



Auke
AUKE LOUWES



<http://nuttx.nl/>
Disruptive Solutions



A stopwatch tells you where your at in racing motorcycles ...

NutX and STM32





Who am I

Photography: Auke Louwes

- Ben
- Racing enthusiast (i.a. ONK)
- System/Software Engineer
- Digital Architect
- Data Engineer/Analist
- NuttX adopter

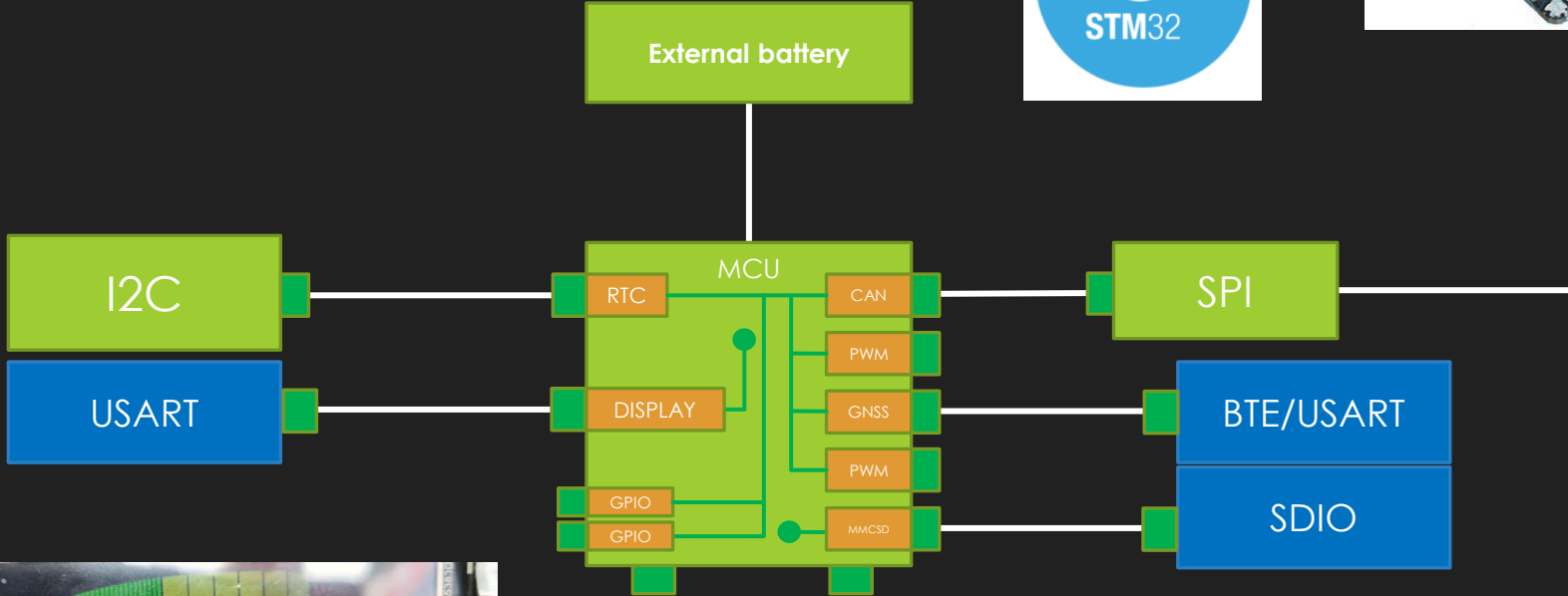
A big thank you to the Nuttx community and Joey & Jan (testing in real racing conditions)

Laptimer with GPS



- Nextion display (own driver in NuttX)
- NuttX
- STM32F407VE
- GNSS/GPS
- BTE (Bluetooth)
- RTC
- CAN-bus
- Custom made PCB
- Creality 3D printer
- Yamaha YZF-R6

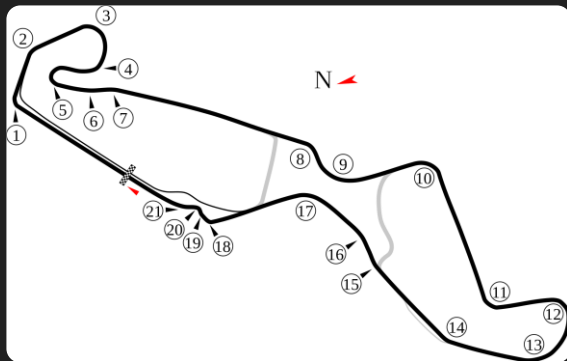
Global Design



Why Nuttx for this project?

- Deterministic
- RTOS offering POSIX compliance
- Small footprint
- Open-source
- Simple build process
- Scalable
- It just works...

Why making this functionality?



- Multiple time measurements possible on the track
- Integration with display and data recovery
- Datalogging on board
- Track section determination en insight
- Learning functionality for the driver
- Scalable
- GNSS for line determination
- Integration with the ECU from Yamaha

DEMO



Whats left... & DEMO

- Making a good mount and case for the Yamaha specific
- Adding extra functionality in logging and data views (learning purposes)
- CAN-bus testing (robustness)
- Improve PCB and connectors (industrial)
- Use it in training sessions! It has proven its benefits!

(mp4 demo is obtainable)

