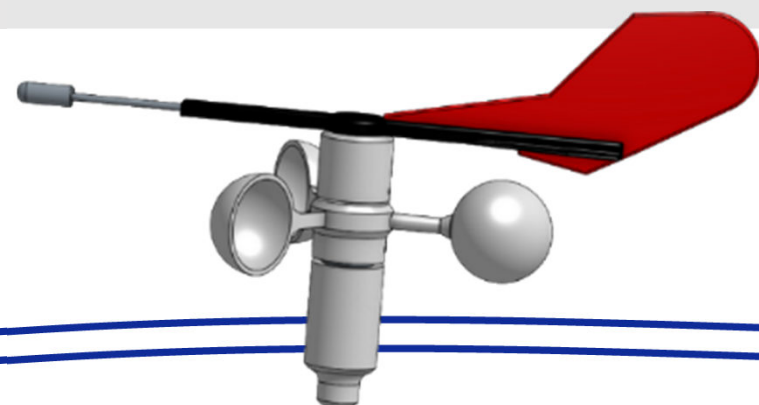## Who we are...

...a group of sailing-enthusiastic technicians with many ideas committed to DO-IT-YOURSELF (DIY) thoughts

How we develop...

...with openness,
... participation of the later users,
... hardware and software openness,
... mutual support and with fun at cool maritime projects

Projects...

... DIY Plotter_CM3 - DIY Plotter
... DIY Foredeck Camera
... Open data formats
            ...SignalK
            ...OpenData / -Maps
... DIY Wind sensor
... DIY plotter software (AvNav)
... DIY Remote Control for Raymarine AP
... DIY Tiller Pilot
... Open Navi Software
            OpenPlotter vs OpenCPN
... DIY multifunctional display
... DIY Plotter - Base 10" Car Radio
... DIY Engine Diagnosis
... Node-RED Sensor integration
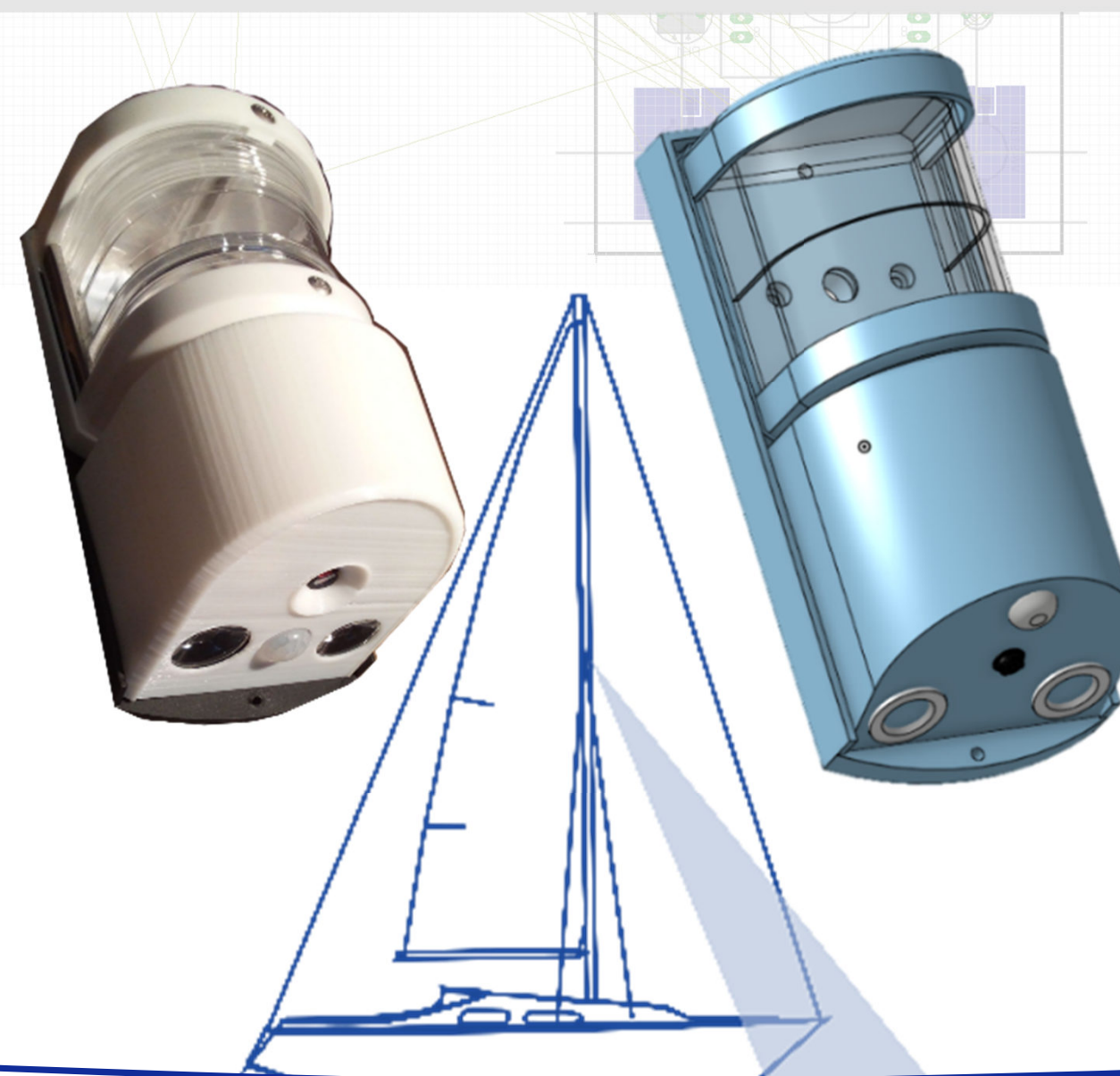... DIY Battery Controller
... DIY Marine Control Server

DIY Plotter_CM3

- Do-it-yourself plotter construction with professional production techniques
- Sophisticated component selection

DIY Foredeck camera

- Project start 06/2019
- Distance camera, deck lighting & motion detector
- Incl. spring sensor (°C/hPa/rel.F.)
- Only 5 months to the prototype

Free sea charts / OpenData

- Since 2009 - free nautical chart project
- OpenSeaMap as part of the OpenStreet Map project (since 2004)
- 2.3 million users (2015)

SignalK

- New and open data format for the exchange of maritime data
- Developed by sailors for sailors
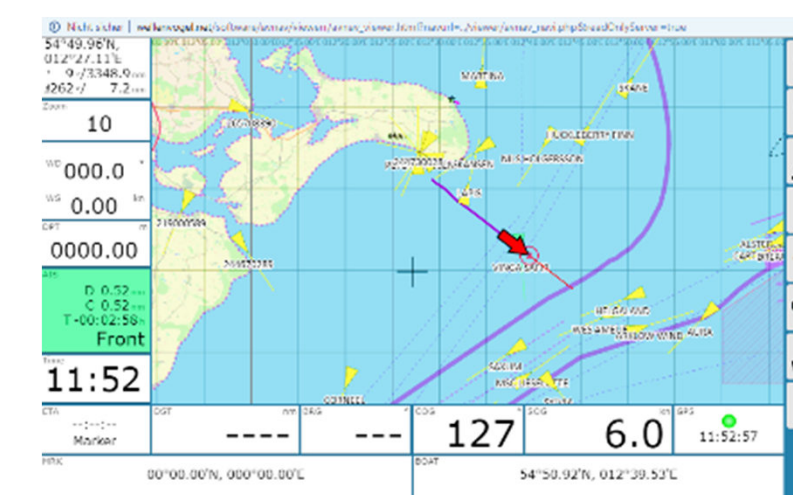- Data exchange for ships & ports

DIY Windsor

- Own production by means of 3D printing
- Wireless data transmission
- Display on tablet/mobile phone
- Costs from approx. 125 EUR

AVNav

- From Andreas Vogel www.Wellenvogel.net
- Fast navigation software for the Rasperry Pi® with access for tablets & mobile phones on board
- NMEA Protocols & Multiplexer

DIY Remote Control Autopilot

- For AP with Seatalk protocol
- For reproduction on Arduino basis
- optional OLED display for wind indication
- Costs: approx. 35 EUR

DIY Tiller Pilot

- Project start: 2018
- further DIY autopilot projects (e.g. pyPilot, ...)
- 2018 first test series for the position sensor

OpenPlotter & OpenCPN

- Program collection OpenPlotter
- free navigation software OpenCPN
- Runnable e.g. on Rasperry Pi®

DIY multifunctional display

- MD5Stack® Application for NMEA2000
- 3 versions
  - Wireless with OpenPlotter
  - Wireless with ESP32 WiFi Gateway
  - Directly on the CAN bus
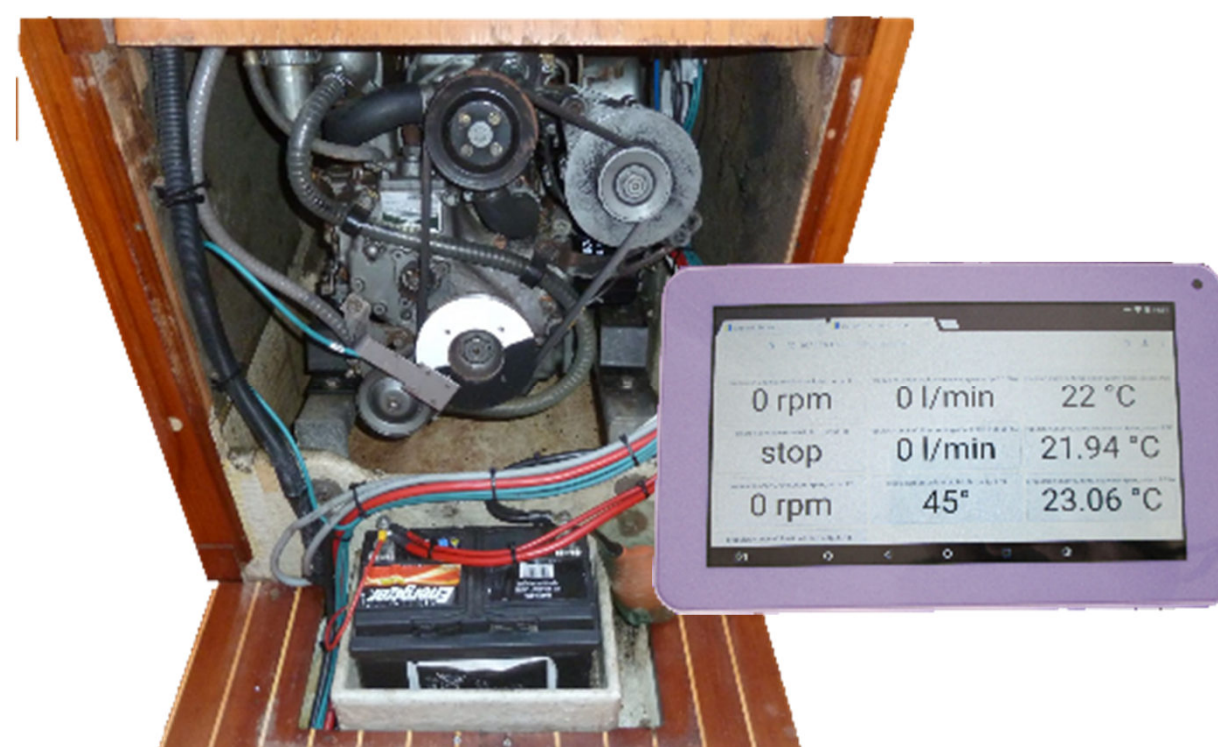- Easily configurable
- Easy to expand
- Costs approx. 50 EUR

DIY Android Plotter

- Base 2 DIN car radio
- Android 9
- Bluetooth,WLAN
- 4 channel audio
- Touch-capable 7'' device
- Costs: approx. 60-200 EUR

DIY engine diagnosis

- Retrofitting for all engine types
- Measurements
  - Cooling water flow rate
  - Temperature cooling circuits
  - Motor Speed
  - Shaft speed
- Early alarm in case of problems to avoid engine damage

0 rpm	0 l/min	22 °C
stop	0 l/min	21.94 °C
0 rpm	45''	23.06 °C

Node-RED Sensor integration

- Free programming environment
- Visual programming for beginners
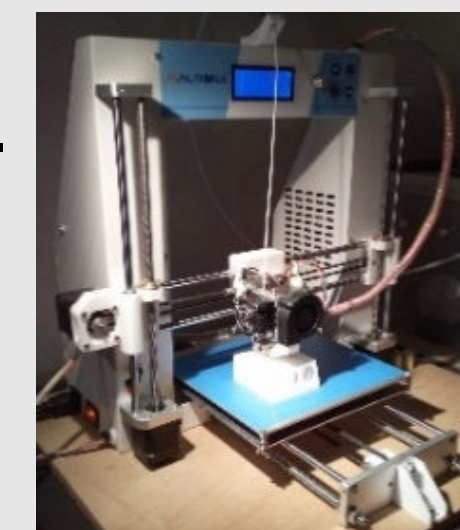- Attractive visualization DIY

Further information

Production

- FabLab & MakerSpaces
- Free access to modern production facilities for private persons
- e.g. circuit board assembly
- Directory - FabLabs worldwide

www.offene-werkstaetten.org

3D-printer

- Increasingly for private.. user available
- from about 180 EUR

Where you can find us..

...at www.Segeln-Forum.de
... and that on the new homepage
www.open-boat-projects.org

BOAT 2020 HALL 10 - Booth H11
DROP BY - AND JOIN IN!

Presentations in the REFIT Arena, setups at the stand!