



Welcome

Zephyr Project Meetup

November 21, 2024

Zurich, Switzerland

Today

18:45 Zephyr in Education?

- Johannes Neyer, ZHAW

19:15 Zephyr Behavior Tree

- Gerson Fernando Budke, Leica Geosystems

19:45 Break

20:00 Zephyr 4.0 and Quiz

- Benjamin Cabé, Zephyr Project

20:15 Porting Zephyr to the CH32003 SGTM

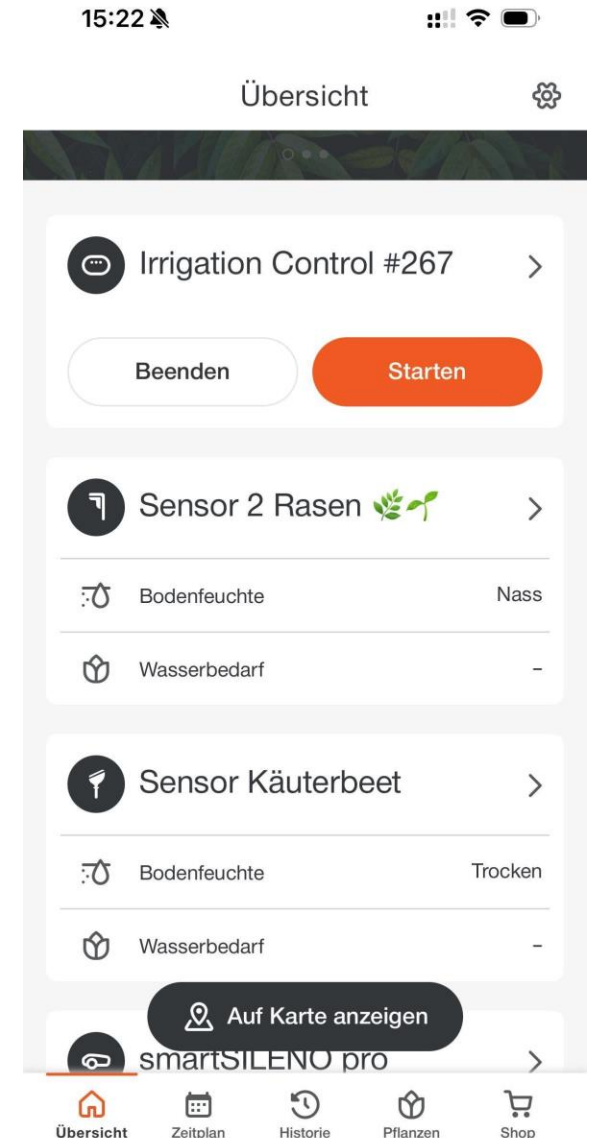
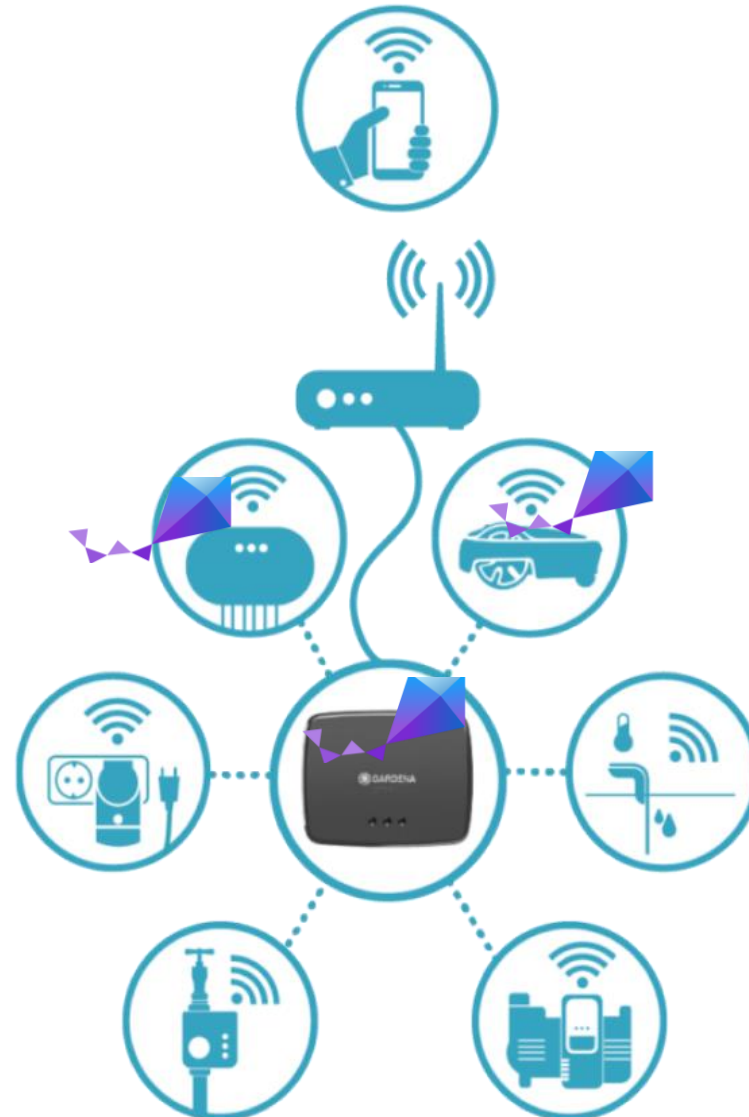
- Michael Hope, Google

20:30 Rethinking Embedded Development: Zephyr Through the Eyes of Model-Driven Engineering

- Tobias Kästner, inovex GmbH

The GARDENA smart system

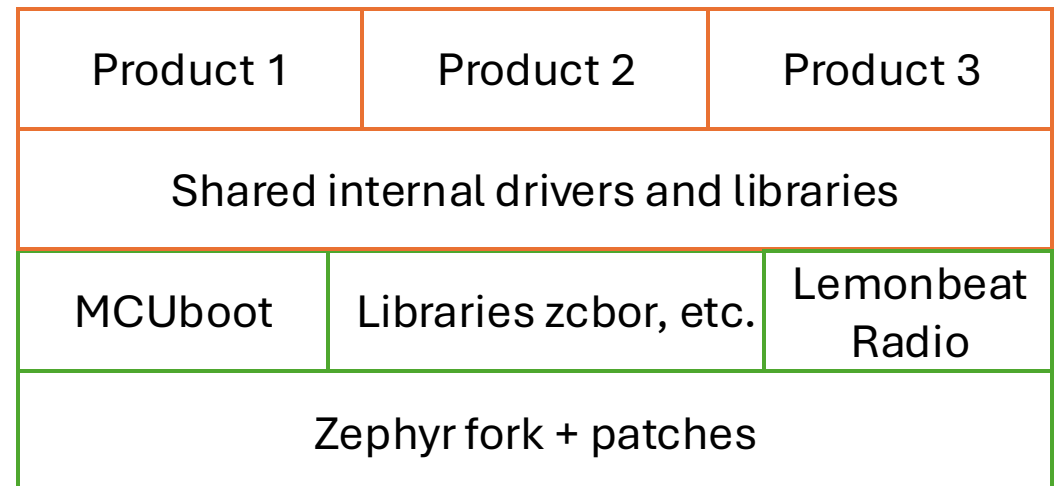
- **Garden automation**
- Plant watering and sensing
- Lawn mowing robots



How we use Zephyr at GARDENA

Development setup

- Multiple applications in a single repo
- Out-of-tree shared modules, libraries and drivers
- Single Zephyr fork with in-tree patches, kept as close as possible to upstream
 - Regular rebase of downstream patches to new releases
 - nRF Connect inspired commit messages [sg toup], [sg fromlist], etc.
- Workflow based on "InnerSource" strategy
 - Code ownership by teams
 - Accept code from all developers, all access
 - Everyone is encouraged to work close to main
- CI Testing with nightly builds/tests
 - "Bring your own test jig"
 - CI **green**: releasable



modular approach

Zephyr 4.0 is out - Let's celebrate



GARDENA smart Irrigation Control

```
Terminal - marc@alnus2: ~/repos/zephyr/zephyr-workspace
Terminal ready
I: external-flash: SFDP v 1.0 AP ff with 2 PH
I: PH0: ff00 rev 1.0: 9 DW @ 30
I: external-flash: 2 MiBy flash
I: PH1: ffc2 rev 1.0: 4 DW @ 60
*** Booting Zephyr OS build zephyr-v3.1.0-26-g98fd08f35e2b ***
I: Starting bootloader
I: Primary image: magic=unset, swap_type=0x1, copy_done=0x3, image_ok=0x3
I: Secondary image: magic=unset, swap_type=0x1, copy_done=0x3, image_ok=0x3
I: Boot source: none
I: Swap type: none
I: Bootloader chainload address offset: 0x10000 I
I: Jumping to the first image slot
*** Booting Zephyr OS build v4.0.0-44-g11b6e63a5435 ***

uart:~$ start main ic24

uart:~$
```