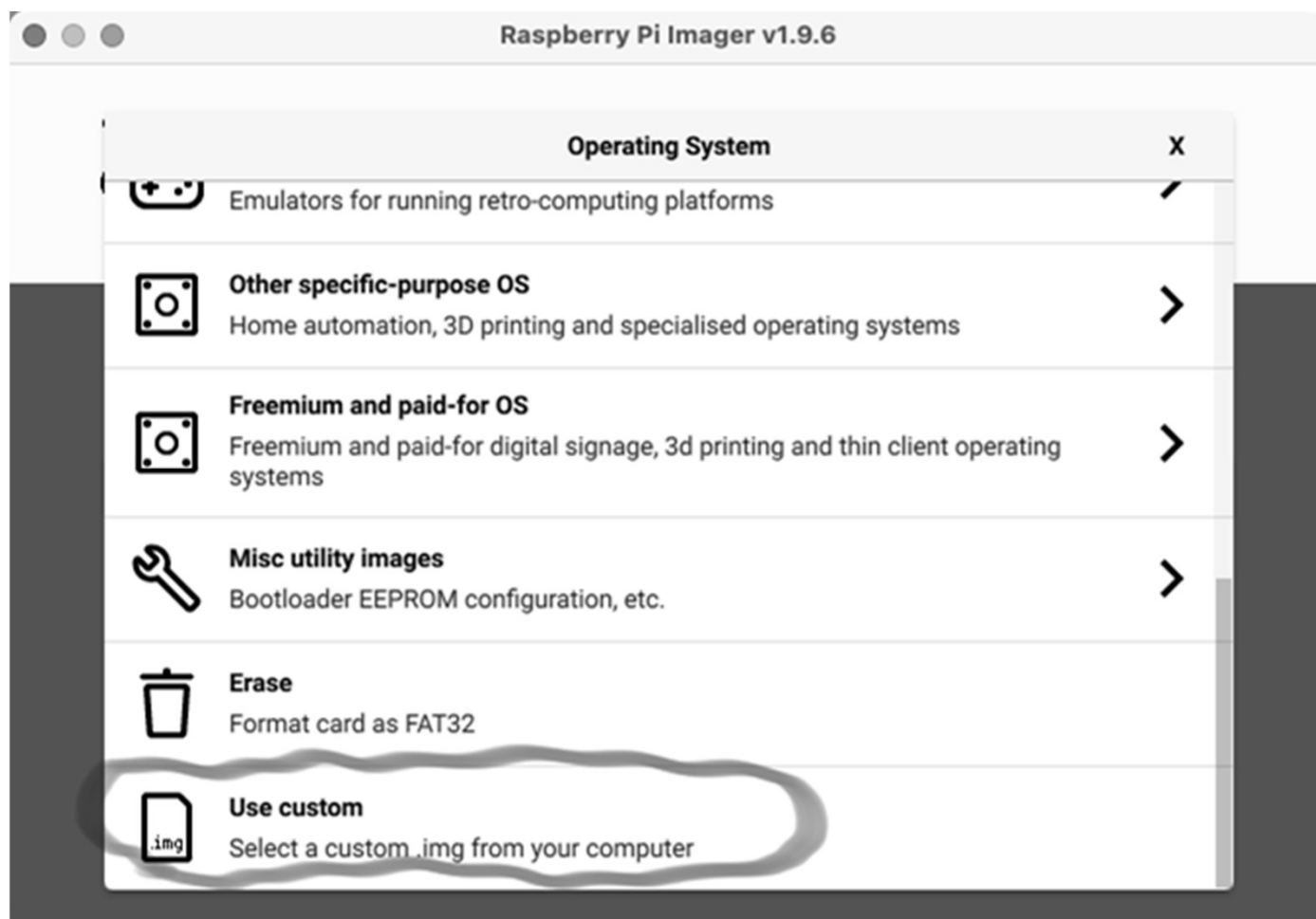
Create the SD card - Step 1



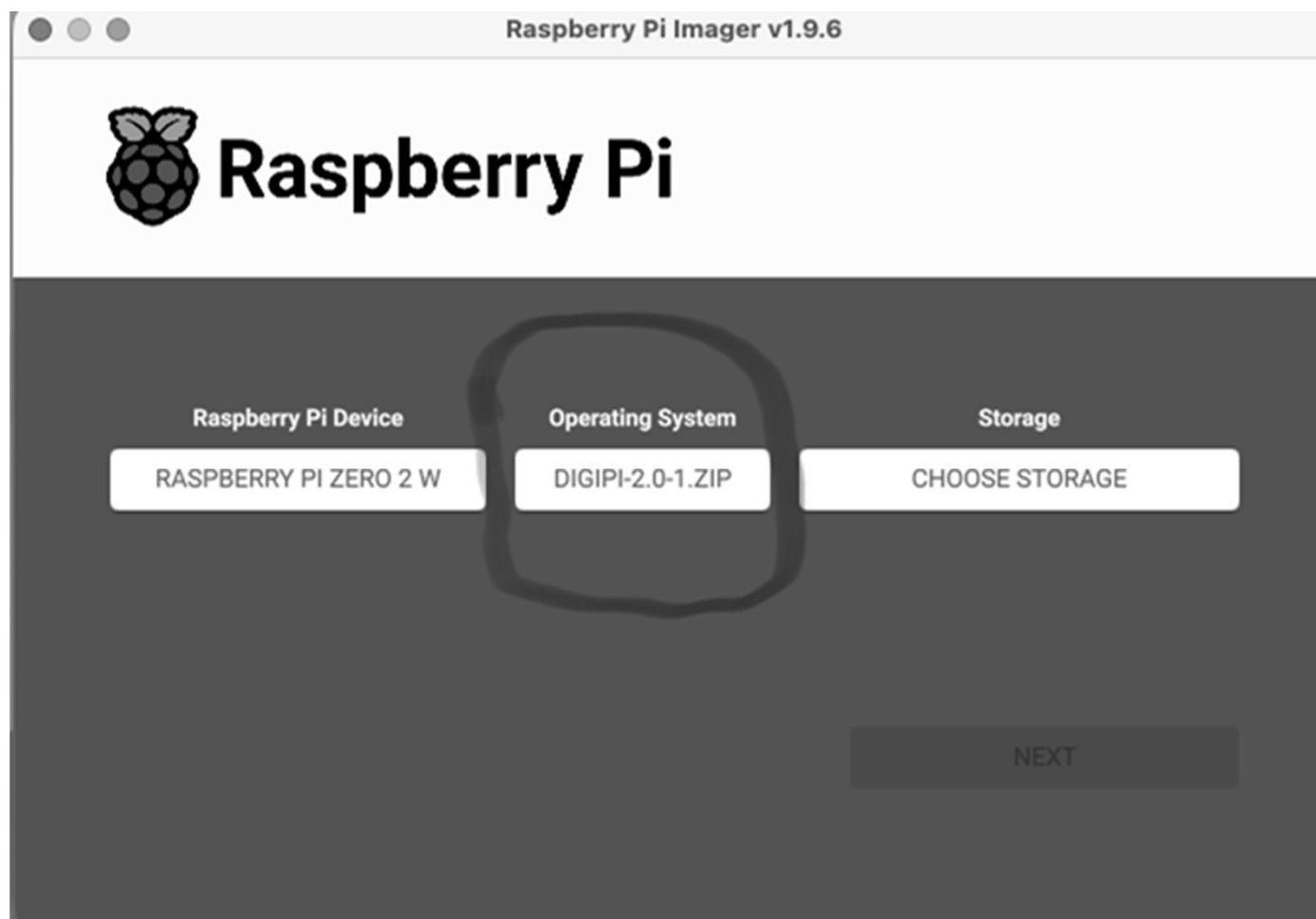
Create the SD card - Step 2



Create the SD card - Step 3



Create the SD card - Step 4



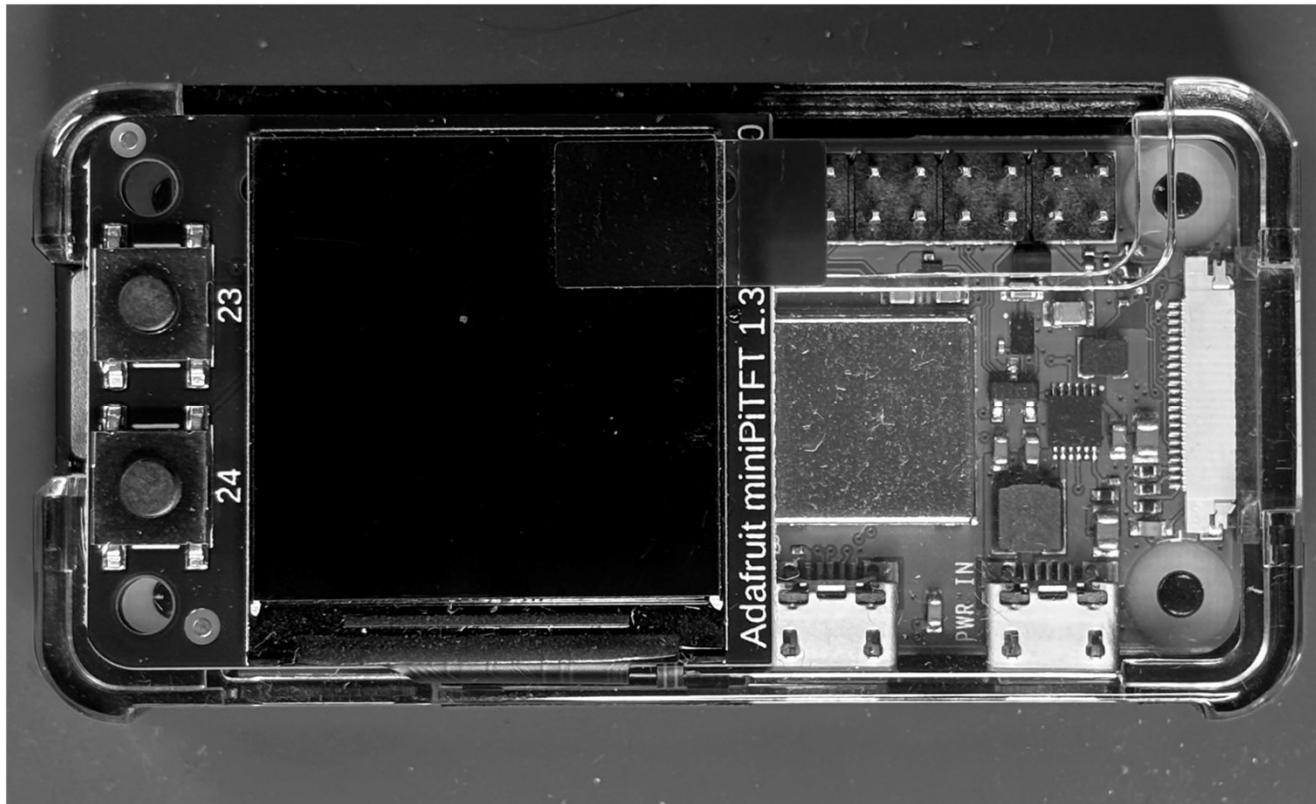
Create the SD card - Step 5



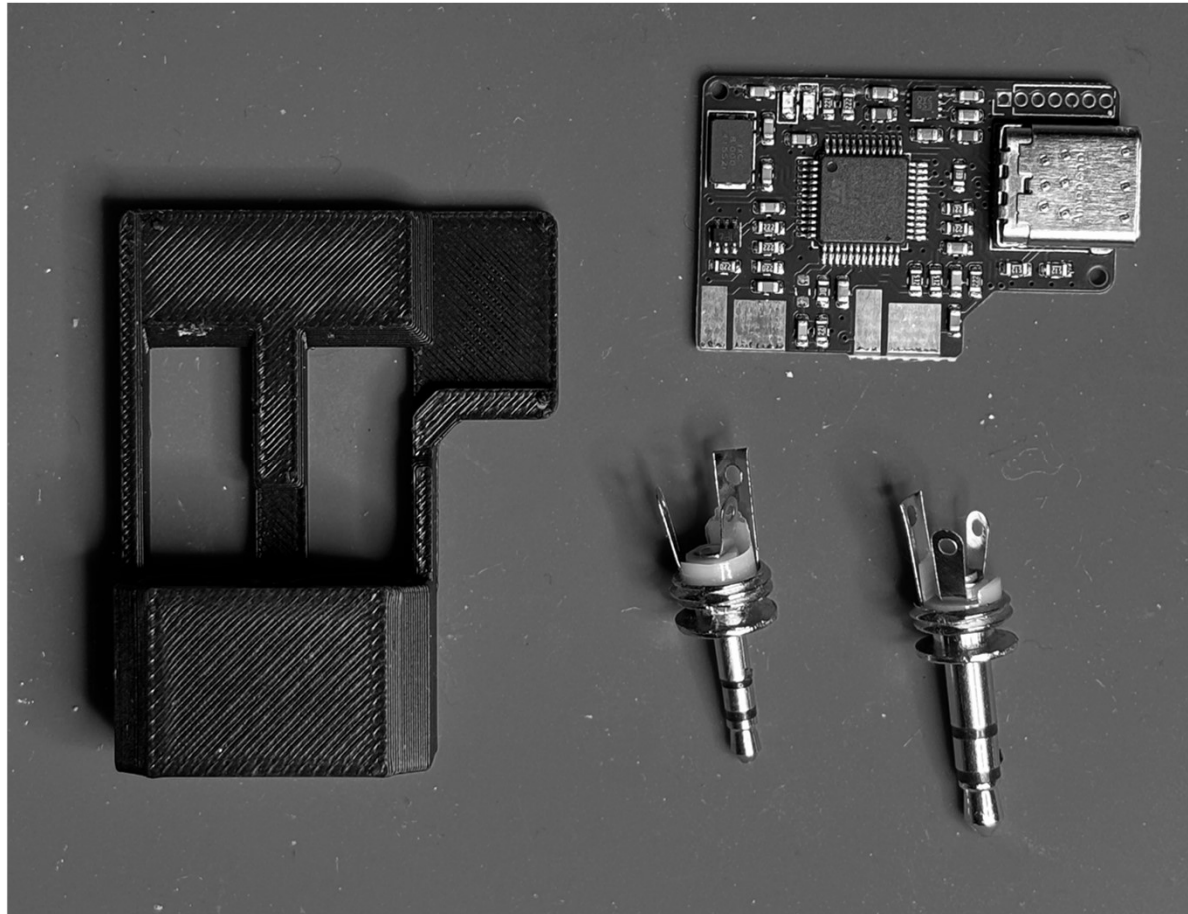
Create the SD card - Step 6



Raspberry Pi Zero 2 Wireless preparation



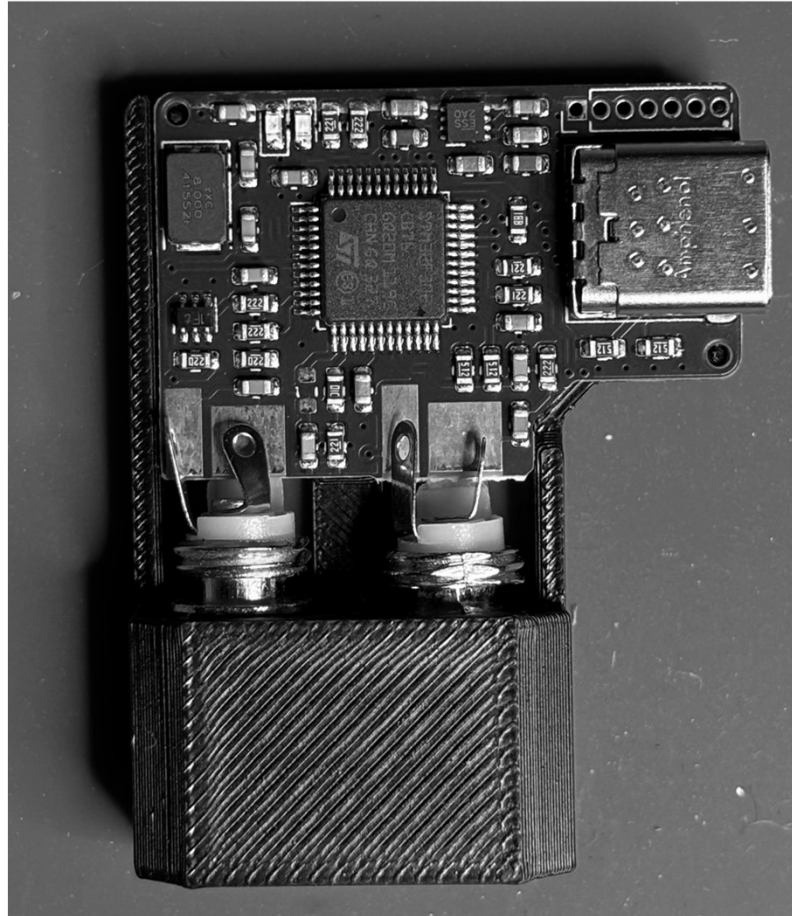
All-In-One-Cable (AIOC) prep - step 1



All-In-One-Cable (AIOC) prep - step 2



All-In-One-Cable (AIOC) prep - step 3



All-In-One-Cable (AIOC) prep - step 4



All-In-One-Cable (AIOC) prep - step 5

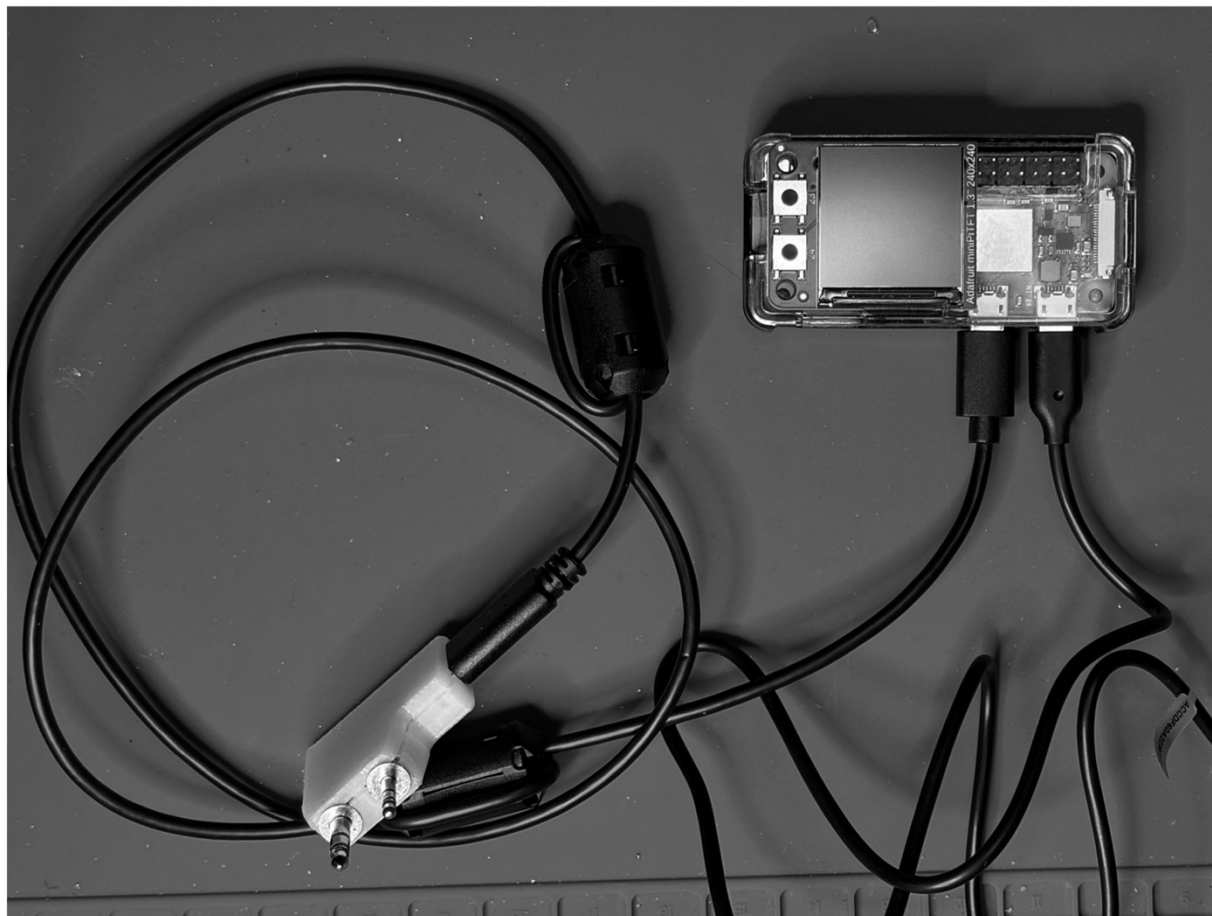


Startup

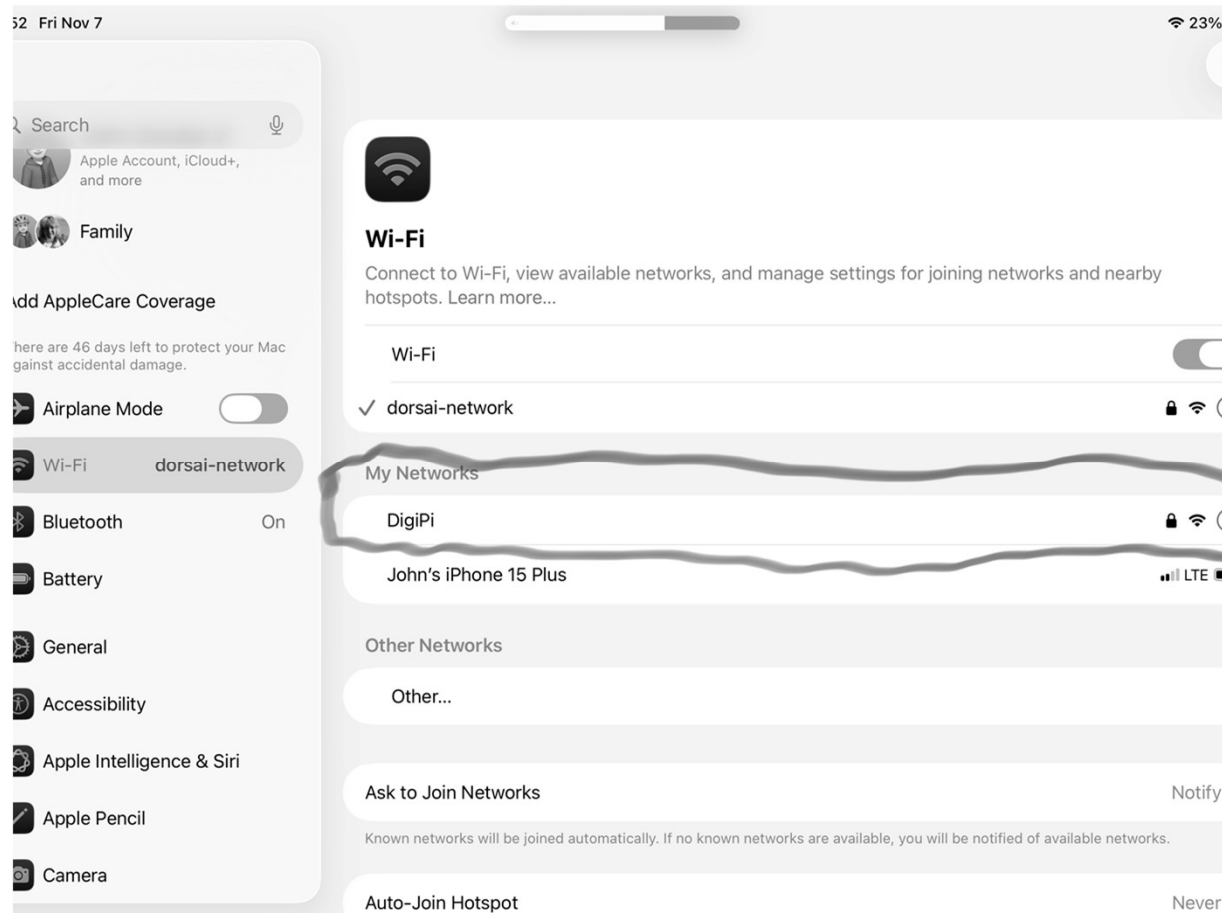


- **Plug the power connection to the LEFT micro-USB port.**
- **This port only provides power to the Pi, no other connectivity.**

Connect AIOC to left port



Connect to DigiPi over Wifi



Startup, continued



- Click on “Wifi”



Startup, continued

DigiPi



Wifi Setup

SSID:

PASS:



- Enter the sign on credentials for your wifi network.
- Click “Submit”
- Click “Restart”
- The Pi will disconnect from your phone.

Startup, continued

16:54 Fri Nov 7

digipi.local

Logbook by QRZ.C... AllScan Products -... Inrico TM-7 3G/WiF... Zello | The Most R

DigiPi

DigiPi Initialization

Please try to fill out this form completely the first time, as you cannot currently come back and make changes here later. If you need to make subsequent edits, see /home/pi/localize.env for items you can change after-the fact. You can always reflash your SD card and start over if not sure.

Callsign	KX6XXX	Base callsign, no sid/suffix
Winlink Password	*****	Create Account
APRS Password	12345	Generate
Grid Square	CN99mv	Find
Latitude	40.9999	Locate (12.3456)
Longitude	-120.9999	Locate (-123.4567)
GPS Device	ttyACM1	ttyACM1, ttyUSB0
AX.25 Node Pass	abc123	any alpha-numeric string
Default Mode	Standby	Service to start at boot
Screen Type	ST7789 240x240	Optional gpio display
Large Display	☐	Use with PC or large tablet
Radio Interface	AIOC	

Detected Radio/GPS devices
ttyACM0: usb-AIOC_All-In-One-Cable_d5921d0e-1f04

Detected audio interface:
0 [AllInOneCable]: USB-Audio - All-In-One-Cable AIOC All-In-One-Cable at usb-3f980000.usb-1, full speed



- When the Pi has finished starting up, go to your web browser and enter “digipi.local” in the address bar.
- Go to the bottom of the screen and click “Initialize”.
- The screen to the left will appear.

Startup, continued



17:03 Fri Nov 7

digipi.local

Logbook by QR... AllScan Product... Inrico TM-7 3G/... Zello | The Most... Frig

DigiPi

DigiPi Initialization

Please try to fill out this form completely the first time, as you cannot currently come back and make changes here later. If you need to make subsequent edits, see /home/pi/localize.env for items you can change after-the fact. You can always reflash your SD card and start over if not sure.

Callsign	K2ZA	Base callsign, no sid/suffix
Winlink Password	*****	Create Account
APRS Password	25233	Generate
Grid Square	FM29lo	Find
Latitude	39.60133	Locate (12.3456)
Longitude	-75.0515	Locate (-123.4567)
GPS Device	ttyACM1	ttyACM1, ttyUSB0
AX.25 Node Pass	abc123	any alpha-numeric string
Default Mode	APRS TNC	Service to start at boot
Screen Type	ST7789 240x240	Optional gpio display
Large Display	☐	Use with PC or large tablet
Radio Interface	AIOC	

Detected Radio/GPS devices
ttyACM0: usb-AIOC_All-In-One-Cable_d5921d0e-if04

Detected audio interface:
0 [AllInOneCable]: USB-Audio - All-In-One-Cable AIOC All-In-One-Cable at usb-3f980000.usb-1, full speed

- Make sure you have all your information correct, otherwise you will have to re-image your SD card.
- Enter your information and click “initialize”.
- Click on “Restart”

Startup, continued

DigiPi K2ZA



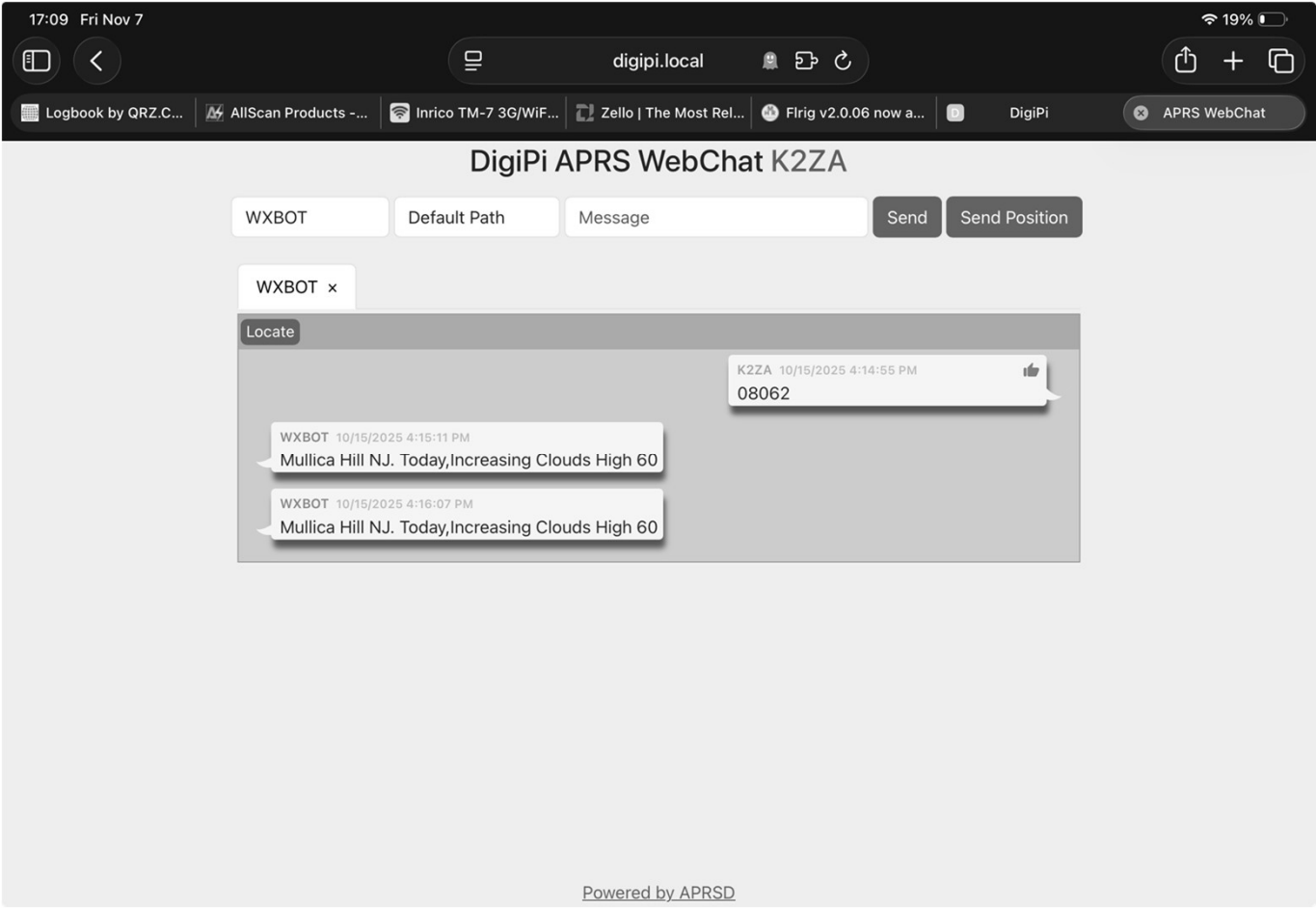
APRS TNC/igate	☒
APRS HF TNC/igate	☐
APRS Digipeater	☐
APRS GPS Tracker	☐
APRS WebChat	☒
AX.25 Node Network	☐
Winlink Email Server	☐
Pat Winlink Email Client	☐
ARDOP Modem	☐
WSJTX FT8	☐
Slow Scan TV	☐
FLDigi	☐
JS8Call	☐

PatEmail	AXCall	JS8Call
WSJTX	SSTV	FLDigi
Wifi	Shell	PktLog
SysLog	Screen	Webchat



- Turn on APRS/TNC by clicking the button.
- After the service has started, click the APRS WebChat button.
- After the WebChat service has started, click the WebChat link at the bottom of the screen.

Startup, continued





Questions?