

# About using electronic stuff

electronic stuff as a hobby

## The Absurd Notifier



It is the story of repurposing a broken Garmin watch into a desktop notification display. When focused on a computer task, don't miss any notifications thanks to the absurdity of a desktop notifier.

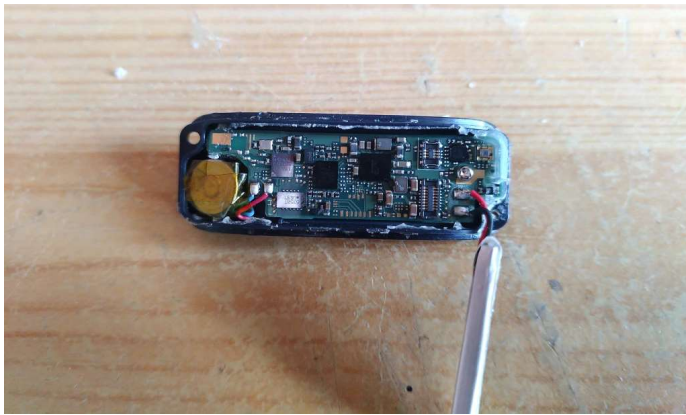
Some time ago I struggle to make a small device displaying the phone notifications on a nice display. I tried with an ESP32 linked via Bluetooth to a custom app on my android phone. For example Mitchell Wong Ho made a nice project doing exactly that [link]. Unfortunately I didn't manage to get reliable automatic re-connection after I got away with my phone.

Garmin makes very nice smart watches. And their phone application is full of features. You can have all the notifications you want on the watch's display, and the connection is reliable. After detour from eBay, and I found a small Garmin vivamart2 watch. The display is broken, but seems to still connect to a phone. And more impor-

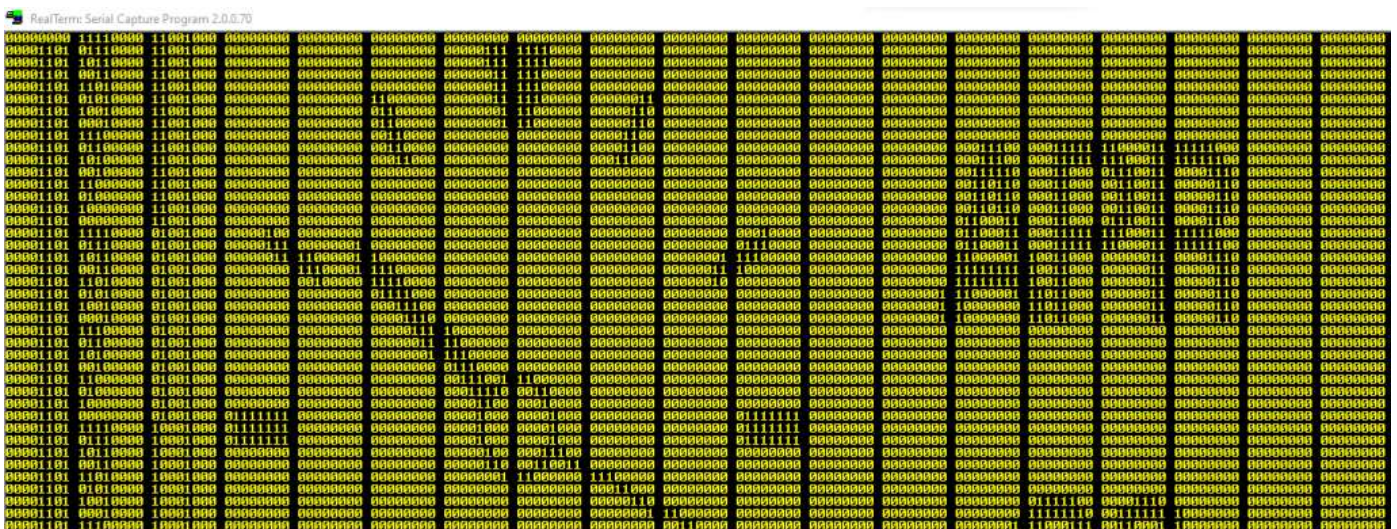
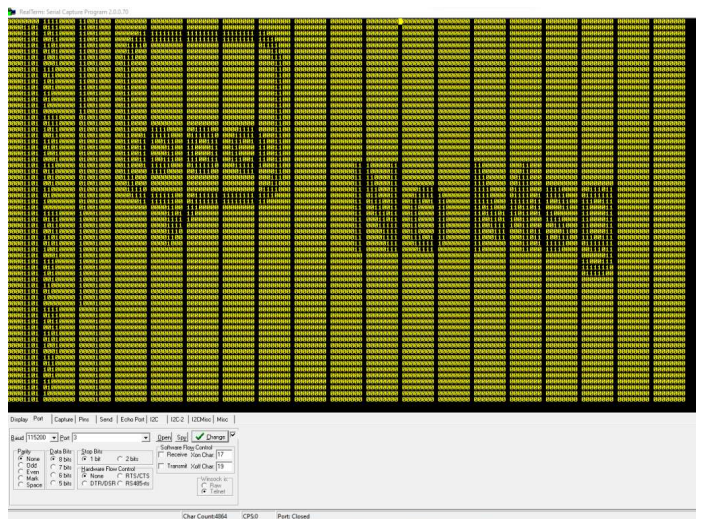
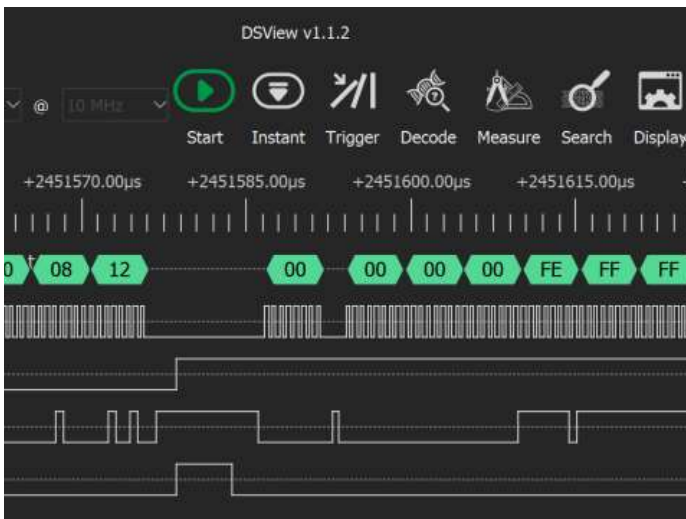
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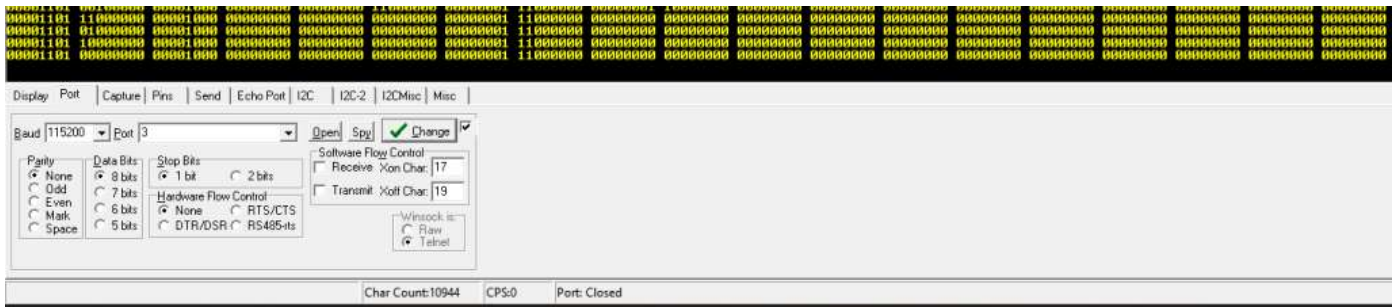
The display of this watch is a monochrome OLED, 128x64 pixels. And here some of you might start to think of having a look on the data. To understand the data sent to the screen, I had to made a break-out board for the small smt connector. It was easy then to connect a logic analyzer. It is a SPI connection, so I started to program a PIC18F57K42 to forward the bytes to a serial port. Playing with some offsets reveals the image.



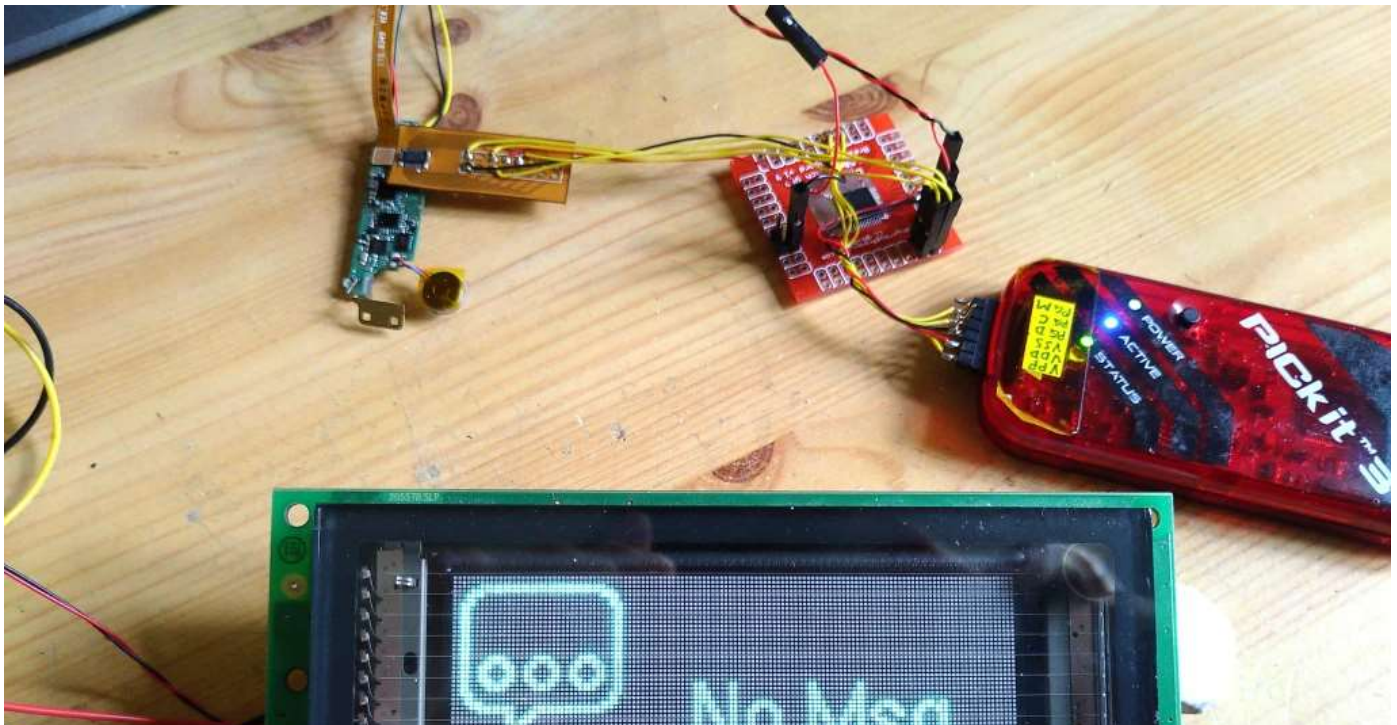
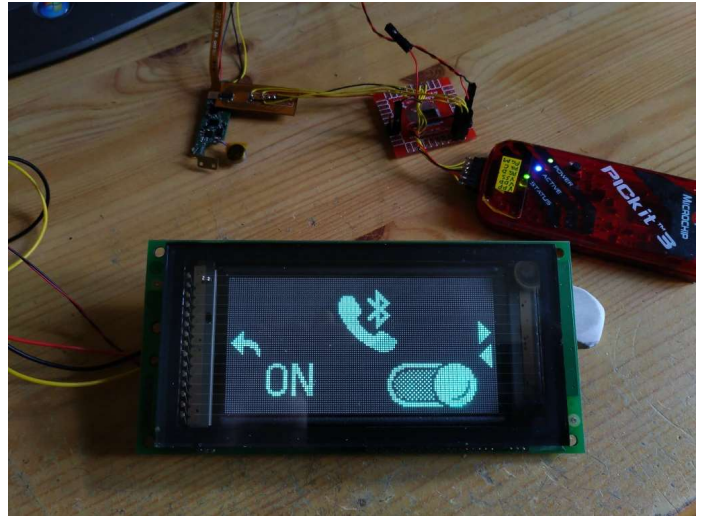
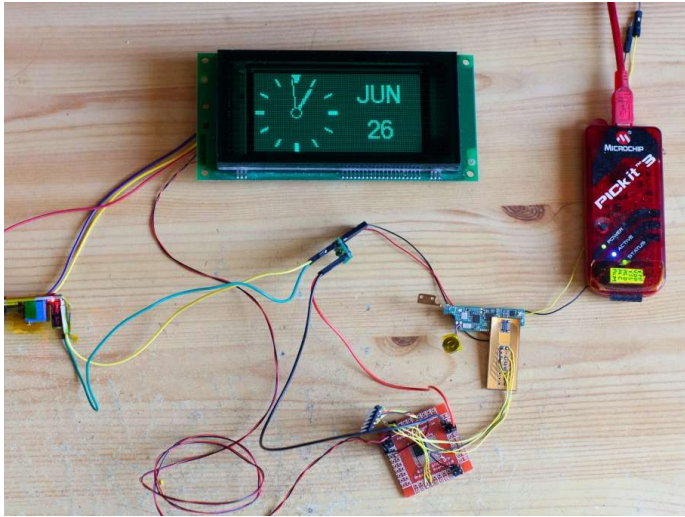
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I have laying around some nice 128×64 VFD display I used for the [Thermal printer](#) project. Their connection is serial at 115200 bauds. So I programmed the PIC to act as slave SPI and Serial master, and put in form the data.



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The display module is quite large, so I draw a case that looks like a 70's TV set.



Remains 3D printing and stuff everything inside :

## The Absurd Notifier



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3D files and PIC program can be found here.

Thanks for reading!



This entry was posted in 3D printing, Micro Controller and tagged PIC microchip, vfd on July 3, 2022  
[<https://pierremuth.wordpress.com/2022/07/03/the-absurd-notifier/>] .

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## 5 thoughts on “The Absurd Notifier”



Louis Laureys

July 3, 2022 at 5:10 pm

Love the design in combination with the VFD, very space age!

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**pierremuth**

Post author

July 3, 2022 at 5:47 pm

Thanks!

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Daniel Ughelli

July 6, 2022 at 3:21 pm

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I've made a desktop notifier too! here's my documentation:

<https://fabacademy.org/2022/labs/cidi/students/victor-ughelli/projects/final-project/>



**pierreemuth**

Post author

July 6, 2022 at 4:18 pm

Thanks a lot!

Wow your notifier is excellent! nice write-up! thanks for sharing it!

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