Jumpstarter

Open Hardware in the Loop for everybody

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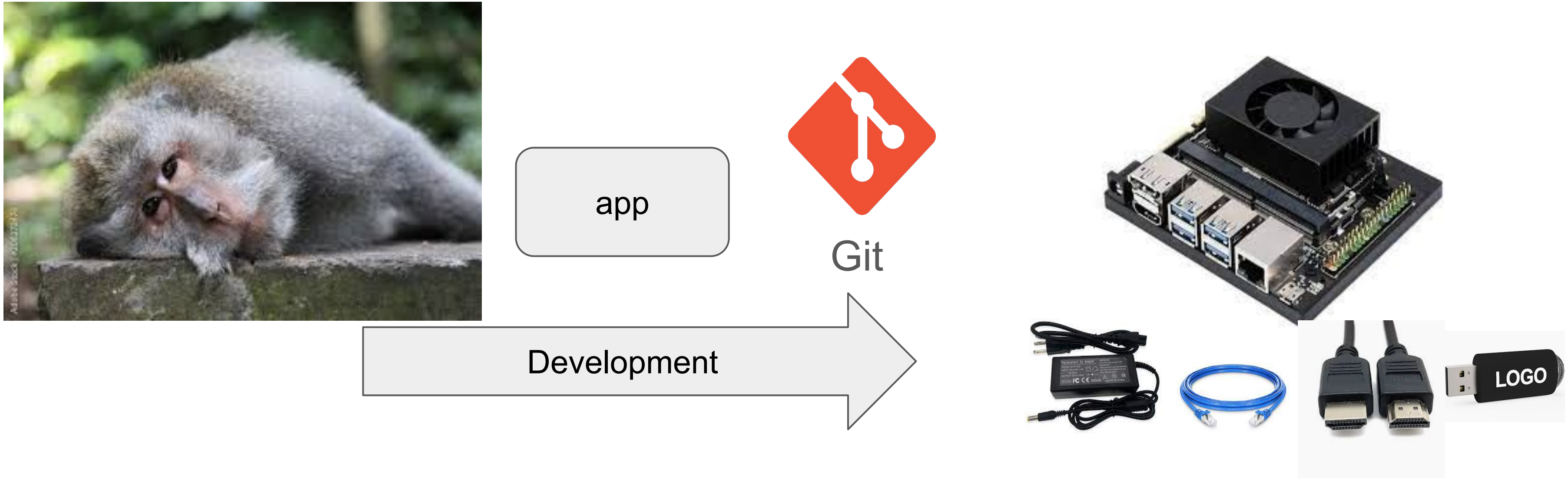
FOSDEM'24
Brussels / 3 & 4 February 2024

https://jumpstarter.dev

Daily life of “Peanut the developer”



app

Git

Development

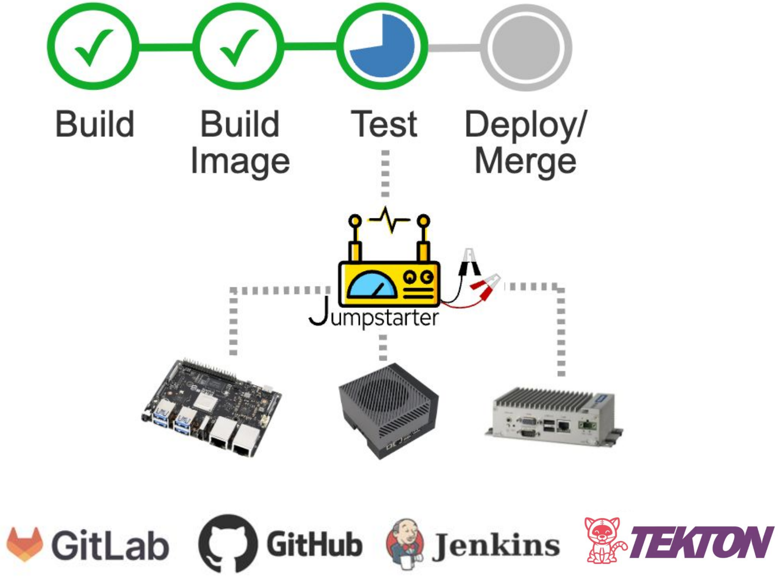
The origins of Jumpstarter

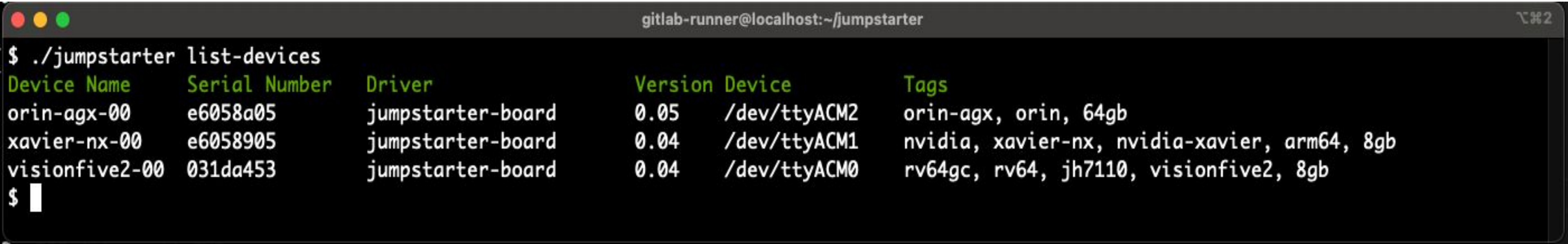
- Challenges in testing embedded devices
  - Automated testing
  - Lack of standardization
  - Rare or expensive CI enrollment
- Testing Goals
  - Every new pull request/merge should be tested in real hardware
  - Every release tested in different versions of the platform
- Hands-free Development
  - Eliminate manual tasks for integration.

https://jumpstarter.dev

Jumpstarter: The software

- Project written in Golang
- Concept of devices and drivers
- Script language (yaml)
- Power management
- Control signal management
- Storage management
- Console management

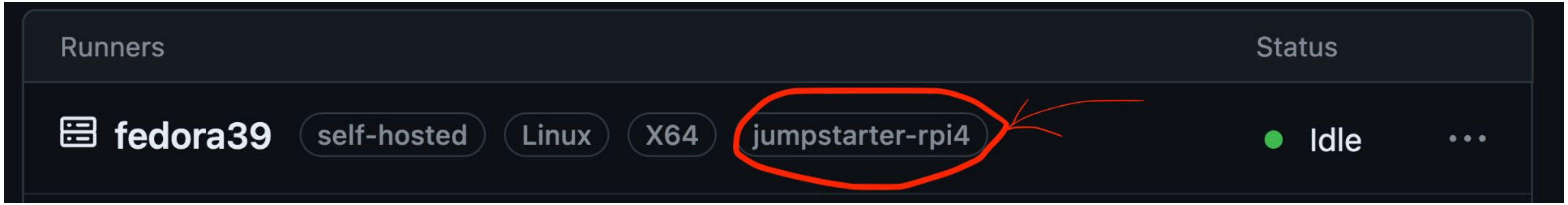




```
$ ./jumpstarter list-devices
Device Name      Serial Number   Driver                 Version Device          Tags
orin-agx-00      e6058a05        jumpstarter-board      0.05    /dev/ttyACM2    orin-agx, orin, 64gb
xavier-nx-00     e6058905        jumpstarter-board      0.04    /dev/ttyACM1    nvidia, xavier-nx, nvidia-xavier, arm64, 8gb
visionfive2-00   031da453        jumpstarter-board      0.04    /dev/ttyACM0    rv64gc, rv64, jh7110, visionfive2, 8gb
$ █
```

GitHub Actions

- A self-hosted runner service per available piece of hardware, use runner tags to identify the hardware. GitHub Project>Actions>Runners>New self-hosted runner



Runners	Status
fedora39 self-hosted Linux X64 jumpstarter-rpi4	● Idle

- If using a DUTLink, make sure it’s connected to the runner via USB
- Add a workflow configuration to your repository (next slide)

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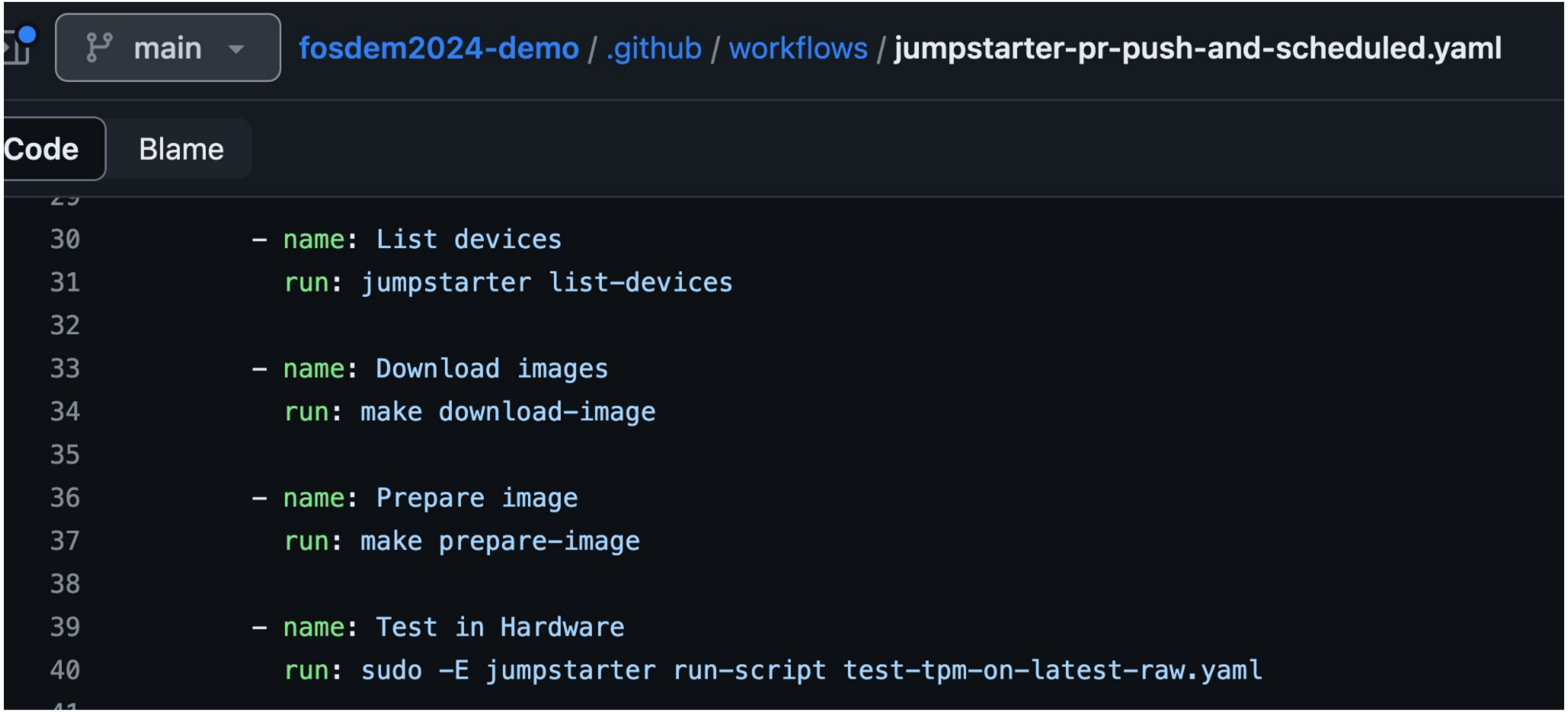
GitHub Action: workflow example


main
fosdem2024-demo / .github / workflows / jumpstarter-pr-push-and-scheduled.yaml
Code
Blame

```
      - name: List devices
        run: jumpstarter list-devices

      - name: Download images
        run: make download-image

      - name: Prepare image
        run: make prepare-image

      - name: Test in Hardware
        run: sudo -E jumpstarter run-script test-tpm-on-latest-raw.yaml
```

https://github.com/jumpstarter-dev/fosdem2024-demo/blob/main/.github/workflows/jumpstarter-pr-push-and-scheduled.yaml#L30

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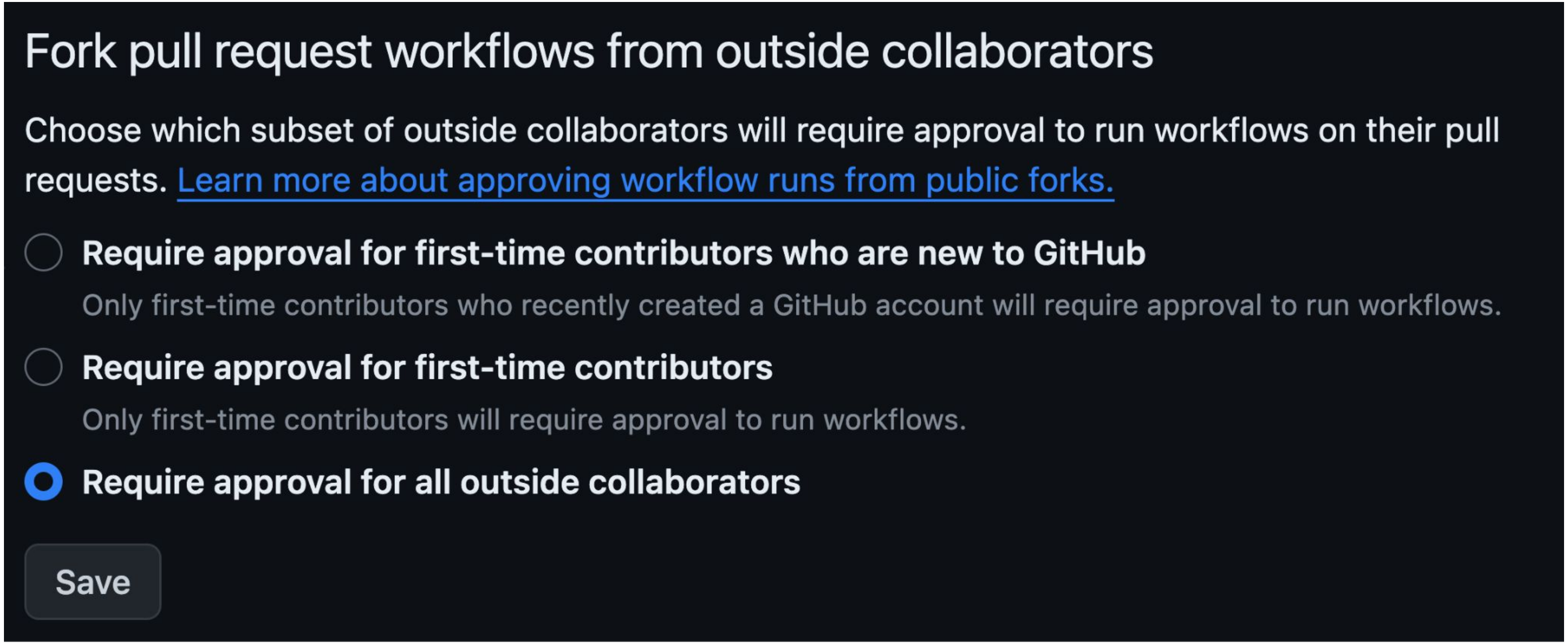
⚠️ A word of caution

GitHub Project > Actions > General



Fork pull request workflows from outside collaborators

Choose which subset of outside collaborators will require approval to run workflows on their pull requests. Learn more about approving workflow runs from public forks.

○ **Require approval for first-time contributors who are new to GitHub**

Only first-time contributors who recently created a GitHub account will require approval to run workflows.

○ **Require approval for first-time contributors**

Only first-time contributors will require approval to run workflows.

● **Require approval for all outside collaborators**

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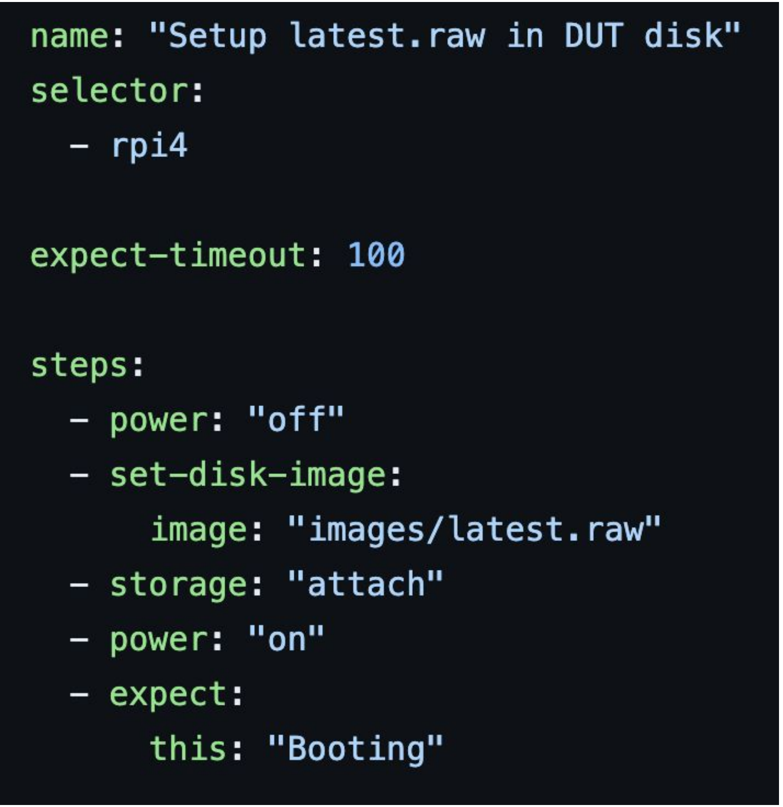
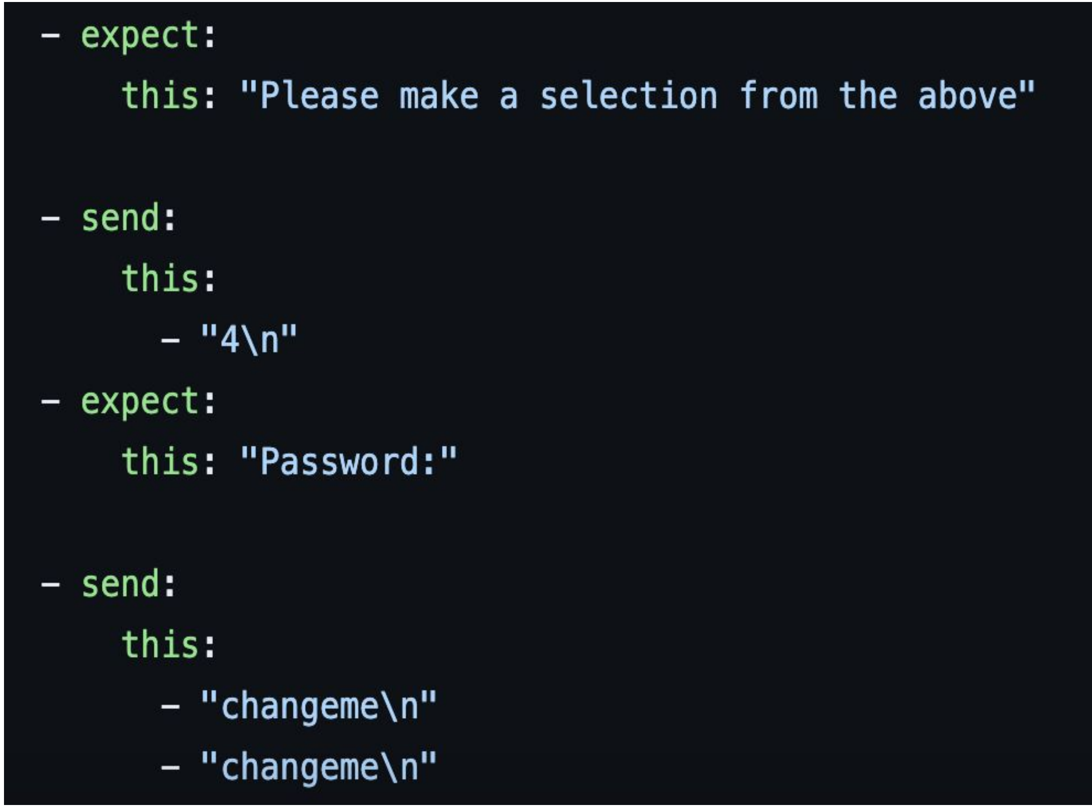
Jumpstarter Script Language



```yaml
name: "Setup latest.raw in DUT disk"
selector:
  - rpi4

expect-timeout: 100

steps:
  - power: "off"
  - set-disk-image:
      image: "images/latest.raw"
  - storage: "attach"
  - power: "on"
  - expect:
      this: "Booting"
```



```yaml
- expect:
    this: "Please make a selection from the above"

- send:
    this:
      - "4\n"
- expect:
    this: "Password:"

- send:
    this:
      - "changeme\n"
      - "changeme\n"
```

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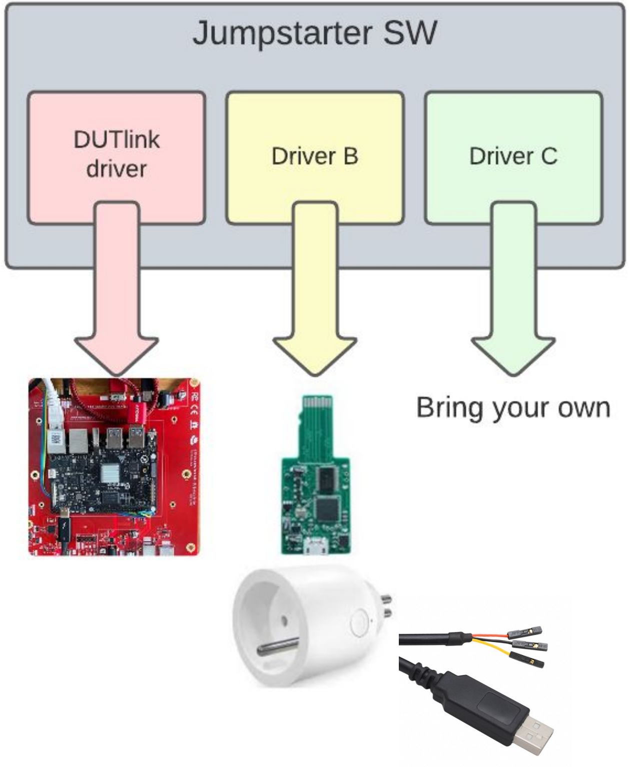
The hardware: driver based model, add your own!

- Driver based architecture
- Responsible for providing functionalities
- Each driver will talk to a specific HW
  - DUTlink
  - SD card mux + smart plug + serial
  - BYOD
- i.e.: sd-wire+smartplug driver: https://github.com/jumpstarter-dev/jumpstarter/pull/8



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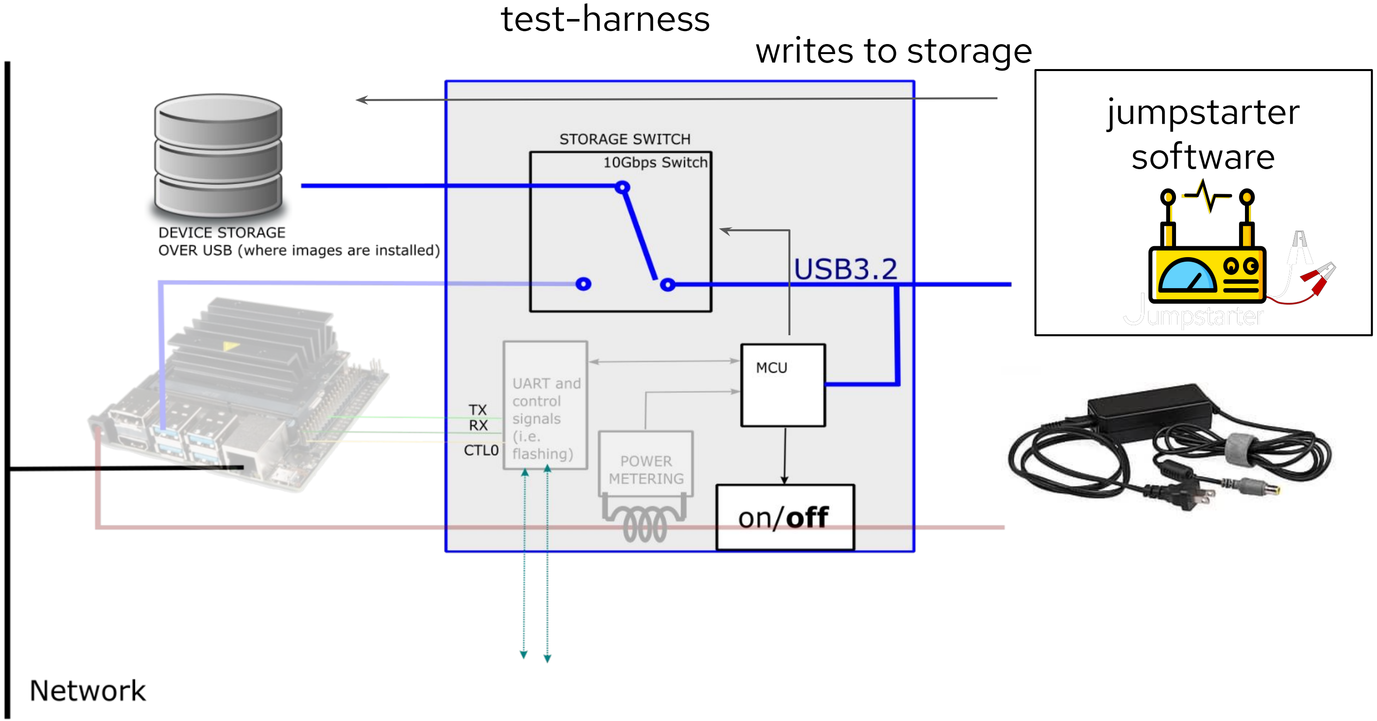
We created an Open Source Test Harness

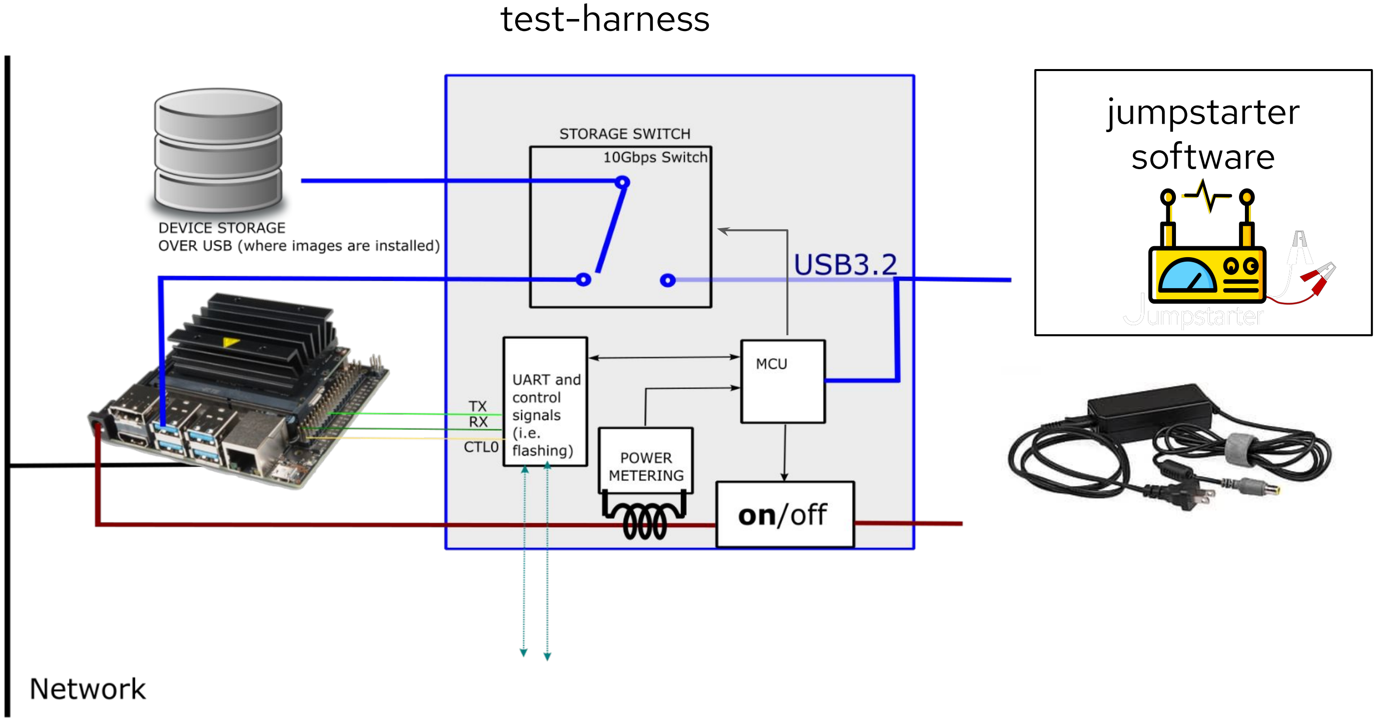
DUTLink-board

https://github.com/jumpstarter-dev/dutlink-board

DUTLink board: How does it work (step 1)



DUTLink board: How does it work (step 2)



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The hardware: (DUTLink board) what does it offer?

- Mini ITX form factor.
- Power control 5-25V (barrel jack or USB C F
- Power metering: 0-5 Amp
- I2C Connector
- SPI Connector (in the form
- UART console
- CTL A … D TTL signals
- RESET signal for target
- USB storage multiplexing
  - (USB3 Gen1 5Gbps) ~400M
  - Do not use Gen2 yet

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The DUTLink hardware

- **KiCad** design (https://github.com/jumpstarter-dev/dutlink-board)

  Manufacturing files/releases:

  - **v1.0.0:** initial prototype, just small issues (USBC twist connector..) $80/device

    https://github.com/jumpstarter-dev/dutlink-board/releases/tag/1.0.0

  - **v1.1.0:** EMC filtering, USB storage moved inside, SPI/I2C connectors. $90/device

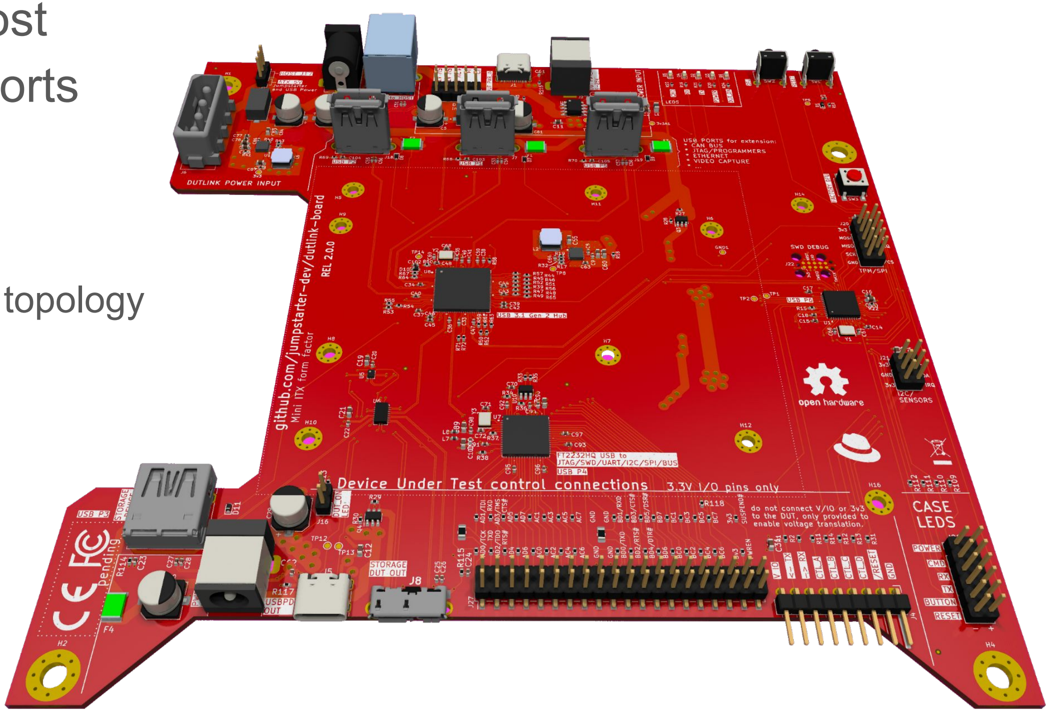
    https://github.com/jumpstarter-dev/dutlink-board/releases/tag/1.1.0

  - **v2.0.0:** major improvements: USB3 Hub, FT2232, doubled cost :(. $180/device

    https://github.com/jumpstarter-dev/dutlink-board/releases/tag/2.0.0 (untested)

DUTLink 2.0.0

- Single USB connection to host
- Integrated USB hub with 3 ports
  - Video capture
  - JTAG programmers
  - CAN Bus interfaces, etc…
  - Devices discoverable via USB topology
- Integrated FT2232 chip
- ATX Power input connector
- Still not prototyped...



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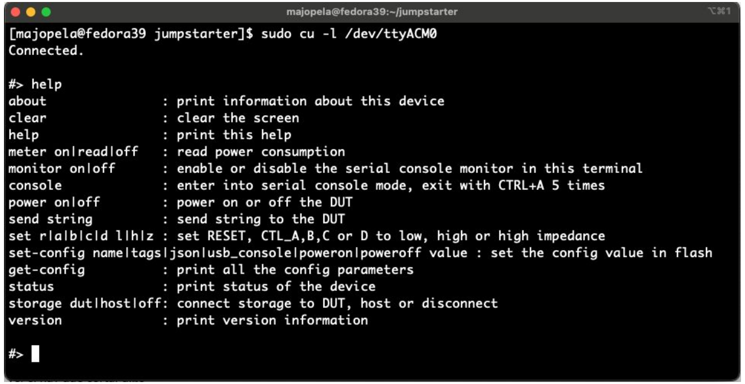
The DUTLink hardware

- **Firmware**
  - written in Rust 🦀 https://github.com/jumpstarter-dev/dutlink-firmware
    - Uses the RTIC v1 framework
    - can be updated via fwupd
      - bootloader based on usbd-dfu (from vitalyvb)
      - application, uses usb-dfu-rt (from jedrzejboczar)
  - It has a shell!

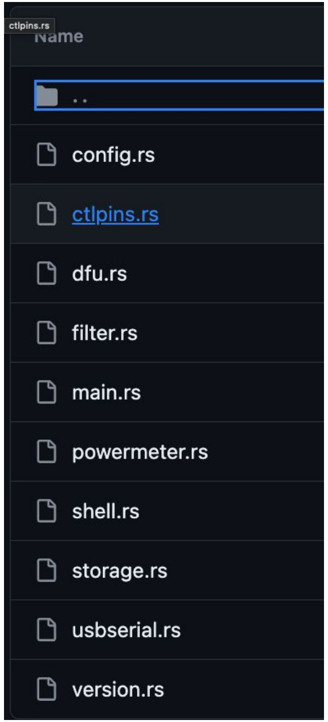


majopela@fedora39:~/jumpstarter

```
[majopela@fedora39 jumpstarter]$ sudo cu -l /dev/ttyACM0
Connected.

#> help
about                : print information about this device
clear                : clear the screen
help                 : print this help
meter on|read|off    : read power consumption
monitor on|off       : enable or disable the serial console monitor in this terminal
console              : enter into serial console mode, exit with CTRL+A 5 times
power on|off         : power on or off the DUT
send string          : send string to the DUT
set r|a|b|c|d l|h|z : set RESET, CTL_A,B,C or D to low, high or high impedance
set-config name|tags|json|usb_console|poweron|poweroff value : set the config value in flash
get-config           : print all the config parameters
status               : print status of the device
storage dut|host|off: connect storage to DUT, host or disconnect
version              : print version information

#> ▌
```



Name

..

config.rs

ctlpins.rs

dfu.rs

filter.rs

main.rs

powermeter.rs

shell.rs

storage.rs

usbserial.rs

version.rs

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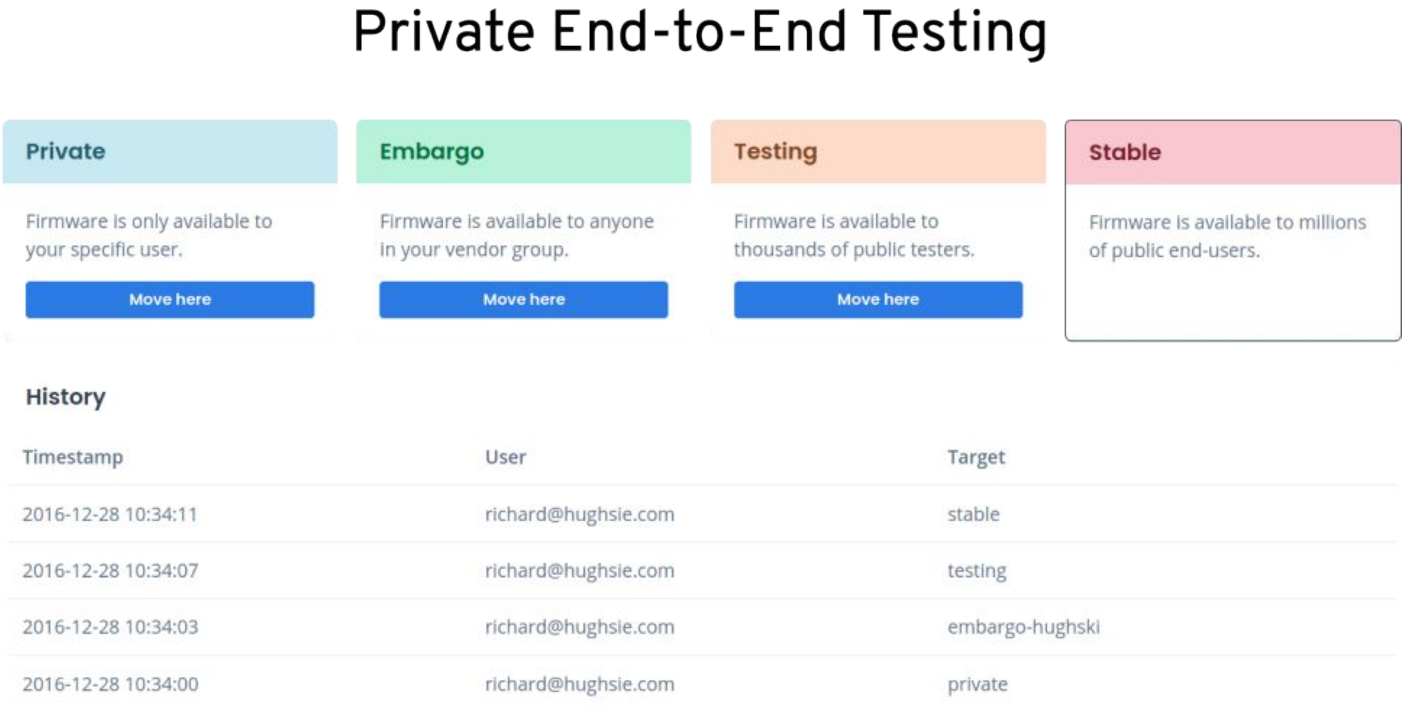
fwupd: Makes it easy to manage your firmware in the field via LVFS

https://fwupd.org



Private End-to-End Testing

Private

Firmware is only available to your specific user.

Embargo

Firmware is available to anyone in your vendor group.

Testing

Firmware is available to thousands of public testers.

Stable

Firmware is available to millions of public end-users.

History

Timestamp	User	Target
2016-12-28 10:34:11	richard@hughsie.com	stable
2016-12-28 10:34:07	richard@hughsie.com	testing
2016-12-28 10:34:03	richard@hughsie.com	embargo-hughski
2016-12-28 10:34:00	richard@hughsie.com	private

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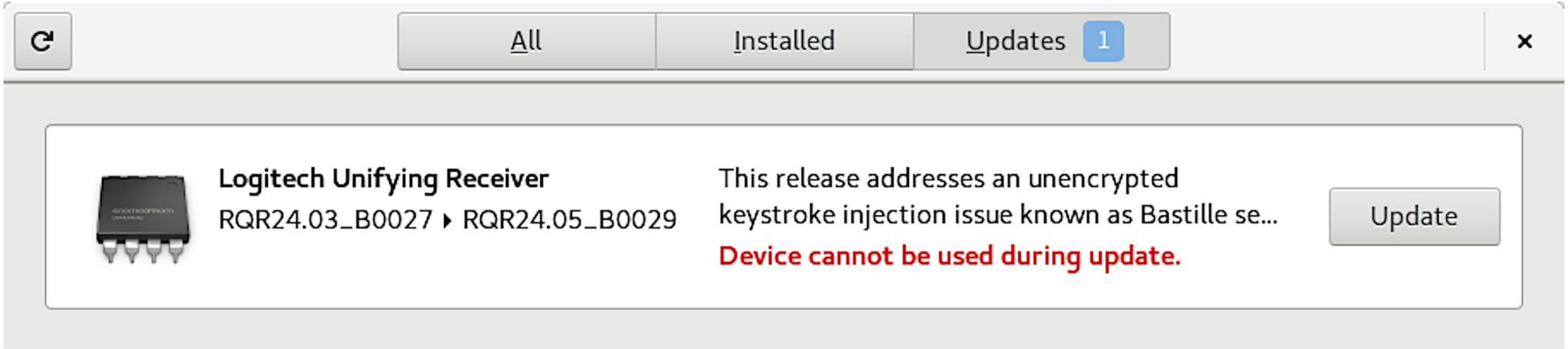
https://fwupd.org/lvfs/docs/vendors

fwupd: And very easy to update

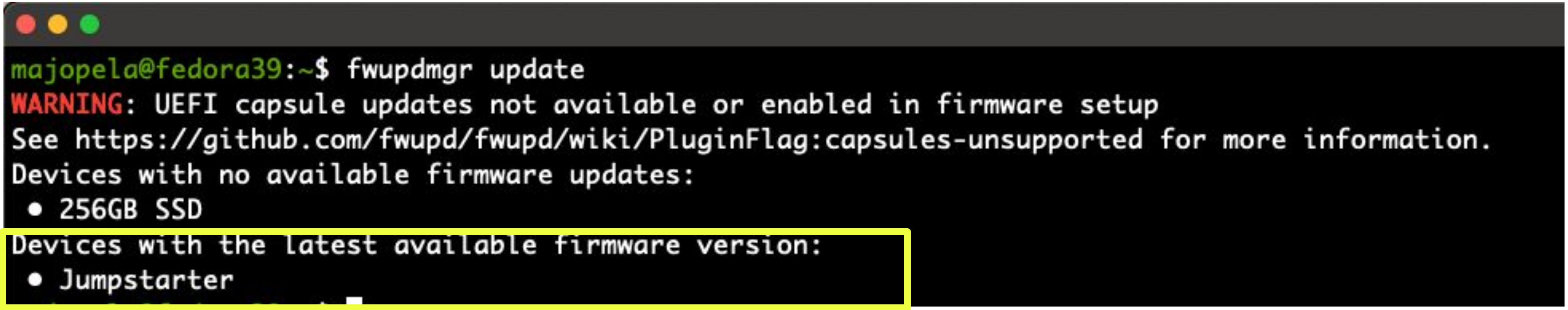


Logitech Unifying Receiver

RQR24.03_B0027 ▸ RQR24.05_B0029

This release addresses an unencrypted keystroke injection issue known as Bastille se...

Device cannot be used during update.



```
majopela@fedora39:~$ fwupdmgr update
WARNING: UEFI capsule updates not available or enabled in firmware setup
See https://github.com/fwupd/fwupd/wiki/PluginFlag:capsules-unsupported for more information.
Devices with no available firmware updates:
 • 256GB SSD
Devices with the latest available firmware version:
 • Jumpstarter
```

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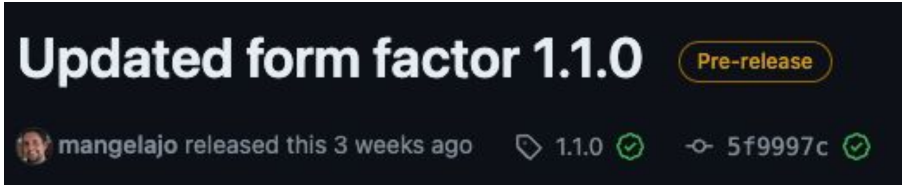
Open Hardware Approach

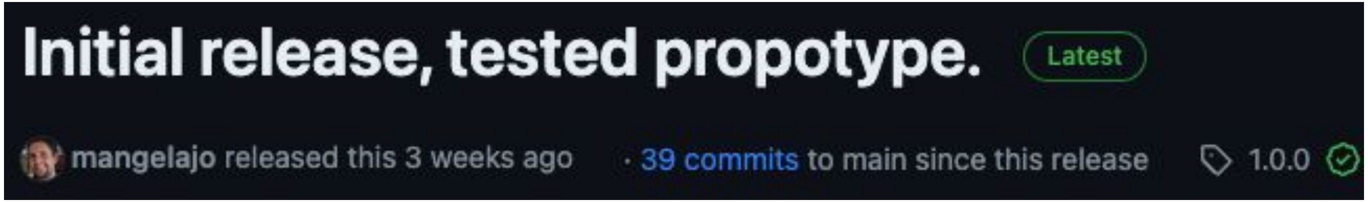
- Every hardware release is published with manufacturing files (Pre-release)



Updated form factor 1.1.0 Pre-release

mangelajo released this 3 weeks ago 1.1.0 5f9997c

- We test and prototype.
- Once the new release is tested/validated we mark Pre-release -> Latest



Initial release, tested propotype. Latest

mangelajo released this 3 weeks ago · 39 commits to main since this release 1.0.0

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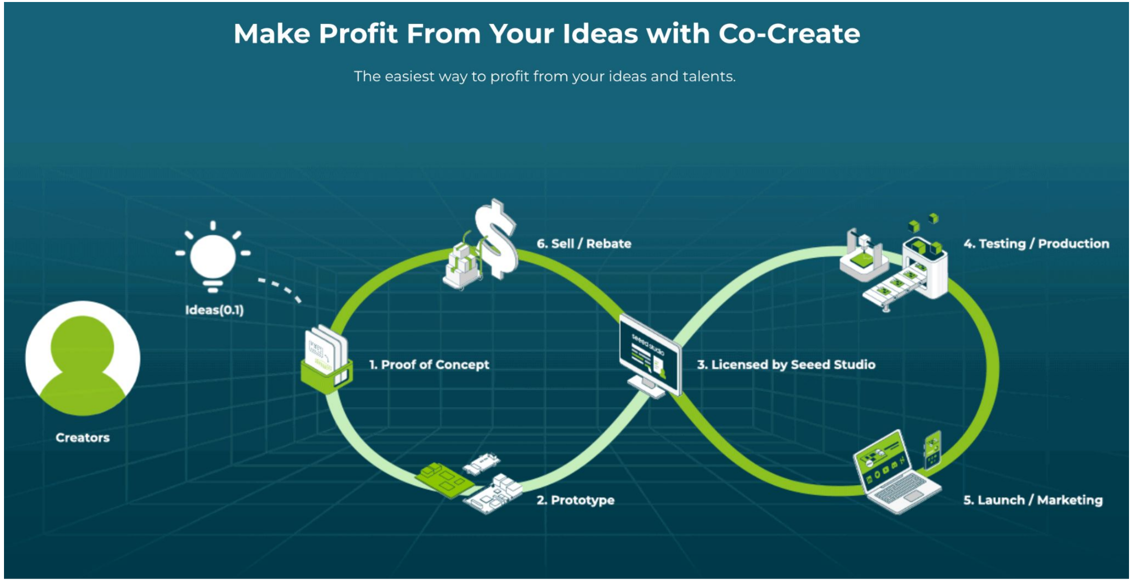
Seeed Studio Co-Create program

We have been talking to Seeed Studio to include the DUTLink board in the Co-Create program and it's being evaluated.

As a software company we are not interested in selling the hardware, but we are happy to make it available for others to make.


Make Profit From Your Ideas with Co-Create
The easiest way to profit from your ideas and talents.
Creators
Ideas(0.1)
1. Proof of Concept
2. Prototype
3. Licensed by Seeed Studio
4. Testing / Production
5. Launch / Marketing
6. Sell / Rebate

In the meanwhile:

- 1.0.0 https://www.seeedstudio.com/Jumpstarter-DUTLink-board-g-1395074
- 1.1.0 https://www.seeedstudio.com/Jumpstarter-DUTLink-board-1-1-0-g-1405971

Demo time

https://jumpstarter.dev

Demo time

- The local workflow
- The GitHub/CI workflow
  - https://github.com/jumpstarter-dev/fosdem2024-demo

Last thoughts

- Other projects that are doing similar things
  - Let us know!
  - Let’s work together.

Q&A

jumpstarter.dev

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Ricardo Noriega de Soto
<rnoriega@redhat.com>
twitter.com/rickynds

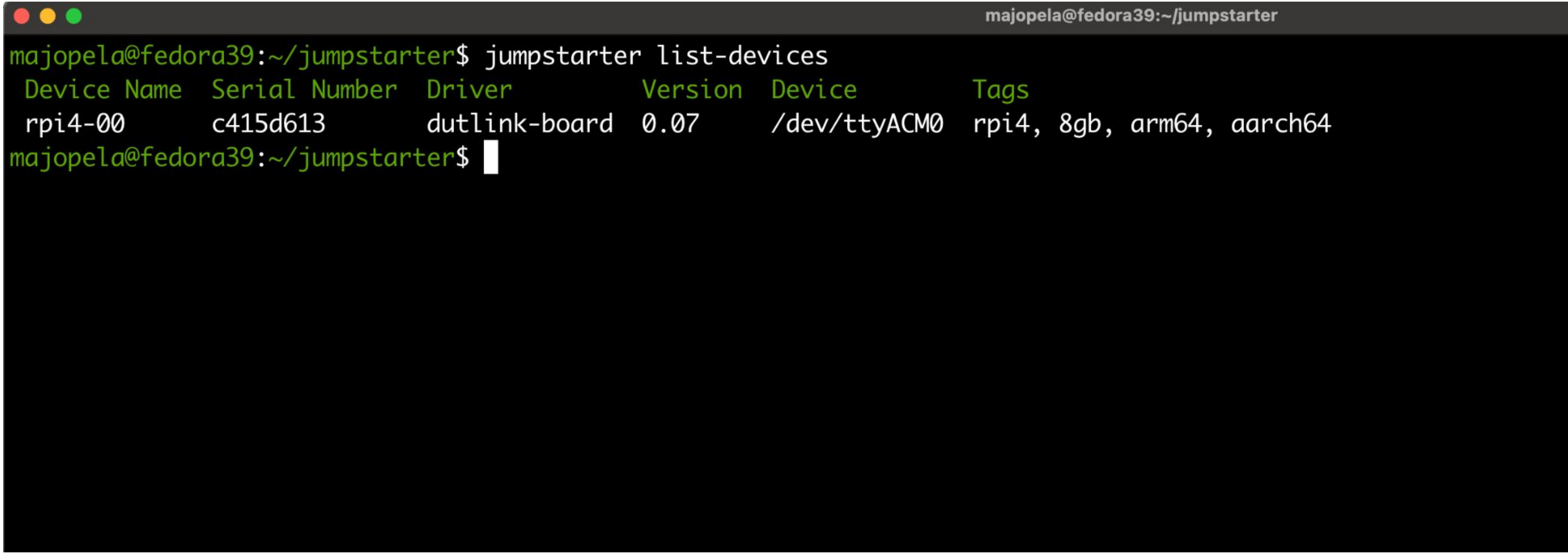
https://jumpstarter.dev

Demo backup slides

Just in case :-)

Local workflow example

- show jumpstarter
- make prepare-image
- make test-in-hardware



```
majopela@fedora39:~/jumpstarter$ jumpstarter list-devices
 Device Name  Serial Number  Driver         Version  Device        Tags
 rpi4-00      c415d613       dutlink-board  0.07     /dev/ttyACM0  rpi4, 8gb, arm64, aarch64
majopela@fedora39:~/jumpstarter$ 
```

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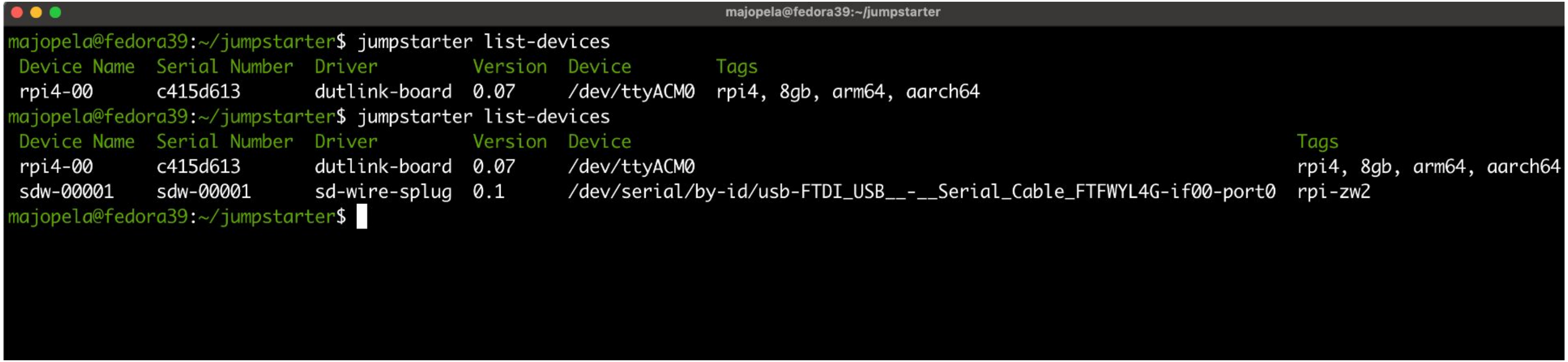

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majopela@fedora39:~/jumpstarter$ jumpstarter list-devices
 Device Name  Serial Number  Driver         Version  Device                                                               Tags
 rpi4-00      c415d613       dutlink-board  0.07     /dev/ttyACM0                                                         rpi4, 8gb, arm64, aarch64
 sdw-00001    sdw-00001      sd-wire-splug  0.1      /dev/serial/by-id/usb-FTDI_USB__-__Serial_Cable_FTFWYL4G-if00-port0  rpi-zw2
majopela@fedora39:~/jumpstarter$ 
```

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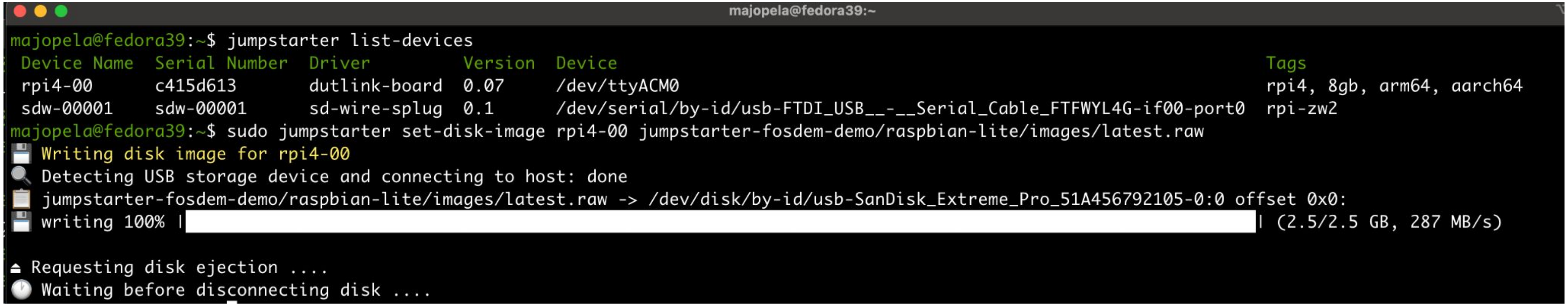

```
majopela@fedora39:~$ jumpstarter list-devices
 Device Name  Serial Number  Driver         Version  Device                                                             Tags
 rpi4-00      c415d613       dutlink-board  0.07     /dev/ttyACM0                                                       rpi4, 8gb, arm64, aarch64
 sdw-00001    sdw-00001      sd-wire-splug  0.1      /dev/serial/by-id/usb-FTDI_USB__-__Serial_Cable_FTFWYL4G-if00-port0  rpi-zw2
majopela@fedora39:~$ sudo jumpstarter set-disk-image rpi4-00 jumpstarter-fosdem-demo/raspbian-lite/images/latest.raw
💾 Writing disk image for rpi4-00
🔍 Detecting USB storage device and connecting to host: done
📋 jumpstarter-fosdem-demo/raspbian-lite/images/latest.raw -> /dev/disk/by-id/usb-SanDisk_Extreme_Pro_51A456792105-0:0 offset 0x0:
💾 writing 100% |████████████████████████████████████████████████████| (2.5/2.5 GB, 287 MB/s)

⏏ Requesting disk ejection ....
🕐 Waiting before disconnecting disk ....
```

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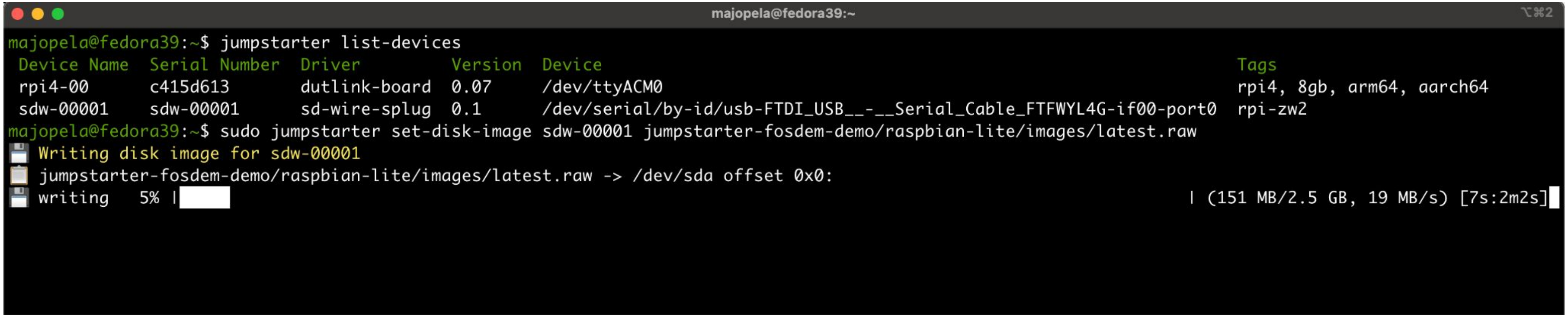

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majopela@fedora39:~$ jumpstarter list-devices
 Device Name  Serial Number  Driver         Version  Device                                                               Tags
 rpi4-00      c415d613       dutlink-board  0.07     /dev/ttyACM0                                                         rpi4, 8gb, arm64, aarch64
 sdw-00001    sdw-00001      sd-wire-splug  0.1      /dev/serial/by-id/usb-FTDI_USB__-__Serial_Cable_FTFWYL4G-if00-port0  rpi-zw2
majopela@fedora39:~$ sudo jumpstarter set-disk-image sdw-00001 jumpstarter-fosdem-demo/raspbian-lite/images/latest.raw
💾 Writing disk image for sdw-00001
📋 jumpstarter-fosdem-demo/raspbian-lite/images/latest.raw -> /dev/sda offset 0x0:
💾 writing   5% |█████                                                                                                | (151 MB/2.5 GB, 19 MB/s) [7s:2m2s]
```

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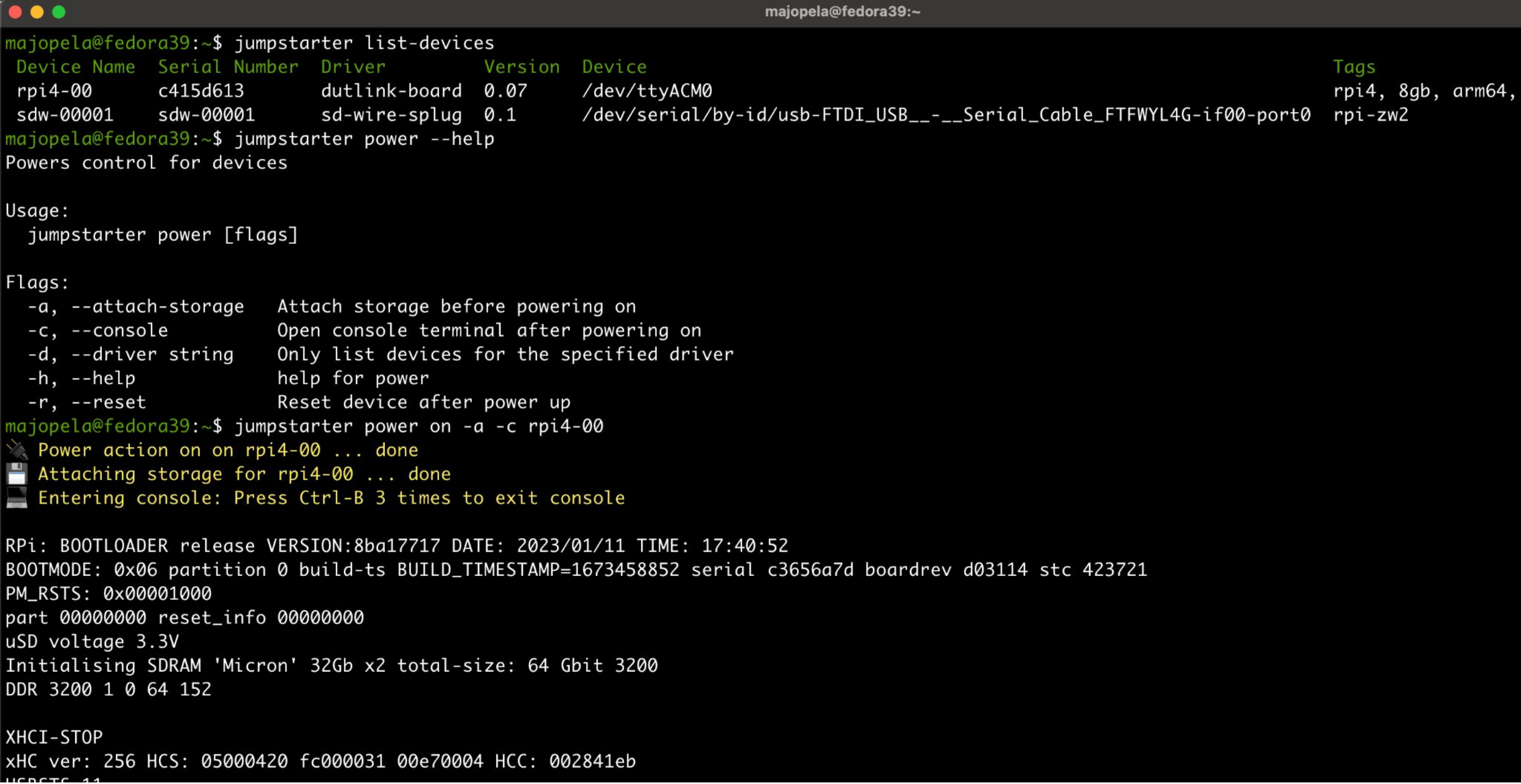

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majopela@fedora39:~$ jumpstarter list-devices
 Device Name  Serial Number  Driver         Version  Device                                                               Tags
 rpi4-00      c415d613       dutlink-board  0.07     /dev/ttyACM0                                                         rpi4, 8gb, arm64,
 sdw-00001    sdw-00001      sd-wire-splug  0.1      /dev/serial/by-id/usb-FTDI_USB__-__Serial_Cable_FTFWYL4G-if00-port0  rpi-zw2
majopela@fedora39:~$ jumpstarter power --help
Powers control for devices

Usage:
  jumpstarter power [flags]

Flags:
  -a, --attach-storage   Attach storage before powering on
  -c, --console          Open console terminal after powering on
  -d, --driver string    Only list devices for the specified driver
  -h, --help             help for power
  -r, --reset            Reset device after power up
majopela@fedora39:~$ jumpstarter power on -a -c rpi4-00
🔌 Power action on on rpi4-00 ... done
💾 Attaching storage for rpi4-00 ... done
💻 Entering console: Press Ctrl-B 3 times to exit console

RPi: BOOTLOADER release VERSION:8ba17717 DATE: 2023/01/11 TIME: 17:40:52
BOOTMODE: 0x06 partition 0 build-ts BUILD_TIMESTAMP=1673458852 serial c3656a7d boardrev d03114 stc 423721
PM_RSTS: 0x00001000
part 00000000 reset_info 00000000
uSD voltage 3.3V
Initialising SDRAM 'Micron' 32Gb x2 total-size: 64 Gbit 3200
DDR 3200 1 0 64 152

XHCI-STOP
xHC ver: 256 HCS: 05000420 fc000031 00e70004 HCC: 002841eb
```

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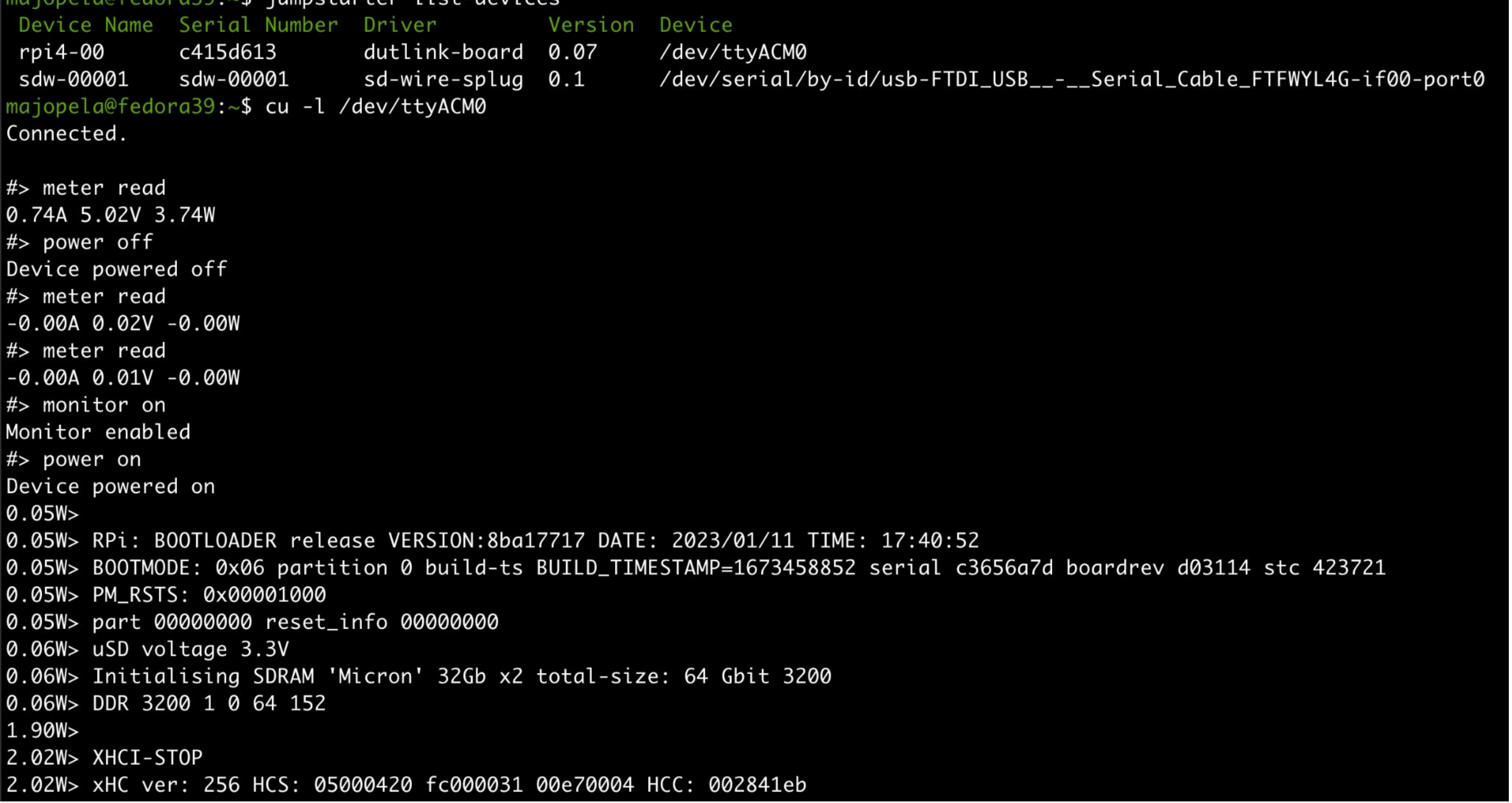

```
majopela@fedora39:~$ jumpstarter list-devices
 Device Name  Serial Number  Driver          Version  Device
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 sdw-00001    sdw-00001      sd-wire-splug   0.1      /dev/serial/by-id/usb-FTDI_USB__-__Serial_Cable_FTFWYL4G-if00-port0
majopela@fedora39:~$ cu -l /dev/ttyACM0
Connected.

#> meter read
0.74A 5.02V 3.74W
#> power off
Device powered off
#> meter read
-0.00A 0.02V -0.00W
#> meter read
-0.00A 0.01V -0.00W
#> monitor on
Monitor enabled
#> power on
Device powered on
0.05W>
0.05W> RPi: BOOTLOADER release VERSION:8ba17717 DATE: 2023/01/11 TIME: 17:40:52
0.05W> BOOTMODE: 0x06 partition 0 build-ts BUILD_TIMESTAMP=1673458852 serial c3656a7d boardrev d03114 stc 423721
0.05W> PM_RSTS: 0x00001000
0.05W> part 00000000 reset_info 00000000
0.06W> uSD voltage 3.3V
0.06W> Initialising SDRAM 'Micron' 32Gb x2 total-size: 64 Gbit 3200
0.06W> DDR 3200 1 0 64 152
1.90W>
2.02W> XHCI-STOP
2.02W> xHC ver: 256 HCS: 05000420 fc000031 00e70004 HCC: 002841eb
```

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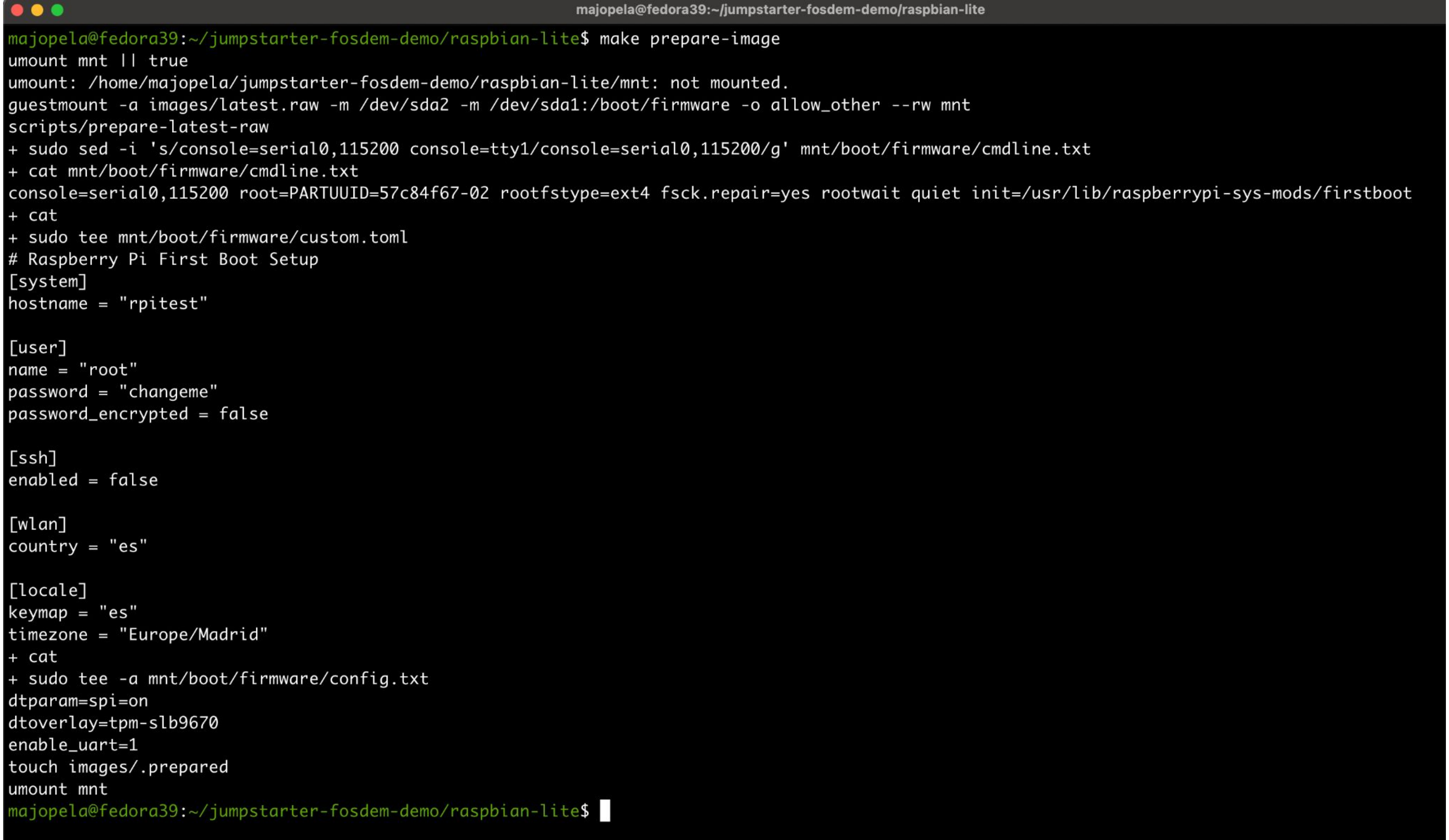


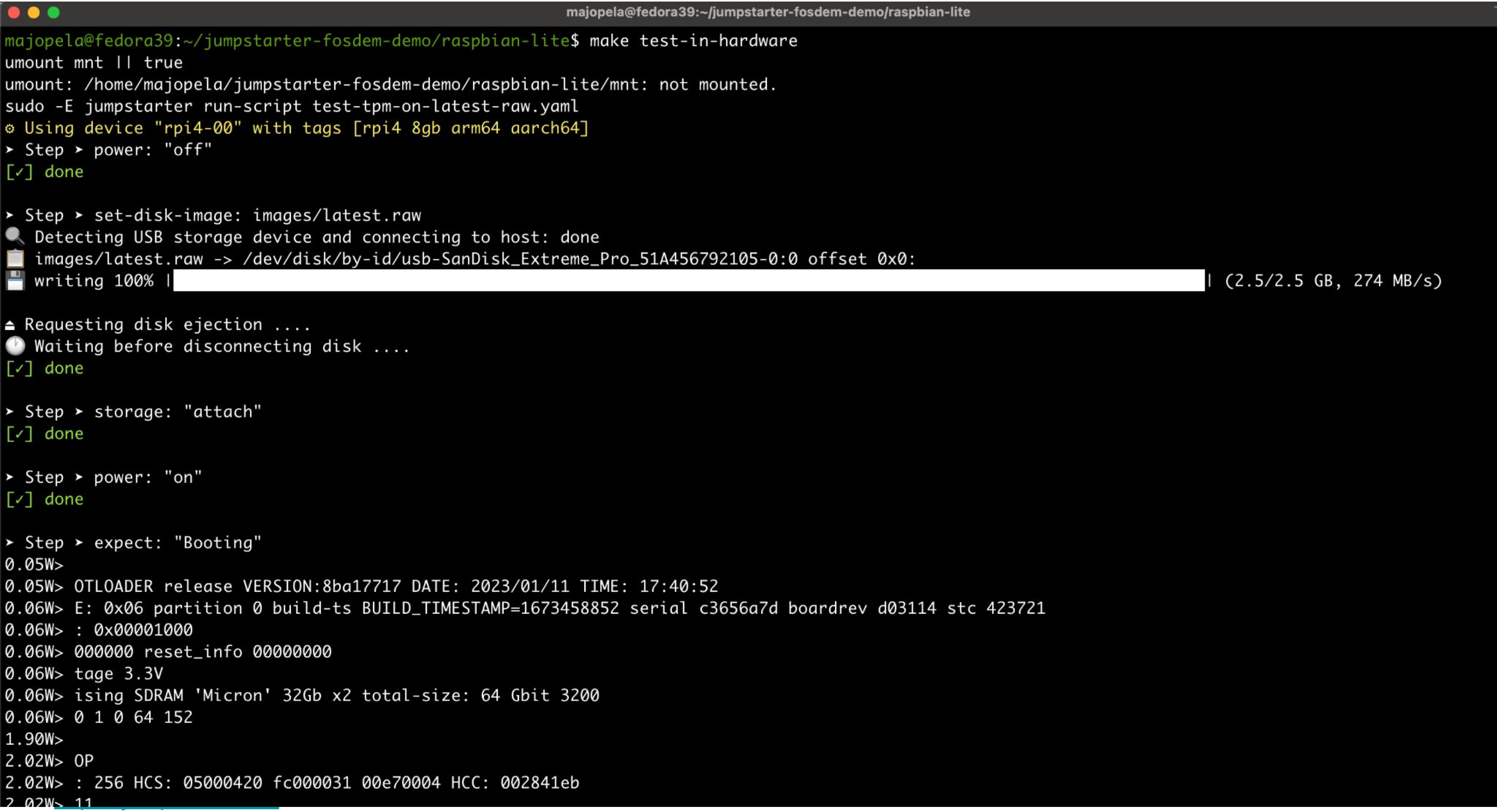
```
majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$ make prepare-image
umount mnt || true
umount: /home/majopela/jumpstarter-fosdem-demo/raspbian-lite/mnt: not mounted.
guestmount -a images/latest.raw -m /dev/sda2 -m /dev/sda1:/boot/firmware -o allow_other --rw mnt
scripts/prepare-latest-raw
+ sudo sed -i 's/console=serial0,115200 console=tty1/console=serial0,115200/g' mnt/boot/firmware/cmdline.txt
+ cat mnt/boot/firmware/cmdline.txt
console=serial0,115200 root=PARTUUID=57c84f67-02 rootfstype=ext4 fsck.repair=yes rootwait quiet init=/usr/lib/raspberrypi-sys-mods/firstboot
+ cat
+ sudo tee mnt/boot/firmware/custom.toml
# Raspberry Pi First Boot Setup
[system]
hostname = "rpitest"

[user]
name = "root"
password = "changeme"
password_encrypted = false

[ssh]
enabled = false

[wlan]
country = "es"

[locale]
keymap = "es"
timezone = "Europe/Madrid"
+ cat
+ sudo tee -a mnt/boot/firmware/config.txt
dtparam=spi=on
dtoverlay=tpm-slb9670
enable_uart=1
touch images/.prepared
umount mnt
majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$
```



majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite

```
majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$ make test-in-hardware
umount mnt || true
umount: /home/majopela/jumpstarter-fosdem-demo/raspbian-lite/mnt: not mounted.
sudo -E jumpstarter run-script test-tpm-on-latest-raw.yaml
⚙ Using device "rpi4-00" with tags [rpi4 8gb arm64 aarch64]
➤ Step ➤ power: "off"
[✓] done

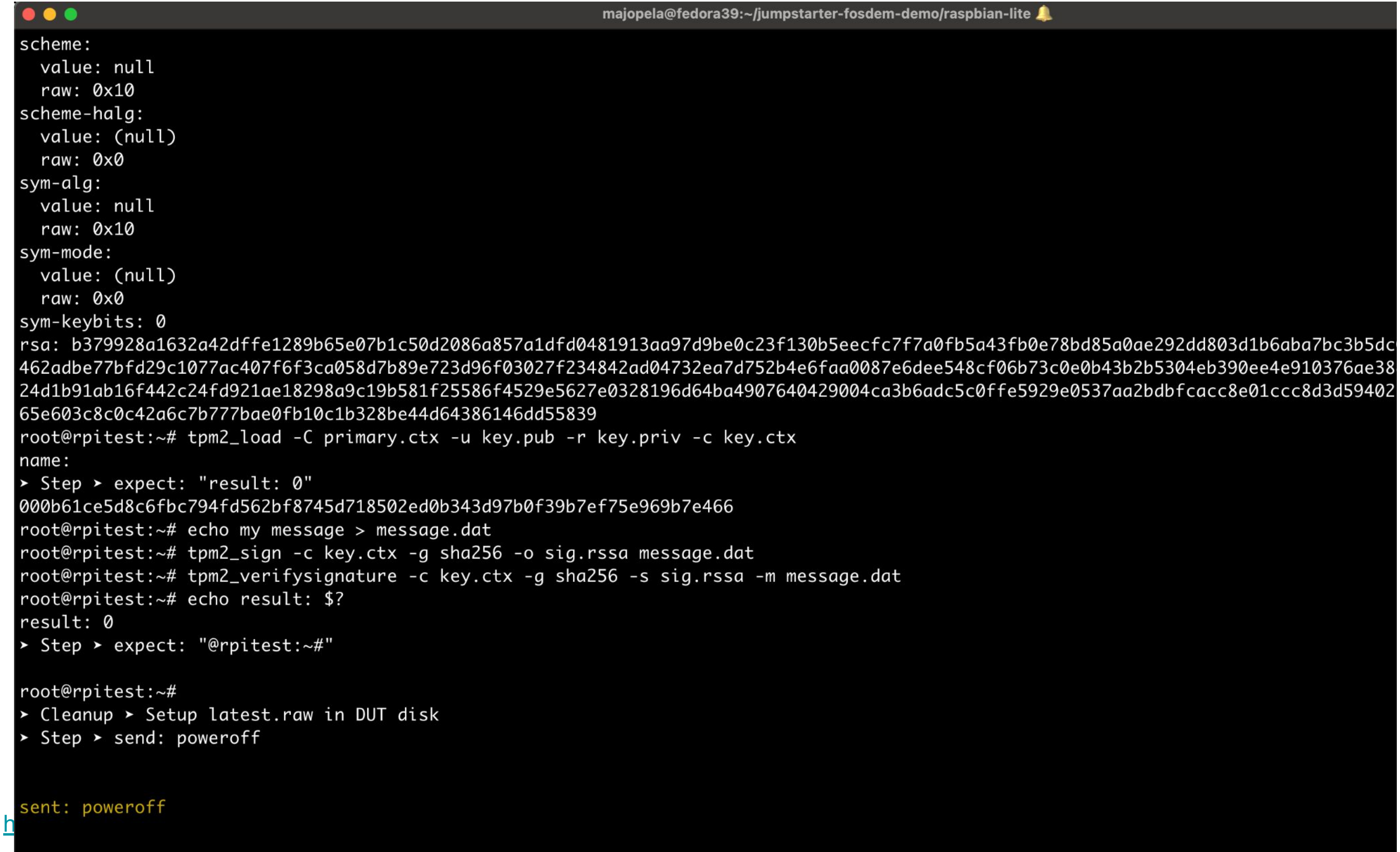
➤ Step ➤ set-disk-image: images/latest.raw
🔍 Detecting USB storage device and connecting to host: done
📋 images/latest.raw -> /dev/disk/by-id/usb-SanDisk_Extreme_Pro_51A456792105-0:0 offset 0x0:
💾 writing 100% |██████████████████████████████████████████████████| (2.5/2.5 GB, 274 MB/s)

⏏ Requesting disk ejection ....
🕐 Waiting before disconnecting disk ....
[✓] done

➤ Step ➤ storage: "attach"
[✓] done

➤ Step ➤ power: "on"
[✓] done

➤ Step ➤ expect: "Booting"
0.05W>
0.05W> OTLOADER release VERSION:8ba17717 DATE: 2023/01/11 TIME: 17:40:52
0.06W> E: 0x06 partition 0 build-ts BUILD_TIMESTAMP=1673458852 serial c3656a7d boardrev d03114 stc 423721
0.06W> : 0x00001000
0.06W> 000000 reset_info 00000000
0.06W> tage 3.3V
0.06W> ising SDRAM 'Micron' 32Gb x2 total-size: 64 Gbit 3200
0.06W> 0 1 0 64 152
1.90W>
2.02W> OP
2.02W> : 256 HCS: 05000420 fc000031 00e70004 HCC: 002841eb
2.02W> 11
```

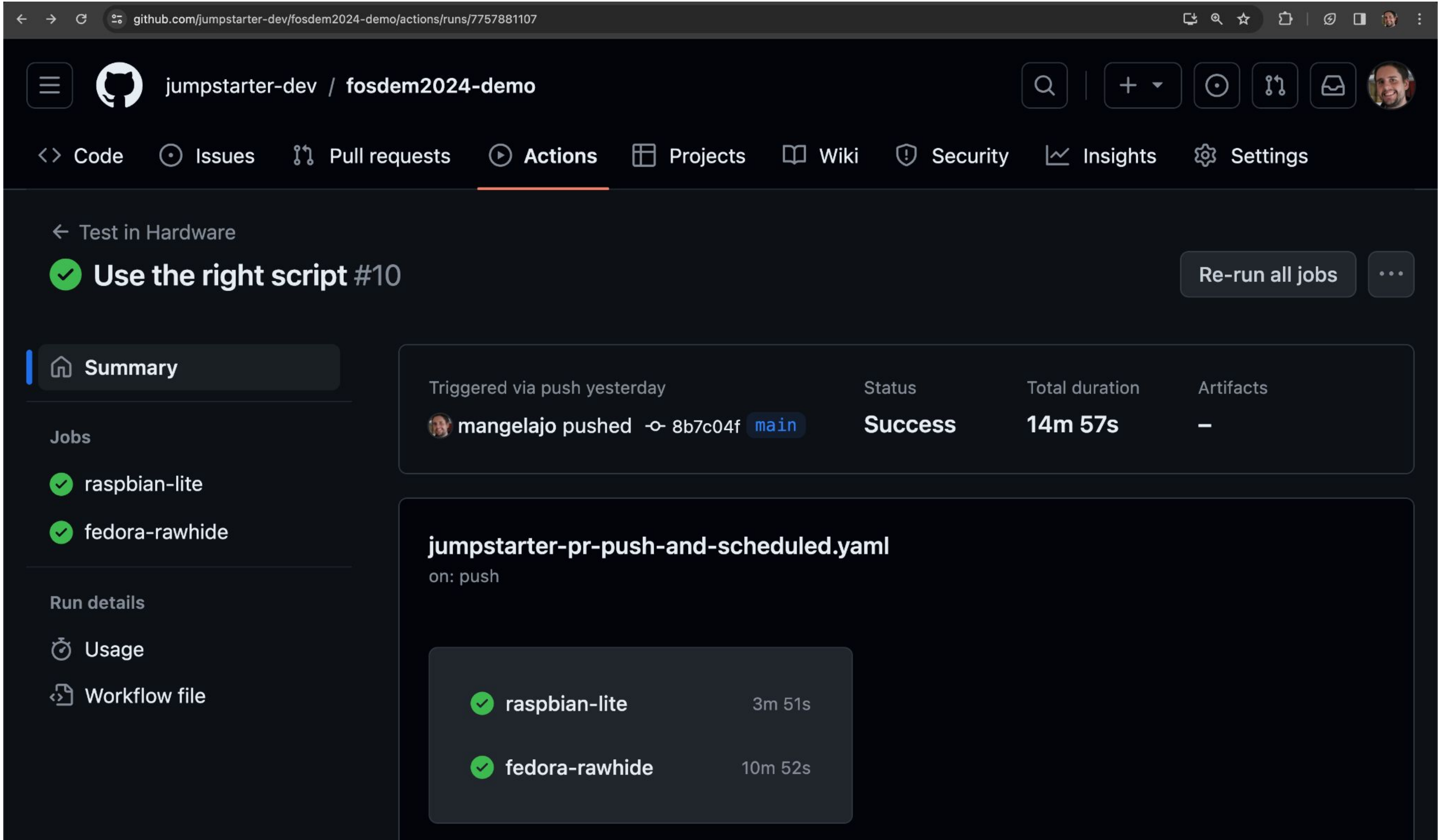


```
scheme:
  value: null
  raw: 0x10
scheme-halg:
  value: (null)
  raw: 0x0
sym-alg:
  value: null
  raw: 0x10
sym-mode:
  value: (null)
  raw: 0x0
sym-keybits: 0
rsa: b379928a1632a42dffe1289b65e07b1c50d2086a857a1dfd0481913aa97d9be0c23f130b5eecfc7f7a0fb5a43fb0e78bd85a0ae292dd803d1b6aba7bc3b5dc
462adbe77bfd29c1077ac407f6f3ca058d7b89e723d96f03027f234842ad04732ea7d752b4e6faa0087e6dee548cf06b73c0e0b43b2b5304eb390ee4e910376ae38
24d1b91ab16f442c24fd921ae18298a9c19b581f25586f4529e5627e0328196d64ba4907640429004ca3b6adc5c0ffe5929e0537aa2bdbfcacc8e01ccc8d3d59402
65e603c8c0c42a6c7b777bae0fb10c1b328be44d64386146dd55839
root@rpitest:~# tpm2_load -C primary.ctx -u key.pub -r key.priv -c key.ctx
name:
➤ Step ➤ expect: "result: 0"
000b61ce5d8c6fbc794fd562bf8745d718502ed0b343d97b0f39b7ef75e969b7e466
root@rpitest:~# echo my message > message.dat
root@rpitest:~# tpm2_sign -c key.ctx -g sha256 -o sig.rssa message.dat
root@rpitest:~# tpm2_verifysignature -c key.ctx -g sha256 -s sig.rssa -m message.dat
root@rpitest:~# echo result: $?
result: 0
➤ Step ➤ expect: "@rpitest:~#"

root@rpitest:~#
➤ Cleanup ➤ Setup latest.raw in DUT disk
➤ Step ➤ send: poweroff


sent: poweroff
```

h



Use the right script #10

Triggered via push yesterday
mangelajo pushed 8b7c04f main

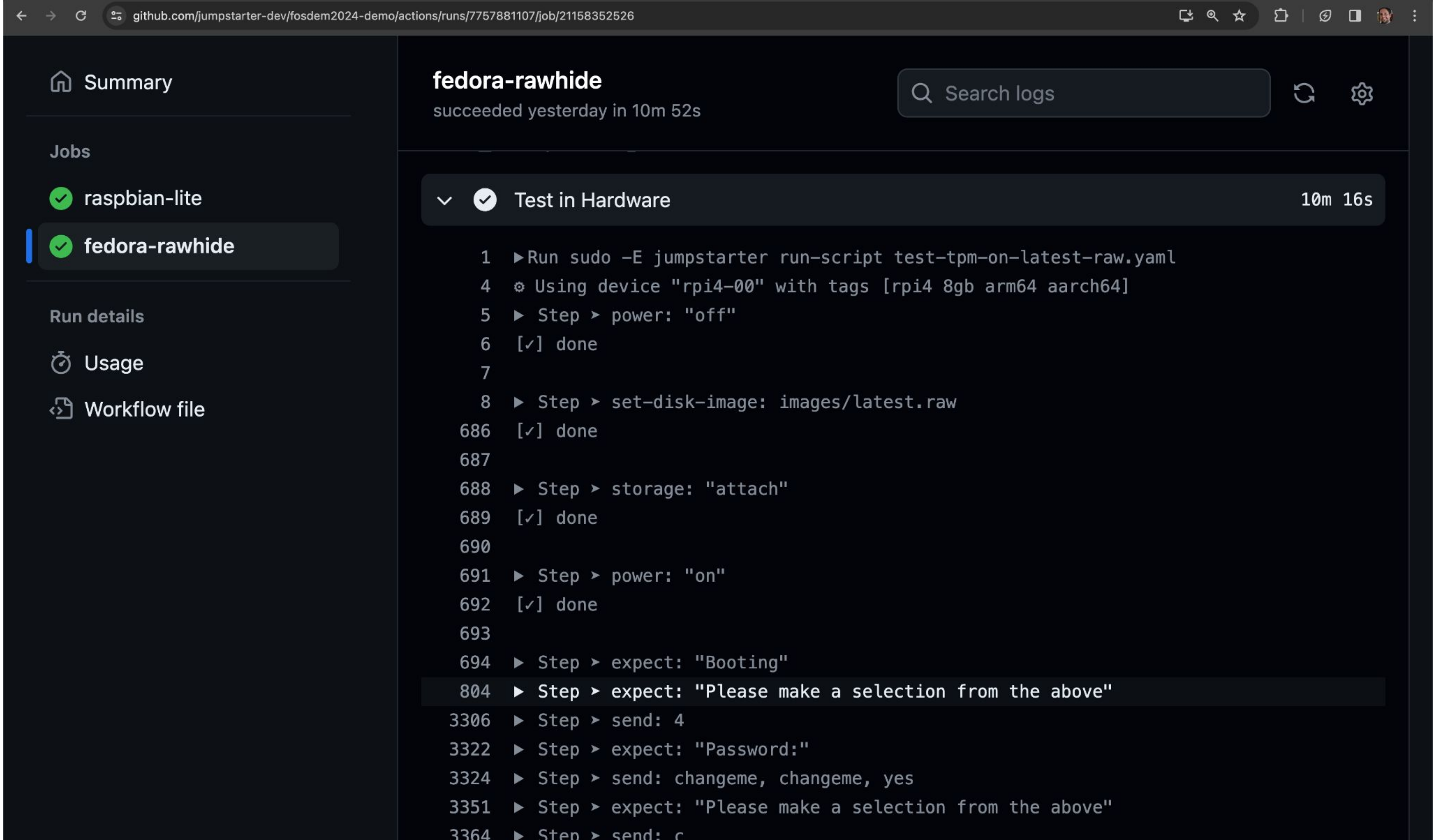
Status
Success

Total duration
14m 57s

Artifacts
–

jumpstarter-pr-push-and-scheduled.yaml
on: push

✓ raspbian-lite	3m 51s
✓ fedora-rawhide	10m 52s

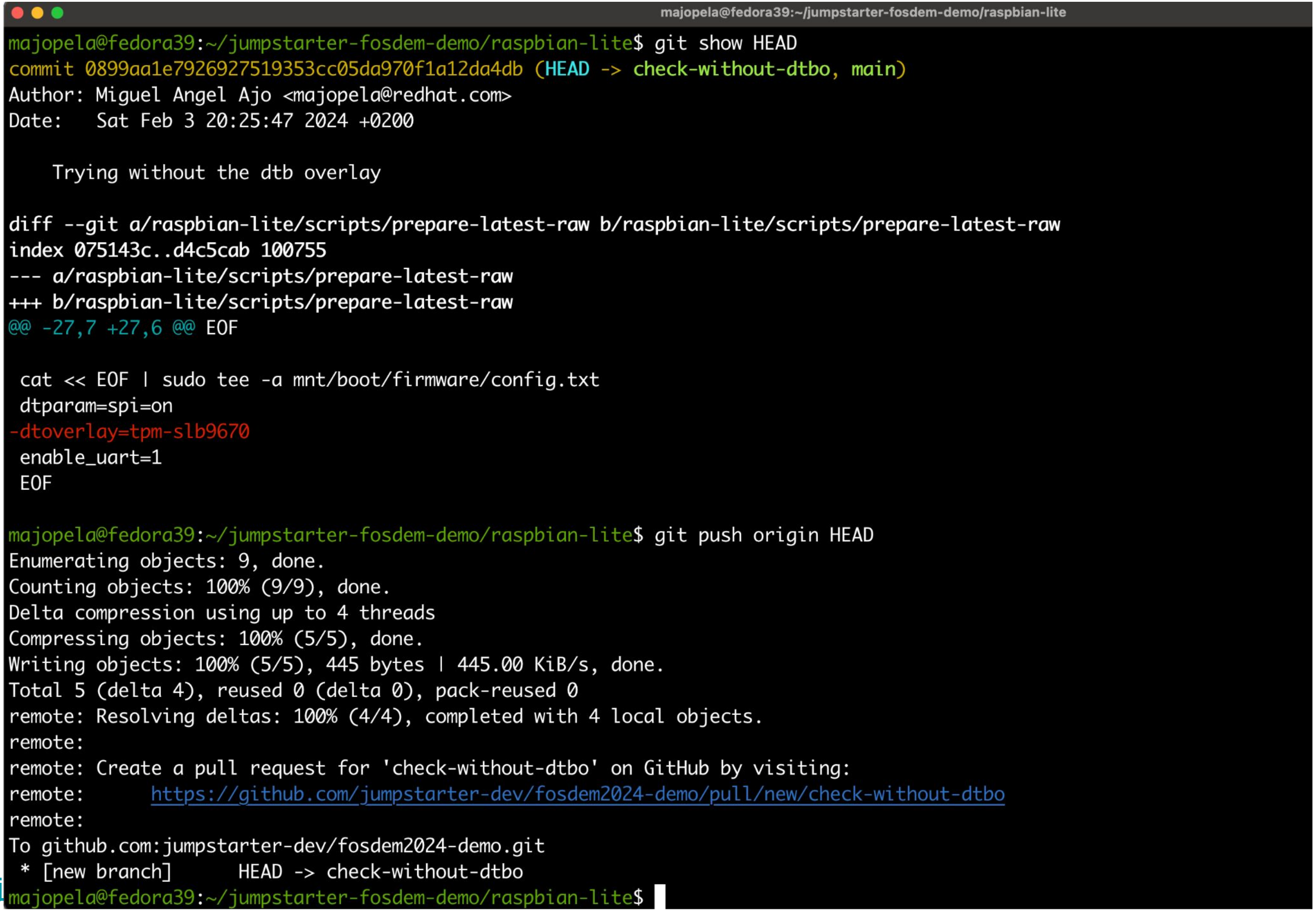

github.com/jumpstarter-dev/fosdem2024-demo/actions/runs/7757881107/job/21158352526
Summary
Jobs
raspbian-lite
fedora-rawhide
Run details
Usage
Workflow file
Search logs

fedora-rawhide

succeeded yesterday in 10m 52s

Test in Hardware 10m 16s

```
   1 ▶Run sudo -E jumpstarter run-script test-tpm-on-latest-raw.yaml
   4 ⚙ Using device "rpi4-00" with tags [rpi4 8gb arm64 aarch64]
   5 ▶ Step ➤ power: "off"
   6 [✓] done
   7
   8 ▶ Step ➤ set-disk-image: images/latest.raw
 686 [✓] done
 687
 688 ▶ Step ➤ storage: "attach"
 689 [✓] done
 690
 691 ▶ Step ➤ power: "on"
 692 [✓] done
 693
 694 ▶ Step ➤ expect: "Booting"
 804 ▶ Step ➤ expect: "Please make a selection from the above"
3306 ▶ Step ➤ send: 4
3322 ▶ Step ➤ expect: "Password:"
3324 ▶ Step ➤ send: changeme, changeme, yes
3351 ▶ Step ➤ expect: "Please make a selection from the above"
3364 ▶ Step ➤ send: c
```



```
majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$ git show HEAD
commit 0899aa1e7926927519353cc05da970f1a12da4db (HEAD -> check-without-dtbo, main)
Author: Miguel Angel Ajo <majopela@redhat.com>
Date:   Sat Feb 3 20:25:47 2024 +0200

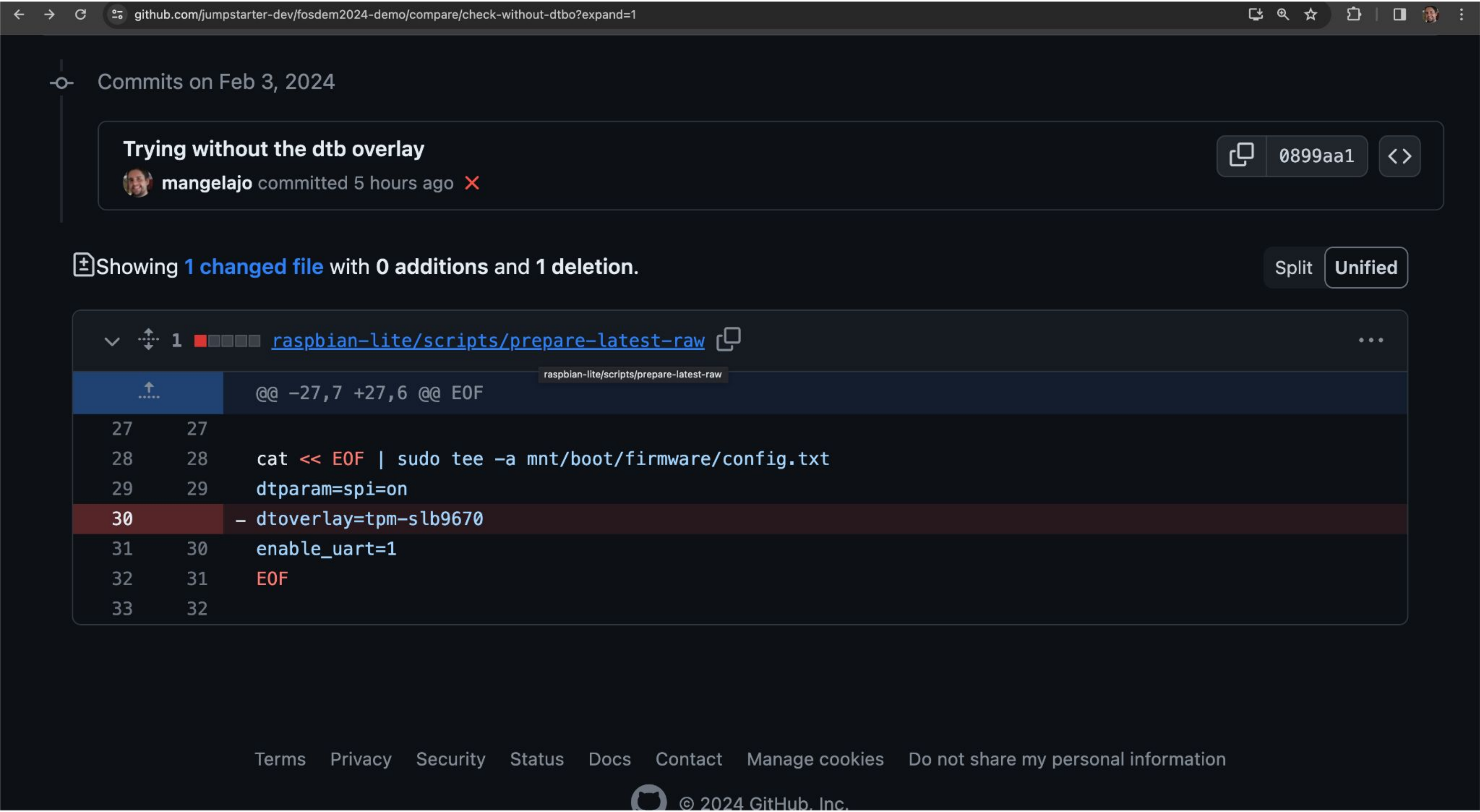
    Trying without the dtb overlay

diff --git a/raspbian-lite/scripts/prepare-latest-raw b/raspbian-lite/scripts/prepare-latest-raw
index 075143c..d4c5cab 100755
--- a/raspbian-lite/scripts/prepare-latest-raw
+++ b/raspbian-lite/scripts/prepare-latest-raw
@@ -27,7 +27,6 @@ EOF

 cat << EOF | sudo tee -a mnt/boot/firmware/config.txt
 dtparam=spi=on
-dtoverlay=tpm-slb9670
 enable_uart=1
 EOF

majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$ git push origin HEAD
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 4 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 445 bytes | 445.00 KiB/s, done.
Total 5 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
remote:
remote: Create a pull request for 'check-without-dtbo' on GitHub by visiting:
remote:      https://github.com/jumpstarter-dev/fosdem2024-demo/pull/new/check-without-dtbo
remote:
To github.com:jumpstarter-dev/fosdem2024-demo.git
 * [new branch]      HEAD -> check-without-dtbo
majopela@fedora39:~/jumpstarter-fosdem-demo/raspbian-lite$
```

https://j



github.com/jumpstarter-dev/fosdem2024-demo/compare/check-without-dtbo?expand=1

Commits on Feb 3, 2024

Trying without the dtb overlay

mangelajo committed 5 hours ago ✕

0899aa1

Showing 1 changed file with **0 additions** and **1 deletion.**

1 raspbian-lite/scripts/prepare-latest-raw

```
@@ -27,7 +27,6 @@ EOF

  cat << EOF | sudo tee -a mnt/boot/firmware/config.txt
  dtparam=spi=on
- dtoverlay=tpm-slb9670
  enable_uart=1
  EOF

```

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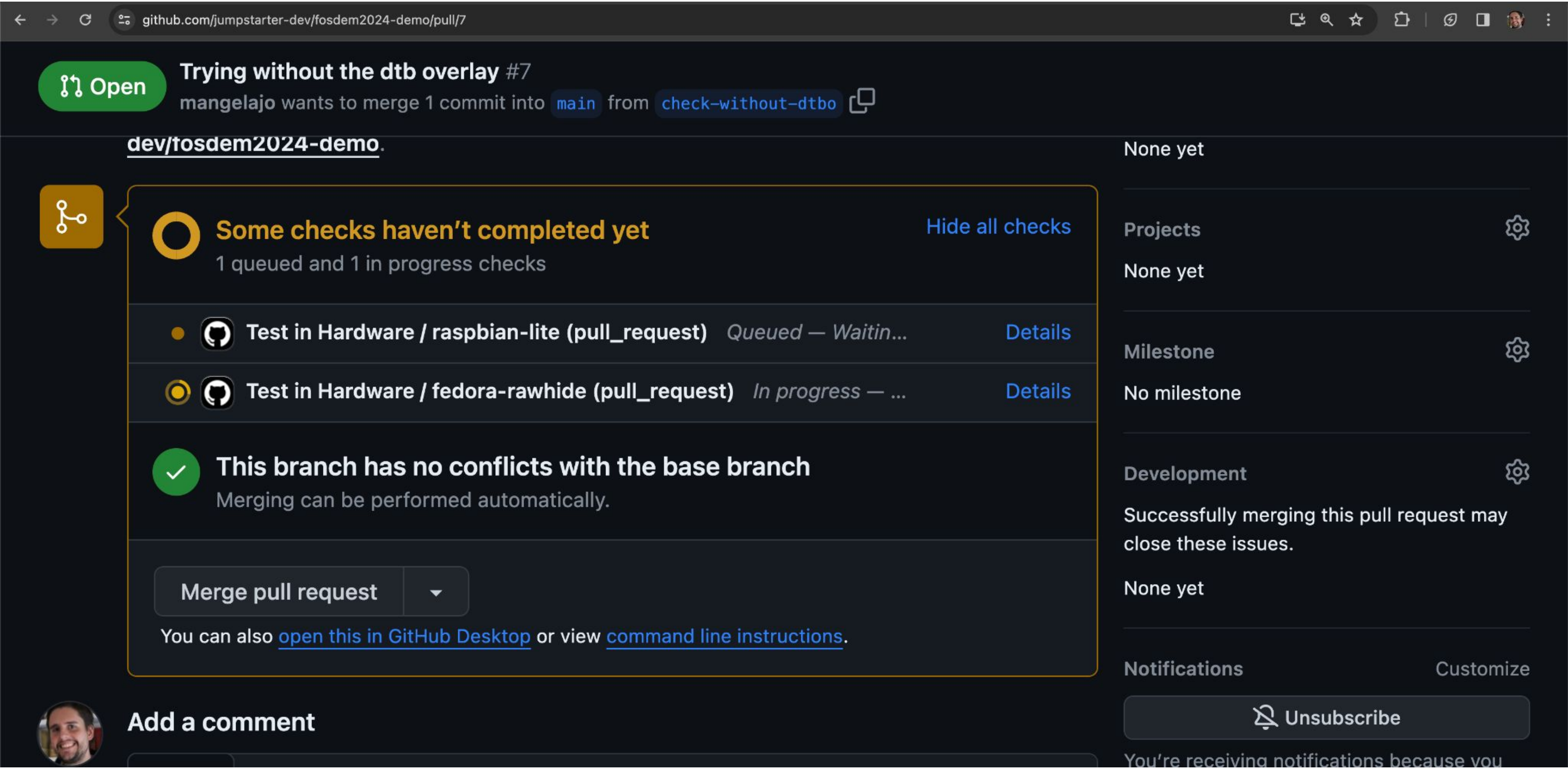


github.com/jumpstarter-dev/fosdem2024-demo/pull/7

Open

Trying without the dtb overlay #7

mangelajo wants to merge 1 commit into `main` from `check-without-dtbo`

dev/fosdem2024-demo.

Some checks haven't completed yet

1 queued and 1 in progress checks

Hide all checks

● Test in Hardware / raspbian-lite (pull_request) *Queued — Waitin...* Details

Test in Hardware / fedora-rawhide (pull_request) *In progress — ...* Details

✓ **This branch has no conflicts with the base branch**

Merging can be performed automatically.

Merge pull request

You can also open this in GitHub Desktop or view command line instructions.

Add a comment

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

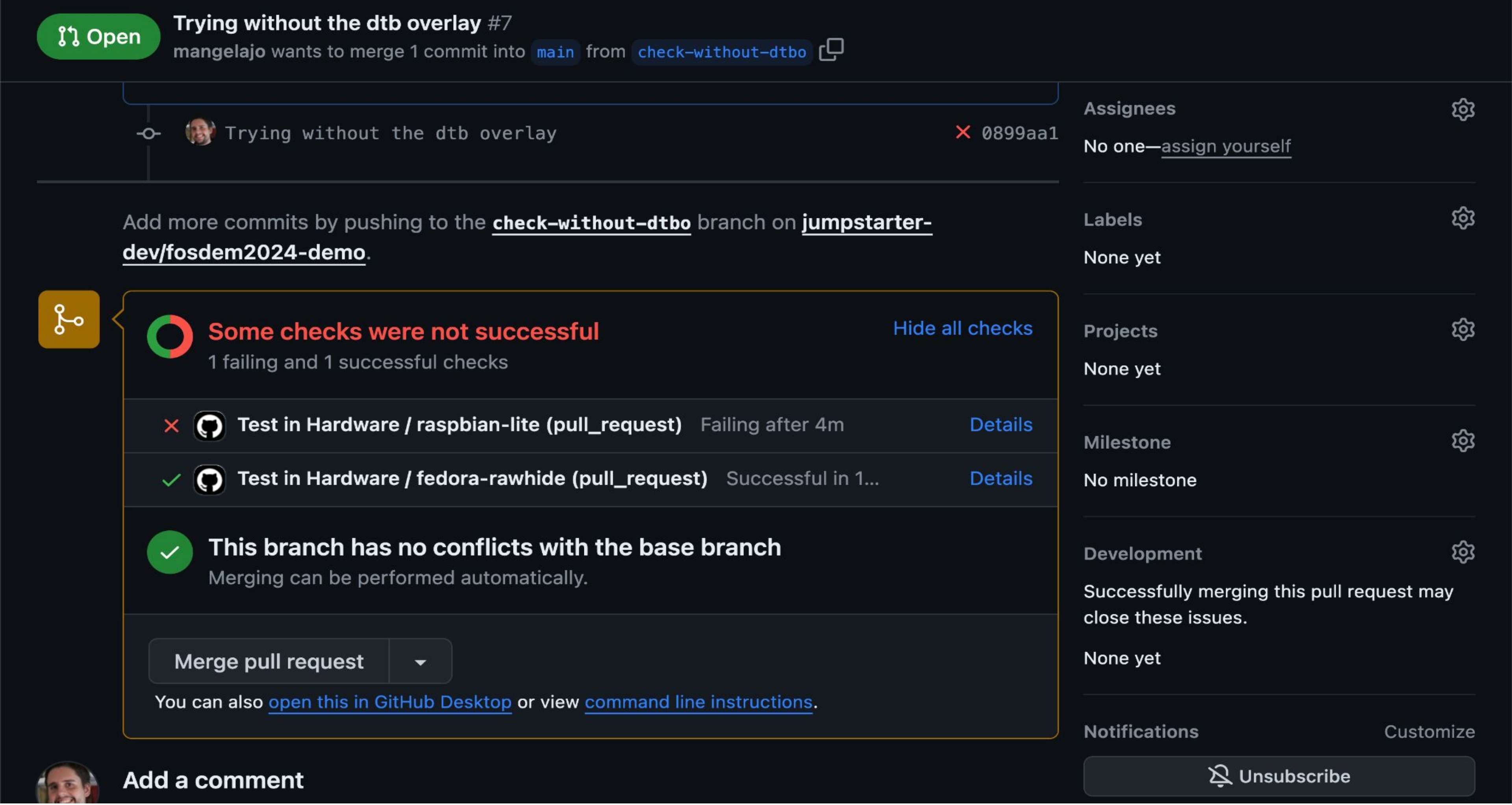
None yet

Notifications Customize

Unsubscribe

You're receiving notifications because you

https://jumpstarter.dev



Open **Trying without the dtb overlay** #7

mangelajo wants to merge 1 commit into `main` from `check-without-dtbo`

`Trying without the dtb overlay` ✗ `0899aa1`

Add more commits by pushing to the **check-without-dtbo** branch on **jumpstarter-dev/fosdem2024-demo**.

Some checks were not successful
1 failing and 1 successful checks

Hide all checks

✗ **Test in Hardware / raspbian-lite (pull_request)** Failing after 4m Details

✓ **Test in Hardware / fedora-rawhide (pull_request)** Successful in 1... Details

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request ▾

You can also open this in GitHub Desktop or view command line instructions.

Add a comment

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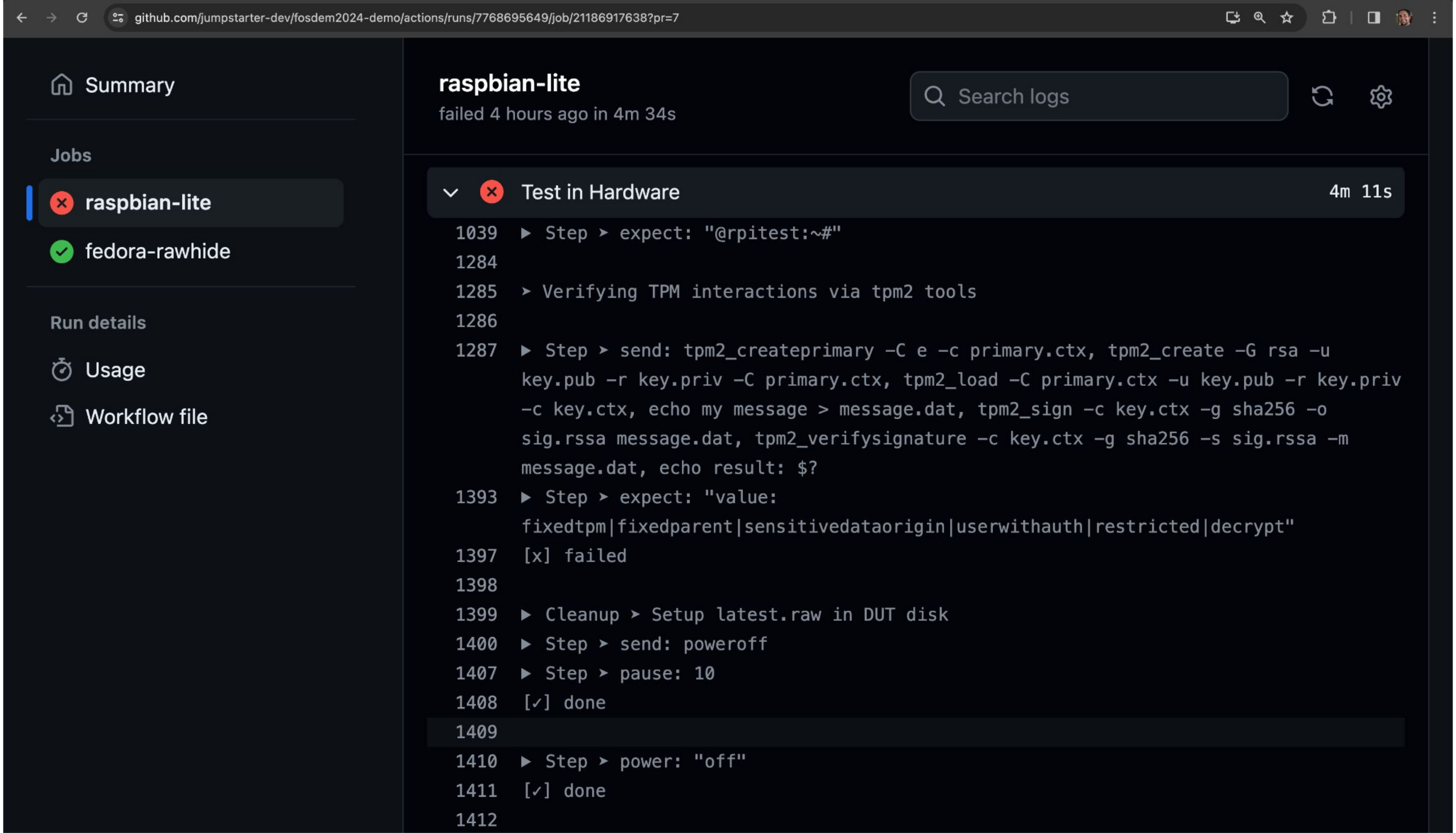
github.com/jumpstarter-dev/fosdem2024-demo/actions/runs/7768695649/job/21186917638?pr=7
Summary
Jobs
raspbian-lite
fedora-rawhide
Run details
Usage
Workflow file
Search logs

raspbian-lite

failed 4 hours ago in 4m 34s

Test in Hardware 4m 11s

```
▶ Step ➤ expect: "@rpitest:~#"

➤ Verifying TPM interactions via tpm2 tools

▶ Step ➤ send: tpm2_createprimary -C e -c primary.ctx, tpm2_create -G rsa -u
key.pub -r key.priv -C primary.ctx, tpm2_load -C primary.ctx -u key.pub -r key.priv
-c key.ctx, echo my message > message.dat, tpm2_sign -c key.ctx -g sha256 -o
sig.rssa message.dat, tpm2_verifysignature -c key.ctx -g sha256 -s sig.rssa -m
message.dat, echo result: $?
▶ Step ➤ expect: "value:
fixedtpm|fixedparent|sensitivedataorigin|userwithauth|restricted|decrypt"
[x] failed

▶ Cleanup ➤ Setup latest.raw in DUT disk
▶ Step ➤ send: poweroff
▶ Step ➤ pause: 10
[✓] done

▶ Step ➤ power: "off"
[✓] done

```

Last thoughts

- Other projects that are doing similar things
    - Let us know!
    - Let’s work together.

Q&A

jumpstarter.dev

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