

CircuitPython Weekly Meeting for November 4, 2024

Video is available [on YouTube](<https://youtu.be/8hA2PBzK7yM>).

Join here for the chat all week: <http://adafruit.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.

2:10 Community News

2:35 CircuitPython 9.2.0 Released

CircuitPython 9.2.0, the latest minor revision of CircuitPython (although packed with enough for a major step), is a new stable release. - [Adafruit Blog](<https://blog.adafruit.com/2024/10/28/circuitpython-9-2-0-released/>) and [GitHub Release Notes](<https://github.com/adafruit/circuitpython/releases/tag/9.2.0>).

****Notable changes in 9.2.0 from 9.1.x****

- Raspberry Pi RP2350 support.
- Update to Espressif ESP-IDF V5.3.1, including new I2C driver.

- Merge MicroPython updates from v1.22.2 and v1.23.
- Espressif BLE improvements.
- Add `math.dist()`.
- `_eve` updates.
- New `busio.I2C.probe()` and `bitbangio.I2C.probe()` methods to check for a single device address
- ESP32-S3: implement `sdioio`.
- New `audiodelay`'s and `audiofilters` modules. These modules are experimental, and the API may change.

4:15 MicroPython v1.24.0 Released

The new MicroPython v1.24.0 adds support for the new Raspberry Pi RP2350 MCU, improves RISC-V support with native code generation, supports ESP32-C6 MCUs, updates the Zephyr version with threading support, adds unified TinyUSB bindings across ports, adds a portable UART IRQ API, and has enhanced mpremote recursive copy. There are also numerous bug fixes, enhancements to the test suite and more attention to testing of the machine module and its API. For more details see [GitHub Release Notes](<https://github.com/micropython/micropython/releases/tag/v1.24.0>).

5:12 Arduino Brings Its MicroPython Editor to the Cloud with a Browser-Based Web App Release

The web appears to be a popular place to edit MicroPython and CircuitPython apps with the latest entry being from the Arduino team. At the moment the editor is still in the 'lab' phase with bug fixes and improvements planned. A webserial browser is required (Firefox would need [an extension](<https://addons.mozilla.org/en-US/firefox/addon/webserial-for-firefox/>)) - [hackster.io](<https://www.hackster.io/news/arduino-brings-its-micropython-editor-to-the-cloud-with-a-browser-based-web-app-release-310179492abc>) and [Arduino](<https://lab-micropython.arduino.cc/>) (Arduino log-in required).

6:11 A Roundup of CircuitPython Website Upgrades

The main CircuitPython website, [circuitpython.org](<https://circuitpython.org/>), has undergone several fixes and enhancements - [Adafruit Blog](<https://blog.adafruit.com/2024/10/29/roundup-of-circuitpython-org-changes-circuitpython/>) and [CircuitPython.org](<https://circuitpython.org/>).

- * Fixes a language bug for prerelease download
- * Made major features of each board more visible
- * Added a castellated pad filter
- * A scrollable manufacturers list
- * UF2 files listed first in downloads
- * A How to Install link

7:18 WebSerial TERMINAL: A Terminal Emulator For Web Browsers

WebSerial TERMINAL is a webserial browser based terminal program. The author states how this would be useful for CircuitPython (and MicroPython). MIT License, written in JavaScript, HTML and CSS - [GitHub](<https://github.com/peterbay/webserial-terminal>) and [Terminal](<https://terminal.vavrin.eu/>). Via [X](https://x.com/petr_vavrin/status/1851019037536604476).

8:50 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/>). 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),.

9:00 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.****

Overall

- * 16 pull requests merged
 - * 13 authors - eightycc, **shubham0x13**, mikeysklar, jepler, FoamyGuy, bablokb, BlitzCityDIY, dhalbert, dglaude, **itsFDavid**, michalpokusa, dcooperdalrymple, **TheIllusionist77**
 - * 5 reviewers - dhalbert, ladyada, BlitzCityDIY, jepler, FoamyGuy
- * 11 closed issues by 8 people, 12 opened by 11 people
- * Removed Hacktoberfest label from 115 issues.

10:00 Core

- * 6 pull requests merged
 - * 5 authors - bablokb, dhalbert, eightycc, dglaude, jepler
 - * 3 reviewers - dhalbert, jepler, FoamyGuy
- * 27 open pull requests
 - * <https://github.com/adafruit/circuitpython/pull/7675> (Open 611 days) (draft)

- * <https://github.com/adafruit/circuitpython/pull/7811> (Open 585 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/8233> (Open 463 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/8457> (Open 398 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/8647> (Open 348 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9009> (Open 243 days)
- * <https://github.com/adafruit/circuitpython/pull/9094> (Open 222 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9238> (Open 176 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9245> (Open 173 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9349> (Open 138 days)
- * <https://github.com/adafruit/circuitpython/pull/9385> (Open 126 days)
- * <https://github.com/adafruit/circuitpython/pull/9550> (Open 73 days)
- * <https://github.com/adafruit/circuitpython/pull/9559> (Open 72 days)
- * <https://github.com/adafruit/circuitpython/pull/9581> (Open 65 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9650> (Open 42 days)
- * <https://github.com/adafruit/circuitpython/pull/9659> (Open 40 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9667> (Open 37 days)
- * <https://github.com/adafruit/circuitpython/pull/9754> (Open 11 days)
- * <https://github.com/adafruit/circuitpython/pull/9753> (Open 11 days)
- * <https://github.com/adafruit/circuitpython/pull/9756> (Open 10 days)
- * <https://github.com/adafruit/circuitpython/pull/9769> (Open 6 days)
- * <https://github.com/adafruit/circuitpython/pull/9772> (Open 5 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9776> (Open 3 days) (draft)
- * <https://github.com/adafruit/circuitpython/pull/9788> (Open 0 days)
- * <https://github.com/adafruit/circuitpython/pull/9787> (Open 0 days)
- * <https://github.com/adafruit/circuitpython/pull/9786> (Open 0 days)
- * <https://github.com/adafruit/circuitpython/pull/9785> (Open 0 days)
- * 4 closed issues by 2 people, 6 opened by 5 people
- * Removed Hacktoberfest label from 2 issues.
- * 750 open issues
 - * <https://github.com/adafruit/circuitpython/issues>
- * 7 active milestones
 - * 10.0.0: 13 open issues
 - * 9.2.x: 2 open issues
 - * 9.x.x: 45 open issues
 - * Libraries: 22 open issues
 - * Long term: 637 open issues
 - * Support: 16 open issues
 - * Third-party: 15 open issues
 - * 0 issues not assigned a milestone

11:50 Libraries

- * 10 pull requests merged

* 8 authors - **shubham0x13**, **mikeysklar**, FoamyGuy, BlitzCityDIY, **itsFDavid**, michalpokusa, **dcooperdalrymple**, **TheIllusionist77**

* 4 reviewers - dhalbert, ladyada, BlitzCityDIY, FoamyGuy

* Merged pull requests:

* https://github.com/adafruit/Adafruit_CircuitPython_Fingerprint/pull/55 (Days open: 30)

* https://github.com/adafruit/Adafruit_CircuitPython_VL53L1X/pull/20 (Days open: 14)

* https://github.com/adafruit/Adafruit_CircuitPython_EPD/pull/83 (Days open: 3)

* https://github.com/adafruit/Adafruit_CircuitPython_Display_Text/pull/210 (Days open: 3)

* https://github.com/adafruit/Adafruit_CircuitPython_TemplateEngine/pull/5 (Days open: 3)

* https://github.com/adafruit/Adafruit_CircuitPython_WM8960/pull/4 (Days open: 1)

* https://github.com/adafruit/Adafruit_CircuitPython_VCNL4200/pull/4 (Days open: 1)

* https://github.com/adafruit/Adafruit_CircuitPython_VCNL4200/pull/2 (Days open: 1)

* https://github.com/adafruit/Adafruit_CircuitPython_VCNL4200/pull/1 (Days open: 1)

* https://github.com/adafruit/Adafruit_CircuitPython_Bundle/pull/483 (Days open: 1)

* 43 open pull requests (Oldest: 809, Newest: 1)

* 7 closed issues by 7 people, 5 opened by 5 people

* Removed Hacktoberfest label from 113 issues.

* 888 open issues

* 96 good first issues

* <https://circuitpython.org/contributing>

Library PyPI Weekly Download Stats

* **Total Library Stats**

* 1328943 PyPI downloads over 340 libraries

* **Top 10 Libraries by PyPI Downloads**

* Adafruit CircuitPython Requests (adafruit-circuitpython-requests): 29524

* Adafruit CircuitPython BusDevice (adafruit-circuitpython-busdevice): 22439

* Adafruit CircuitPython ConnectionManager (adafruit-circuitpython-connectionmanager):
17759

* Adafruit CircuitPython MiniMQTT (adafruit-circuitpython-minimqtt): 15076

* Adafruit CircuitPython Wiznet5k (adafruit-circuitpython-wiznet5k): 14024

* Adafruit CircuitPython ESP32SPI (adafruit-circuitpython-esp32spi): 13016

* Adafruit CircuitPython Display Text (adafruit-circuitpython-display-text): 12733

* Adafruit CircuitPython HTTPServer (adafruit-circuitpython-httpserver): 9699

* Adafruit CircuitPython PortalBase (adafruit-circuitpython-portalbase): 9131

* Adafruit CircuitPython Seesaw (adafruit-circuitpython-seesaw): 8986

[See @danh comments in "In the Weeds" about these large values.]

Library updates in the last seven days:

* **New Libraries**

*

[adafruit/Adafruit_CircuitPython_VCNL4200](https://github.com/adafruit/Adafruit_CircuitPython_VCNL4200)

* **Updated Libraries**

*

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

17:20 Blinka

* 0 pull requests merged

* 0 authors -

* 0 reviewers -

* 5 open pull requests

* https://github.com/adafruit/Adafruit_Blinka_bleio/pull/40 (Open 1123 days)

* https://github.com/adafruit/Adafruit_Python_PlatformDetect/pull/335 (Open 311 days) (draft)

* https://github.com/adafruit/Adafruit_Blinka/pull/884 (Open 82 days) (draft)

* https://github.com/adafruit/Adafruit_Blinka_Displayio/pull/140 (Open 78 days)

* https://github.com/adafruit/Adafruit_Blinka/pull/888 (Open 65 days)

* 0 closed issues by 0 people, 1 opened by 1 people

* Removed Hacktoberfest label from 0 issues.

* 112 open issues

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

* PyPI downloads in the last week: 63459

[See @danh comments in "In the Weeds" about these large values.]

* Piwheels Downloads in the last month: 16778

Number of supported boards: 146

18:30 Hug reports

@danh (hosting)

- @mikeysklar for fixing WebSerialESPTool so it works again on boards that use a passthrough program like PyPortal and MatrixPortal
- @FoamyGuy for continued improvements to circuitpython.org
- @jepler for general fix for non-JSON'able types and other recent fixes
- @bablokb for fixing RP2350 cpu.temperature
- @eightycc for bringing cyw43-driver up to date
- @bill88t for finding an RP2350 cache bug

21:00 @foamyguy

- Anne for showing the ropes of the blog authoring system
- Liz for working with me on the VCNL4200 driver and wrangling some of the trickier bits

21:25 @jepler

- Dcooperdalrymple for some useful contributions & thoughtful interactions
- Kevinjwalters for reporting some synthio issues & papercuts

21:45 Status Updates

@danh (hosting)

- Fixed RP2350 cache bug. Getting ready for a 9.2.1 release, which is not urgent.
- Studying Matter and looking at CircuitMatter. Got it to work on Apple Home.

23:20 @foamyguy

- Try out new style for built-in modules list on circuitpython.org pages. Settled on using the existing styling and applying it to the new list of features. Researched the liquid template docs to figure out a way to fix the extra commas and spacing within those lists of links.
- Wrote content and recorded video for use in custom LED Animation guide. Submitted for moderation now, out soon.
- Library PR Reviews: Scrolling Label improvement, TemplateEngine refactor and improvements, and a more advanced Fingerprint example for rpi.
- Learned how to build the unix port and write tests that run against it.

25:11 @jepler

- Primarily working on supporting the “FM” flux encoding in Adafruit_Floppy for 8” floppy emulation. This will be in the Arduino environment, not CircuitPython.
- In CircuitPython, some small pull requests
- Working to get the block biquad PR to mergeable state (the test was first not pushed, and then it was broken)
- Reviewed some other PRs
- Learned that there’s a firefox extension that can support webserial <https://addons.mozilla.org/en-US/firefox/addon/webserial-for-firefox/> in case that is helpful to anyone else. It worked with the webserial terminal from the newsletter. A helper program is required to be installed on your system, but it seemed to start automatically when a page accessed webserial (at least that was my impression)
- Working on reducing my overall number of open issues (that I filed) on github. You can get a list of all issues you ever filed across all repos, and I’m closing old ones that I don’t care about anymore, if they haven’t seen any activity or interest from others. Currently at 149 open issues, not sure what my goal is

26:55 In The Weeds

@danh

- The download counts for libraries and Blinka above are very large. After looking at this, I think this is because there are thousands of downloads happening when CircuitPython is built for highest-download libraries. Given those inaccuracies, I am thinking we might just discontinue these download statistics, and save some time during the meeting.

31:33 Wrap-Up

Next meeting is **Tuesday, November 12**, at the regular time of day, due to a US holiday on Monday.