



Abstract

CarpentriesOffline (<https://carpentriesoffline.org>) is an out of the box solution for running a Carpentries workshop from a single device such as a Raspberry Pi, old laptop or even a dedicated server. It is intended for use in environments where there is limited or no internet access. Everything needed to run the workshop including course notes, data files, software downloads, a Git server, etherpad and a JupyterHub server are provided by the CarpentriesOffline system. It can also provide a backup environment for those with better connectivity in the event of the Carpentries website, etherpad, GitHub etc suffering an outage.

Raspberry Pi Solution



Figure 1. A Raspberry Pi Zero running CarpentriesOffline on RPi OS and powered with a USB Power Bank - tested at RSECon2022

FlashDrive Solution



Figure 2. A bootable flashdrive with Debian based Slax Linux and everything needed to turn a laptop into an access point and a web server

The miniHPC

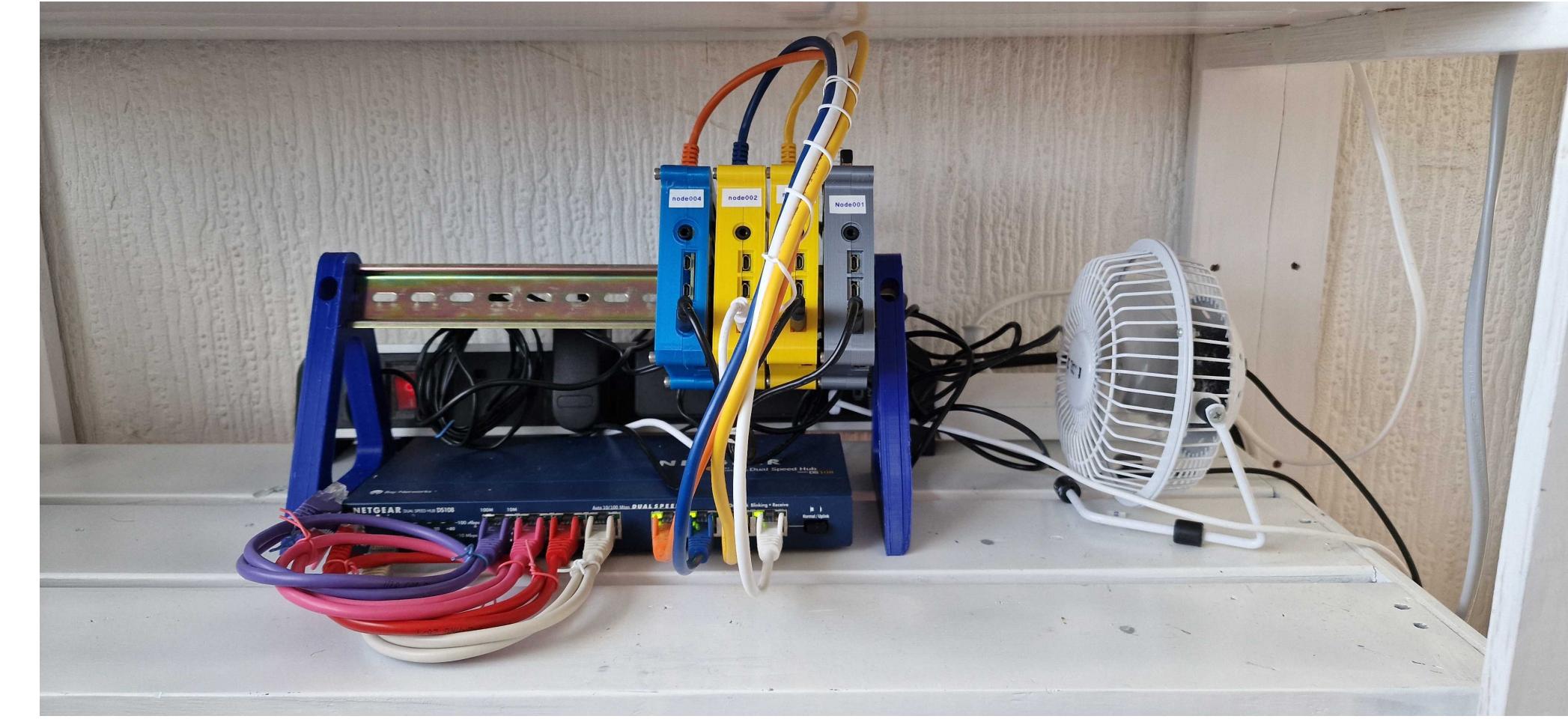


Figure 3. The prototype miniHPC built from RPi4s using RPi 4s that I had in the house. For the next iteration I bought Rock Pi 4C+

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Pixie the Prototype

Item	Qty	Item	Qty
Raspberry Pi 4	5	RockPi 4C+	8
Power supply	5	RockPi 4SE	1
8 port switch	1	Power supply	1
8 port strip plug	1	10 port switch	1
Short Cat 6 10baseT	8	4 port strip plug	1
Cooling fan	1	Short Cat 6 10baseT	9
DIN Rail	1	Dual Cooling fan	1
3D printed rail stand	2	DIN Rail	1
3D printed DIN rail cases	5	3D printed rail stand	2
		3D printed DIN rail cases	9

Table 1. BOM for Prototype miniHPC using Raspberry Pi 4s

Table 2. BOM for RockPi 4C+ miniHPC

name1

stuf stuf stuf

name2

stuff stuff stuff