

CircuitPython Weekly Meeting for February 26, 2024

Welcome to the CircuitPython Weekly meeting notes! Feel free to add your Hug Reports and Status Updates before the meeting, alphabetically by your username. During the meeting, we go through them in order. If you can't make the meeting and would still like to participate, add your notes with a "(missing meeting)" after your username and we'll read them off for you.

Add any longer-form discussion topics or general questions you have to the "In the weeds" section.

Thanks! We hope to see you in the meeting!

Liz is hosting.

Video is available [on YouTube]().

Join here for the chat all week: <http://adafru.it/discord>.

The CircuitPython Weekly Meeting normally is held at 2pm US ET/11am PT on Mondays. Check the #circuitpython channel on Discord for notices of change in time and links to past meetings. Meeting times are also available in [iCal format](<https://raw.githubusercontent.com/adafruit/adafruit-circuitpython-weekly-meeting/master/meeting.ical>) for use with standard calendar applications and can also be viewed [in your browser](<https://open-web-calendar.hosted.quelltext.eu/calendar.html?url=https%3A%2F%2Fraw.githubusercontent.com%2Fadafruit%2Fadafruit-circuitpython-weekly-meeting%2Fmain%2Fmeeting.ical&title=CircuitPython%20Meeting%20Schedule&tab=agenda&tabs=month&tabs=agenda>).

If you want to be able to participate in the meeting by speaking, you will need to be added to the @circuitpythonistas role on Discord. Please ask any of the moderators or admins to add you if you'd like to join.

CircuitPython development is sponsored by Adafruit. Please support them by purchasing hardware from <https://adafruit.com>.

Reminders: Podcast available on most services. Let us know if we're missing some. The canonical URL for the podcast version is https://adafruit-podcasts.s3.amazonaws.com/circuitpython_weekly_meeting/audio-podcast.xml which you may be able to enter directly into compatible podcast apps.

02:39 ## Community News

02:45 ### MicroPython v1.22.2 Released

MicroPython was just updated. Changes are described as a "patch release for rp2 DMA, UART and BLE, esp32 BLE, renesas-ra I2C" - [GitHub](#).

02:57 ### CircuitPython 9.0.0-beta.2 Released with Urge to Update for MEMENTO

CircuitPython 9.0.0-beta.2, a beta release for 9.0.0 is the new unstable release. This release has known bugs that will be addressed before 9.0.0 final - [Adafruit Blog](#) and [Release Notes](#).

03:16 ### Project of the Week: Making a MIDI Kalimba with Raspberry Pi Pico and CircuitPython

Converting a Kalimba instrument to MIDI use with capacitive sensing, Raspberry Pi Pico and CircuitPython - [hackster.io Project](#), [hackster.io News](#) and [YouTube](#).

03:33 ### Newsletter Details

The Python on Microcontrollers Weekly Newsletter is a CircuitPython-community-run newsletter emailed every Monday. The complete archives are [\[here\]\(https://www.adafruitdaily.com/category/circuitpython/\)](https://www.adafruitdaily.com/category/circuitpython/). It highlights the latest Python on hardware related news from around the web including CircuitPython, Python and MicroPython developments.

To contribute your own news or project, edit next week's draft [on GitHub](<https://github.com/adafruit/circuitpython-weekly-newsletter/tree/gh-pages/drafts>) and [submit a pull request](<https://help.github.com/articles/editing-files-in-your-repository/>) with the changes. You may also or email cpnews@adafruit.com, or tag a post with #CircuitPython on Mastodon, Bluesky, or X (formerly known as Twitter),.

04:08 ## State of CircuitPython, Libraries and Blinka

****This report contains information from the previous seven days. Any changes (PRs merged, etc.) made today are not included in this report.****

04:23 ### Overall

* 32 pull requests merged

- * 20 authors - hexthat, BlitzCityDIY, DavidMenting, jepler, justmobilize, weblate, noqman, deshipu, tannewt, dhalbert, FoamyGuy, reza-n, michalpokusa, Kry-Vosa, prcutler, radiac, mariopesch, romkey, wtuemura, kbsriram
- * 8 reviewers - brentu, BlitzCityDIY, jepler, TheKitty, tannewt, tekktrik, dhalbert, FoamyGuy
- * 29 closed issues by 10 people, 22 opened by 18 people

04:41 ### Core

- * 13 pull requests merged
 - * 11 authors - hexthat, BlitzCityDIY, justmobilize, weblate, noqman, mariopesch, romkey, deshipu, tannewt, dhalbert, wtuemura
 - * 4 reviewers - tannewt, dhalbert, jepler, BlitzCityDIY
- * 19 open pull requests
 - * <https://github.com/adafruit/circuitpython/pull/6555> (Open 601 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/7440> (Open 411 days)
 - * <https://github.com/adafruit/circuitpython/pull/7618> (Open 371 days)
 - * <https://github.com/adafruit/circuitpython/pull/7675> (Open 359 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/7811> (Open 333 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/7997> (Open 283 days)
 - * <https://github.com/adafruit/circuitpython/pull/8033> (Open 276 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8100> (Open 249 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8233> (Open 211 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8349> (Open 179 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8457> (Open 146 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8647> (Open 96 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8713> (Open 76 days)
 - * <https://github.com/adafruit/circuitpython/pull/8796> (Open 43 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8798> (Open 42 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8816> (Open 36 days)
 - * <https://github.com/adafruit/circuitpython/pull/8855> (Open 28 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8954> (Open 5 days) (draft)
 - * <https://github.com/adafruit/circuitpython/pull/8976> (Open 2 days)
- * 14 closed issues by 6 people, 14 opened by 11 people
- * 669 open issues
 - * <https://github.com/adafruit/circuitpython/issues>
- * 8 active milestones
 - * 10.0.0: 2 open issues
 - * 8.2.x: 0 open issues
 - * 9.0.0: 7 open issues
 - * 9.x.x: 17 open issues
- * Libraries: 25 open issues
- * Long term: 589 open issues
- * Support: 14 open issues
- * Third-party: 11 open issues
- * 5 issues not assigned a milestone [all now triaged]

06:31 ### Libraries

- * 19 pull requests merged
 - * 11 authors - michalpokusa, **DavidMenting**, **Kry-Vosa**, prcutler, radiac, jepler, justmobilize, FoamyGuy, dhalbert, **reza-n**, kbsriram
 - * 7 reviewers - brentu, FoamyGuy, TheKitty, tannewt, tekktrik, dhalbert, jepler
 - * Merged pull requests:
 - * https://github.com/adafruit/Adafruit_CircuitPython_IRRemote/pull/67 (Days open: 114)
 - * https://github.com/adafruit/Adafruit_CircuitPython_SPD1656/pull/7 (Days open: 110)
 - * https://github.com/adafruit/Adafruit_CircuitPython_ConnectionManager/pull/1 (Days open: 60)
 - * https://github.com/adafruit/Adafruit_CircuitPython_RGB_Display/pull/119 (Days open: 55)
 - * https://github.com/adafruit/Adafruit_CircuitPython_MacroPad/pull/54 (Days open: 9)
 - * https://github.com/adafruit/Adafruit_CircuitPython_IterTools/pull/20 (Days open: 4)
 - * https://github.com/adafruit/Adafruit_CircuitPython_HTTPServer/pull/84 (Days open: 4)
 - * https://github.com/adafruit/Adafruit_CircuitPython_PyCamera/pull/28 (Days open: 2)
 - * https://github.com/adafruit/Adafruit_CircuitPython_WM8960/pull/1 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_BitmapSaver/pull/34 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_ConnectionManager/pull/2 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_BLE_Eddystone/pull/23 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_PortalBase/pull/100 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_ESP32SPI/pull/188 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_IterTools/pull/23 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_Bundle/pull/454 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_Bundle/pull/453 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_PyCamera/pull/30 (Days open: 1)
 - * https://github.com/adafruit/Adafruit_CircuitPython_PyCamera/pull/29 (Days open: 1)
- * 48 open pull requests (Oldest: 557, Newest: 1)
- * 14 closed issues by 6 people, 6 opened by 5 people
- * 737 open issues
- * 19 good first issues
- * <https://circuitpython.org/contributing>

Library PyPI Weekly Download Stats

- * **Total Library Stats**
 - * 116563 PyPI downloads over 325 libraries
- * **Top 10 Libraries by PyPI Downloads**
 - * Adafruit CircuitPython BusDevice (adafruit-circuitpython-busdevice): 8527
 - * Adafruit CircuitPython Requests (adafruit-circuitpython-requests): 8165
 - * Adafruit CircuitPython Register (adafruit-circuitpython-register): 2116
 - * Adafruit CircuitPython framebuffer (adafruit-circuitpython-framebuf): 1424

- * Adafruit CircuitPython RGB Display (adafruit-circuitpython-rgb-display): 1371
- * Adafruit CircuitPython MiniMQTT (adafruit-circuitpython-minimqtt): 1162
- * Adafruit CircuitPython ADS1x15 (adafruit-circuitpython-ads1x15): 1146
- * Adafruit CircuitPython Pixelbuf (adafruit-circuitpython-pixelbuf): 1022
- * Adafruit CircuitPython NeoPixel (adafruit-circuitpython-neopixel): 999
- * Adafruit CircuitPython Motor (adafruit-circuitpython-motor): 986

Library updates in the last seven days:

* **New Libraries**

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[adafruit/Adafruit_CircuitPython_ConnectionManager](https://github.com/adafruit/Adafruit_CircuitPython_ConnectionManager)

* **Updated Libraries**

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[adafruit/Adafruit_CircuitPython_MacroPad](https://github.com/adafruit/Adafruit_CircuitPython_MacroPad)

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[adafruit/Adafruit_CircuitPython_PyCamera](https://github.com/adafruit/Adafruit_CircuitPython_PyCamera)

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[adafruit/Adafruit_CircuitPython_IterTools](https://github.com/adafruit/Adafruit_CircuitPython_IterTools)

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[adafruit/Adafruit_CircuitPython_MiniMQTT](https://github.com/adafruit/Adafruit_CircuitPython_MiniMQTT)

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[adafruit/Adafruit_CircuitPython_HTTPServer](https://github.com/adafruit/Adafruit_CircuitPython_HTTPServer)

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[furbrain/CircuitPython_seed_xiao_nRF52840](https://github.com/furbrain/CircuitPython_seed_xiao_nRF52840)

10:32 ### Blinka

* 0 pull requests merged

* 0 authors -

* 0 reviewers -

* 6 open pull requests

* https://github.com/adafruit/Adafruit_Blinka_bleio/pull/40 (Open 871 days)

* https://github.com/adafruit/Adafruit_Blinka_bleio/pull/65 (Open 89 days)

* https://github.com/adafruit/Adafruit_Blinka/pull/749 (Open 82 days)

* https://github.com/adafruit/Adafruit_Blinka/pull/766 (Open 59 days) (draft)

* https://github.com/adafruit/Adafruit_Python_PlatformDetect/pull/335 (Open 59 days) (draft)

* https://github.com/adafruit/Adafruit_Blinka/pull/773 (Open 49 days)

* 1 closed issues by 1 people, 2 opened by 2 people

* 86 open issues

* https://github.com/adafruit/Adafruit_Blinka/issues

* PyPI downloads in the last week: 13166

* Piwheels Downloads in the last month: 11340

Number of supported boards: 129

11:20 ## Hug reports

11:37 @Liz (hosting)

- @danh for excellent release notes for CP 9 beta 2
- @melissa for fixing the web workflow code editor and @tannewt for his fixes to web workflow
- Group hug

11:52 @carter (text only)

- @danh for forum help - finding a missing () and troubleshooting a "feature" with tiny code reader firmware.

12:06 @danh

- @tlyu and @eightycc for working on fixing a USB CDC issue on RP2040 on macOS.
- @Justin for ConnectionManager and all the revamping and regularization of socket use across libraries.

12:41 @DJDevon3 (text only)

- @Tannewt for an informative deep dive on host usb and streaming bitrates.
- @DJEcken (Pedro Ruiz) for reviewing and approving 2 CAD Parts submissions.

12:54 @foamyguy

- @tannewt for looking into USBHost issues during deep dive
- @jepler for a change allowing usage of the USB Host Power pin with digitalio
- @danh for looking into an issue with github permission settings for a new library repo
- @Justin for working on ConnectionManager and associated changes to the libraries that will use it
- Group Hug

13:46 @eightycc

- @argonblue for diligent work on #8824, a hard fault affecting MacOS and RP2040 when disconnecting a USB CDC ACM endpoint.
- @danh for help with USB tracing

14:22 @jerryn

- @jepler and all responsible for the excellent work on the pycamera and esp32camera support.

- Group hug

14:46 @Justin (text only)

- @tannewt for pumping through my PRs
- @danh for getting ConnectionManager on RTD and in the bundle
- @jepler for all their comments that help steer me in the right direction

15:01 @makermelissa

- Group Hug

15:13 @tannewt

- @tyeth, snakeymakercat, djdevon3, anecddata, elpekenin, Justin, deshipu for helping folks in #help-with-circuitpython

15:37 @tekktrik (not present)

- @foamyguy for the circup instruction fixes in a bunch of READMEs
- @danh for trying out my circfirm CLI tool, thanks for helping to iron out some bugs and usability issues
- Group hug!

15:56 ## Status Updates

16:21 @Liz (hosting)

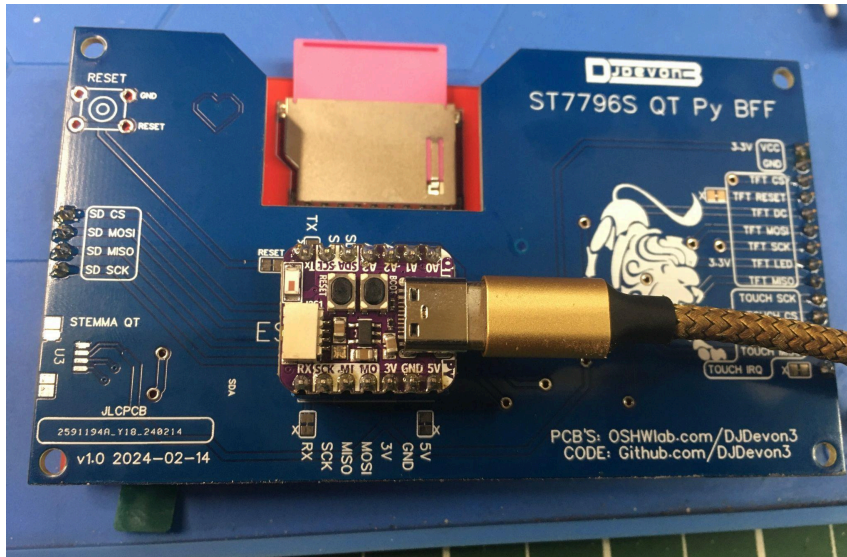
- I've missed the past two meetings because I was trying to get guides done in time for the AAE deadlines. I was able to get the cat thermal printer working properly with the MEMENTO and documented it in a guide that went live last week. I am really excited about this project and am thrilled that I was finally able to get it working thanks to some added delays in the library.
- I've also been working on a guide for the new ItsyBitsy ESP32 board. I added a board def to CircuitPython and was able to use it with web workflow.

16:57 @danh

- Publicized MEMENTO update requirement in multiple places.
- Will document and file a new Apple Feedback about the new Sonoma problem of very slow writes for drives <1GB (40x slower!) to add pressure along with the one @eightycc filed.
- Pushed two 9.0.0 issues forward as not urgent (ten remaining after three new ones added).
- Investigating a storage leak on nRF.
- Would like to test some CPX projects with 9.0.0 to see if they are more prone to MemoryErrors. Anyone interested in this?

19:21 @DJDevon3 (text only)

- Received my ST7796S (Featherwing & QT Py BFF) adapter PCB's. Went on Show & Tell with them. To my knowledge there isn't a 480x320 TFT BFF like the TFT Featherwing. So I made one and it works great. There are no free pins left on the BFF except RX & TX. The touch display and SD card work.



- Submitted a [2.5mm matrix panel model](#) to Adafruit_CAD_Parts repo.
- Currently working on a model for the 5mm pitch matrix panel. Making models available to the public is important for those who want to design their own brackets, stands, or enclosures.

20:04 @foamyguy

- Submitted PR for initial support of overlay feature in PyCamer library and examples that utilize it for the MEMENTO and was merged last week.
- Added support for using smaller "sticker" overlay images that aren't meant to be full sized frames and similar. Hooked up D-Pad buttons to set the location.
- Added support for customizing the name that is used for photos as they get taken, tested with an example that uses adafruit_ntp to set the internal RTC and then includes timestamps in the photo names
- Working on infrastructure issues flagged by adabot related to incorrect circup instructions in the readme file.

22:02 @eightycc

- Continuing work on _bleio for RP2.
- Investigating #8824 with @argonblue. I believe we're close to a resolution.

22:28 @jerryn

- Adapted the AutoFocus code from the PyCamera library to work with the OV5640 breakout boards I have been using with a metro esp32s3 and feather esp32s3.
- Began working on a combined RFM library to handle both the RFM69 and RFM9x modules. It likely will not be able to run on the feather M0 boards, but it seemed like a good idea since there is a lot of common (or could be) code between them.

- There is an open issue for discussion of this in the RFM9x repo and a link to it from the RFM69 repo. Feel free to comment with suggestions for improvement. The first goal is to not break anything....then to add features.
- Should this be a “Community” library or an Adafruit library? Name? Is CircuitPython RFM or Adafruit CircuitPython RFM OK?
- Hoping to clear out existing issues in the RFM69 and RFM9x libraries as I work through the new library. I closed a few issues that did not appear to be actual issues with the library. I expect they will get reopened if I was too aggressive.

25:53 @Justin (text only)

- Got ConnectionManager in the bundle and frozen onto boards that need it
- Opened a few PRs that use legacy “set_socket” methods that needed to be merged before the changes to Requests is
- The PR to Requests is set and ready for final review (removed old socket code, updated all examples and got code coverage to 85%)
- Random fact: so far 11 PRs have been opened to make this change (8 are merged)

26:22 @makermelissa

- Fixed an issue with the CircuitPython Code Editor where it was refusing to connect via Web Workflow
- Worked on writing a MEMENTO guide with Web Workflow, but ran into a bug where SD cards couldn't be used remotely
- For the time being, am working on GitHub issues
- Will then switch back to working on Pi Eyes

27:04 @tannewt

- Roof repair and sick kid may distract me this week a bit.
- Fixed SSLSocket binding
- Fixed PWMOut crash and standardize PWM related classes to using finaliser only.
- Working on USB host bugs but need Thach's feedback to finish them.
- 9.0.0 bugs!

28:20 @tekktrik (not present)

- Past week
 - Released my new “circfirm” CLI tool, which aims to allow updating CircuitPython firmware for boards from the terminal. It was inspired by circup and also an issue where many boards had to be updated for the PyCon sprints.
- This week
 - Continue to improve circfirm
 - Prepare my other tool, cirmlink (auto-syncing/pushing code from local directory to board), for updates including cross platform usage
 - I'd love to make some small tweaks to how adabot calculates library downloads. “pypistats” is a library that removes the dependence on performing BigQuery updates manually.

- Forever busy with grad school, but please don't hesitate to ping me in Discord regarding issues I can help with (I likely will not see them otherwise)

29:12 ## In The Weeds

- 29:35 Began working on a combined RFM library to handle both the RFM69 and RFM9x modules. It likely will not be able to run on the feather M0 boards, but it seemed like a good idea since there is a lot of common (or could be) code between them.
 - There is an open issue for discussion of this in the RFM9x repo and a link to it from the RFM69 repo. Feel free to comment with suggestions for improvement. The first goal is to not break anything....then to add features.
 - Should this be a "Community" library or an Adafruit library? Name? Is CircuitPython RFM or Adafruit CircuitPython RFM OK?

38:35 ## Wrap-Up