



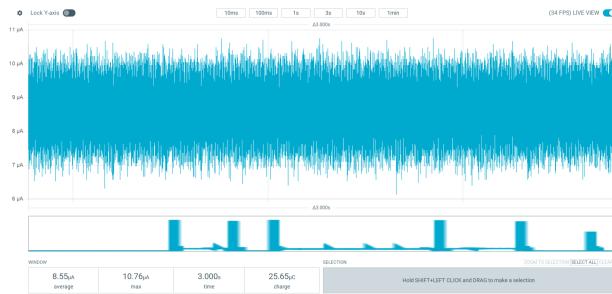
# \*atchy community

## Yatchy / yatchat / Where is my current? - The game



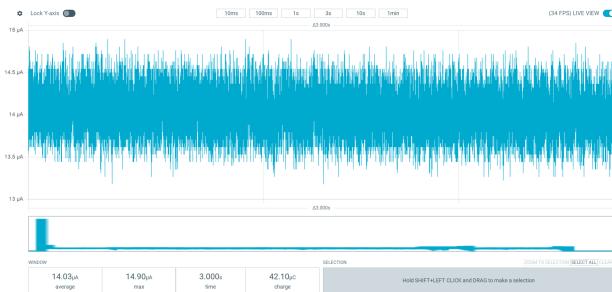
**Szybet** 6/27/2025 5:51 PM

Only esp32c6:



**Szybet** 6/27/2025 7:22 PM

+USB (With FDN transistor but that's unused) so TVS diodes, USB related resistors, so 6uA is used by the TVS diode



**Szybet** 6/27/2025 8:57 PM

Added the quartz subsection, idk ;p



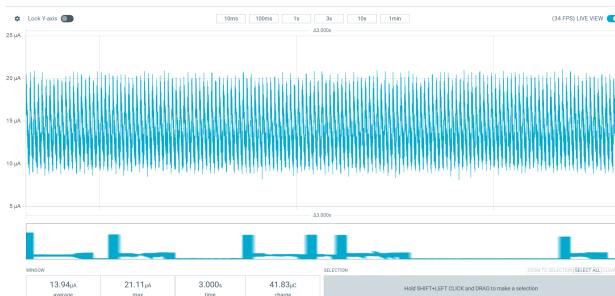


Szybet 6/27/2025 10:48 PM

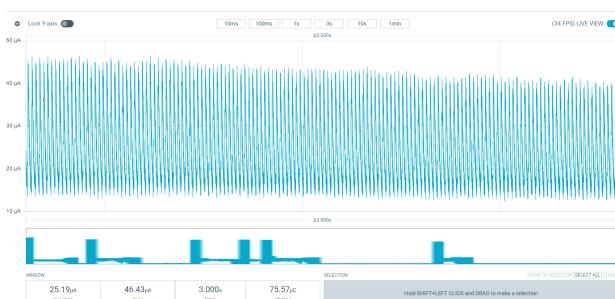
+ Mcp, 100nF cap, i2c resistors (100K), default mcp configuration



only outputs + true state:



Also the same result, its just jumping like that, I did nothing in between those measurements

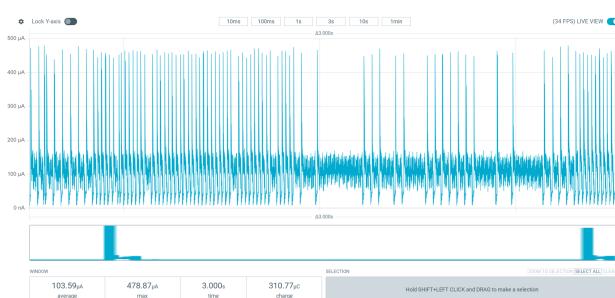


Szybet 6/28/2025 6:39 PM

Added screen circuitry, but without the screen connected or anything configured



Added screen itself, but not configured or anything (It dropped to 60 lowest with this one)





**Szybet** 6/28/2025 7:00 PM

On those 2 readings above was a short on some pins which made the screen not work



**Szybet** 6/28/2025 9:58 PM

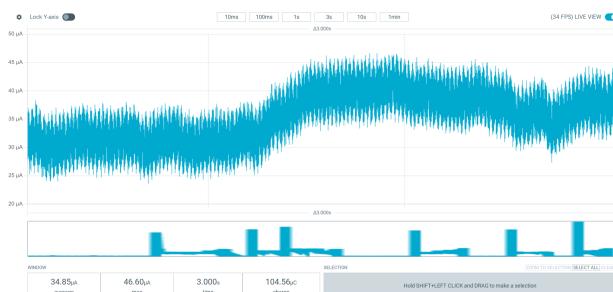
Screen in hibernate (not using RTC IO things now)



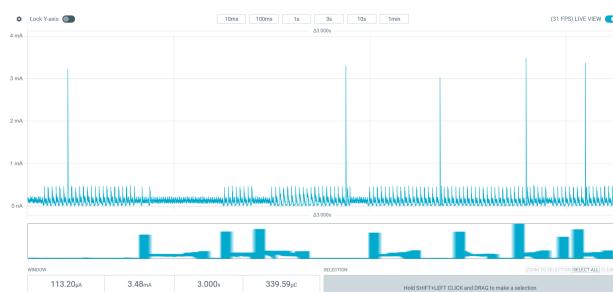
Screen with default initRtcGpio settings, hmm



The same as above, best case scenario outdated (edited)



This is with screen CS pin as high (as it should be) idk, weird

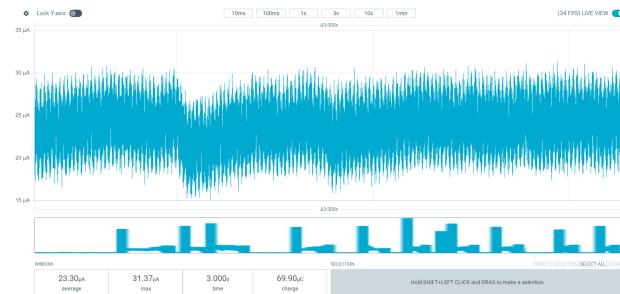


nothing much changes when CS is changed to HIGH after rtc gpios

This is with CS pin as PULL UP, nothing changes again



BEST power consumption recorded with the screen circuit added



This is with EPD\_RESET as LOW, so the default configuration is better



and that's EPD\_DC as LOW, so like 1uA better at max, so probably no change (but false sounds better so lets leave it)



Screen itself should add 5uA, + driving circuit things, those results are pretty okay



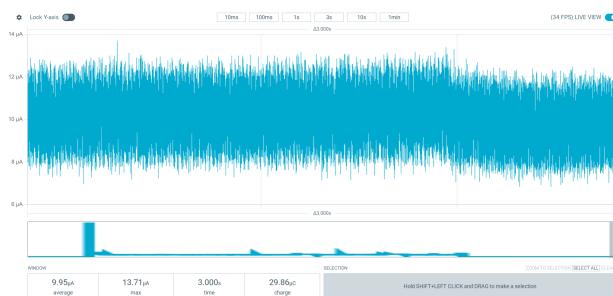
**Szybet** 6/28/2025 10:52 PM

tinkering with rtc\_gpio\_set\_level achieves 20.90 uA, so like saved a few uA max  
those results are fine



**Szybet** 6/28/2025 11:50 PM

No screen, but added motor circuit (but without motor) so a bit of 3v3 circuit too + no software for the motor pin (edited)



**Szybet** 6/28/2025 11:58 PM

with software for motor and activating him, but him not being present nothing changes in power consumption later



**Szybet** 6/29/2025 3:36 PM

After adding 3.3V regulator + 4.2V from the battery supplied



**Szybet** 6/29/2025 4:14 PM

pdf says +25-40uA wasted at this current

checks out



**Szybet** 6/29/2025 5:43 PM

This is the lowest with battery IC soldered (+ 2 capacitors, PROG resistor)



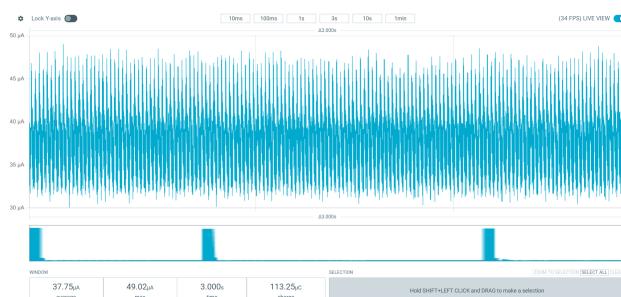
but I see a lot of noise from time to time, a lot



 **Szybet** Click to see attachment 

**Szybet** 6/29/2025 6:01 PM

That was just me, i moved 0.2m from it and its fine



+ note, the battery IC likes to be clean probably very

 **Szybet** 6/29/2025 6:25 PM

Added stat pin resistors



 **Szybet** 6/29/2025 6:45 PM

Added ADC voltage divider, no change really, good



 **Szybet** 6/30/2025 12:02 AM

Note: All previous measurements were taken without the screen itself, just the circuit (until otherwise said)

After adding the module, power consumption changed:



the room temperature also changed, but common humidity too, but wtf



**Szybet** 6/30/2025 12:26 AM

now it's 500 uA out of nothing



**Szybet** 6/30/2025 11:59 AM

It's back to normal, I only disconnected 3.3V line

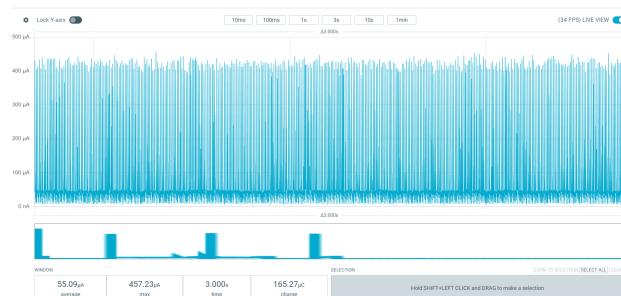


Cleaner without USB connected:



**Szybet** 6/30/2025 12:45 PM

With module but with the rgb diode pins set to pull up high, wtf





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After adding ACC bma456 but not configuring it (idk if it works yet lol)



Szybet 6/30/2025 1:54 PM

Configuring acc with step counting



Szybet 6/30/2025 2:14 PM

With everything enabled, ACC too, mcp configuration too, looks good, very good



(The more noisy readings are with usb connected, it doesn't impact power consumption really, just the look)

This is without MCP configuration (interrupts etc)



so this eats 15%

and not using step counting saves 30%



Szybet so this eats 15%

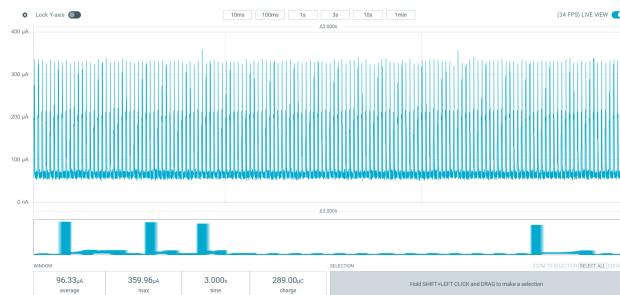
Szybet 6/30/2025 2:25 PM

or not really, as I can't replicate this reading?



**Szybet** 6/30/2025 3:06 PM

Now with default everything it's just that, pretty stable

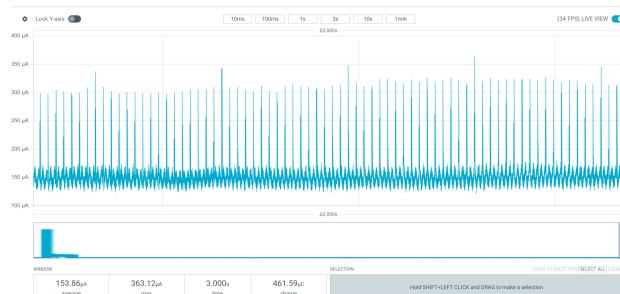


this is good



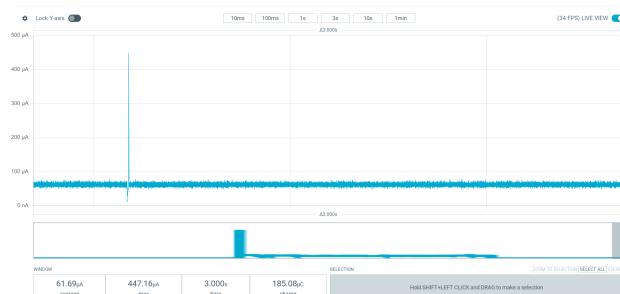
**Szybet** 6/30/2025 6:06 PM

Another yatchy with the pull up fix, previously it was 400uA lol



**Szybet** 6/30/2025 6:17 PM

My yatch without ACC



Exported 55 message(s)

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