

## OPEN PLOTTER ON RASPBERRY PI

Hello;

In this article I show you how I manage my marine electronics on a raspberry pi mini computer.

First of all, why I choose a raspberry pi? Other options?

I was looking for a cheap, open source, low consumption and modular system for use as central navigation on my Feeling 10.90 "Auskalo". I bought it in 2020, for less than 200€ with a screen/support of 7 inches.

On the market exists some other mini computers that do the same that the raspberry as "the potato", "the rock pi", "banana pi", etc.

Other good option is use a laptop, but the electrical consumption will be higher.

The instalation:

I placed it on the top of the radar screen, fixed with a fotografie rotule that permit me to move it on 360 dcgrccs.



The electrical wiring is important and gave me some problems, the raspberry needs a source of 5V/3A on usb type c connector, at first I place the usb source near the breaker and send one usb wire of 1,5 mts to the raspberry, that option was not so good and "low voltage" alarm was showed by the raspberry.

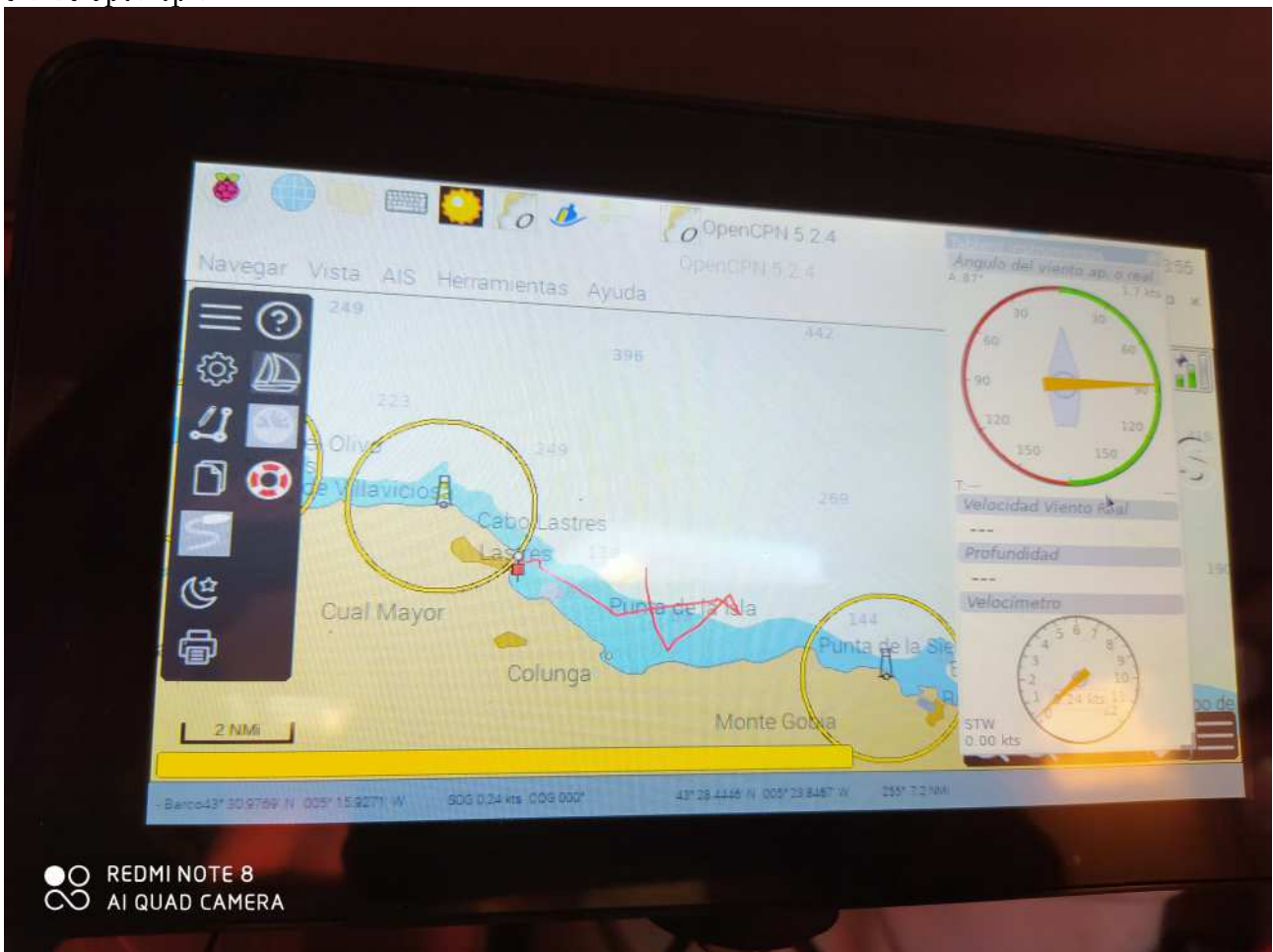
Finally I installed a box of conecions very close to the raspberry, where the trafo 12/5v was installed.

Once I had it placed, the first it's to install the "operative system", I choose OpenPlotter, you can download free in internet.

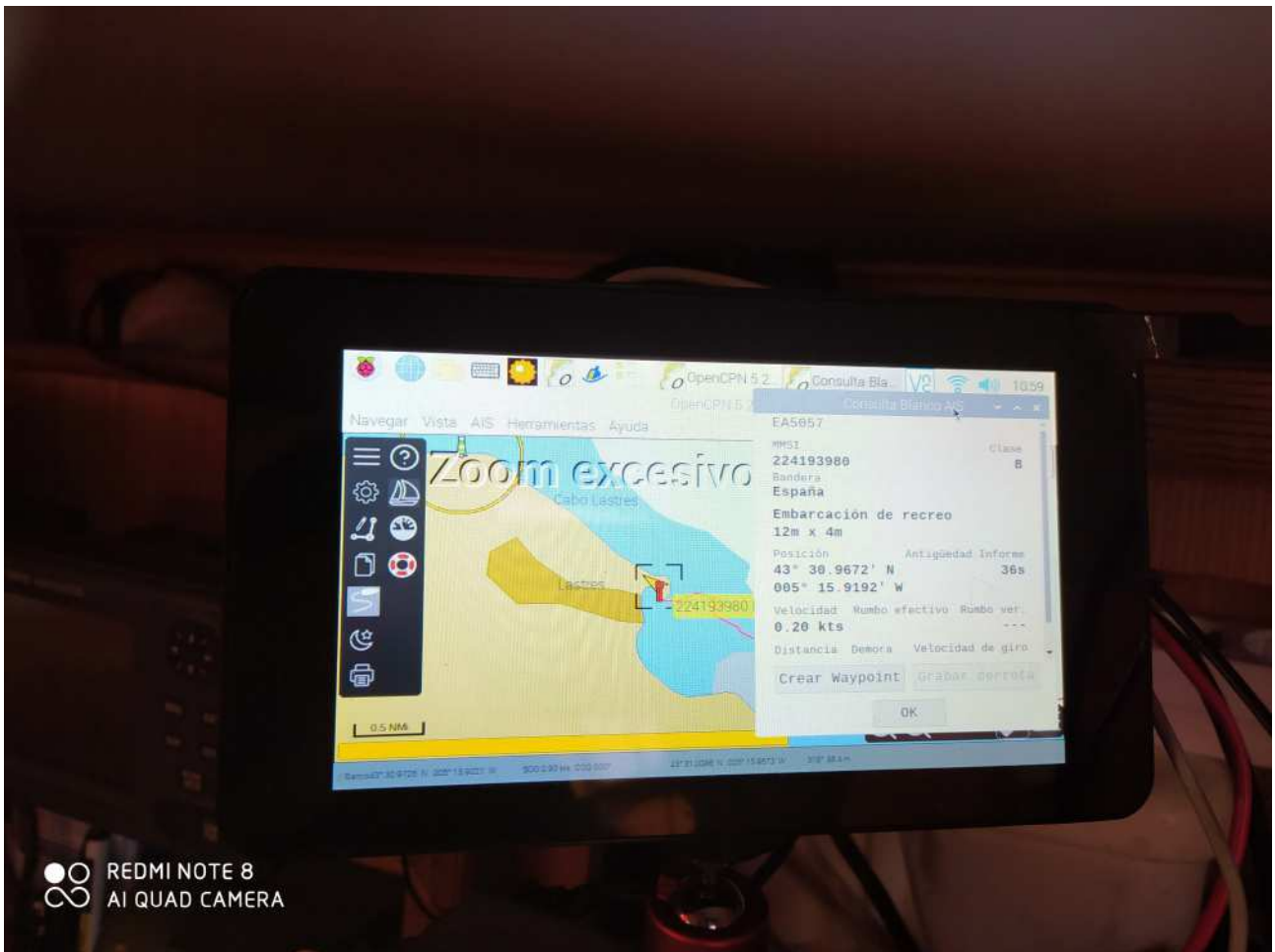
OpenPlotter is design for boats, and is compatible with a lot of plugs very interesting for sailing vessels. The main one is the plotter, Open CPN, is a basic but powerfull plotter with allow us many options.

First plug that I installed was the GPS, a usb gps that cost less of 20 €, with it installed and configurated you can see your position on Open CPN.

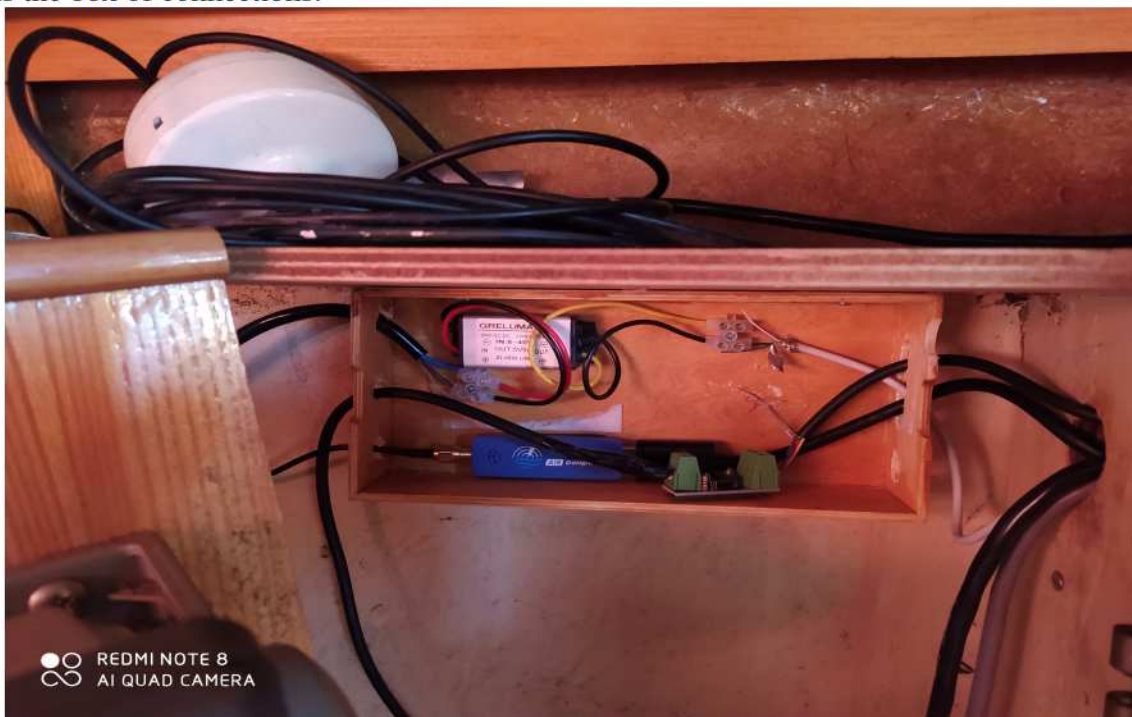
The second step was connect my old autohelm electronics to the raspberry. For that its needed one optocoupler, 10 € in amazon, Once its installed and configurated you can see the wind and log dates on the open cpn



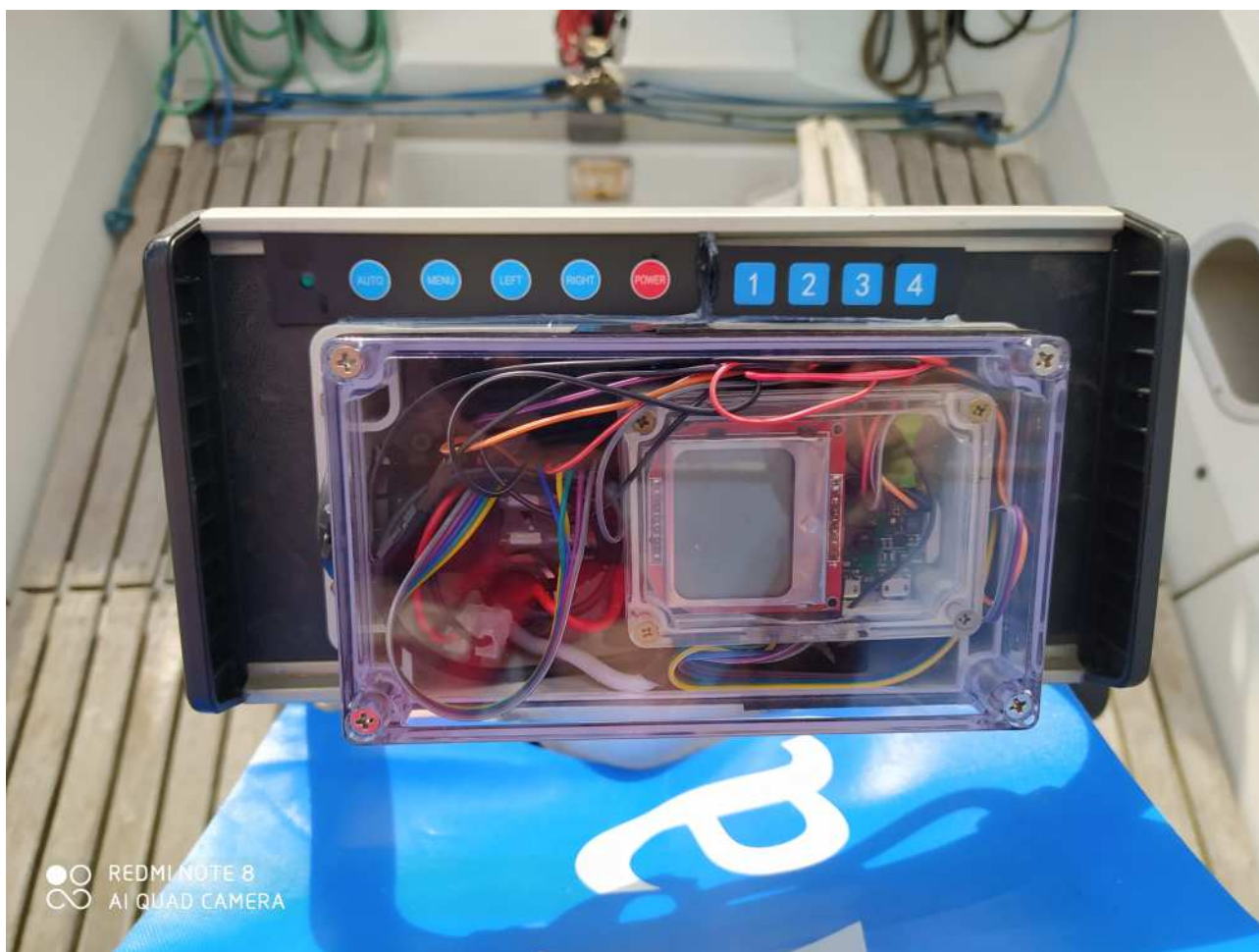
The third step was to install an AIS rceceptor, many options are available, I bought and usb rceceptor, 36 €, it comes with a small aerial, I tried with it and with a VHF valum connected to the low shroud, no differences was noted for me, but I need to check it more times. Now I can see the AIS echos on the Open cpn



This is the box of connections:



Now I'm trying to connect the automatic pilot, for be controlled also from Open CPN.  
At the moment I can not conect it, because its given me some problems, but I will get it. My autopilot its a Pypilot, also raspberry based:



Best Regards

Aritz on Feeling 10.90 "Auskalo"