Holiday Gift Guide
Developer Special

Zephyr is an open source real-time operating system (RTOS) that is designed to be small, scalable, and secure. It is used to build products in a wide range of industries, from consumer electronics to industrial automation, and from medical devices to smart agriculture.

Launched in 2016 by the Linux Foundation, the Zephyr Project is supported by a vibrant community of contributors, maintainers and users. Today, more than 1,100 contributors have helped the project surpass 105,000 commits building advanced support for multiple architectures such as ARC, Arm, Intel, Nios, RISC-V, SPARC and Tensilica and more than 750 boards.

Thousands of wearables and other consumer products with constrained environments run on Zephyr. One of the reasons product makers like it is because of the automatically creation of SBOMs during builds that take it to the source file level for better diagnosis and detection of vulnerable states. The development process becomes easier, more efficient and improves maintainability in field. This makes Zephyr the perfect RTOS for consumer embedded devices.

As we celebrate this holiday season, give your favorite developer the Zephyr RTOS Getting Started Guide but if they already have that, check out a few of the products that run on Zephyr that can be purchased for your loved ones today!

Home Tools

Fig 1: Gardena Smart Irrigation Control

Gardena Smart Irrigation Control

The smart Irrigation Control from GARDENA controls a garden irrigation system with up to six irrigation valves. This allows customized, fully automatic irrigation schedules to be planned for up to six separate garden areas. It is integrated into the GARDENA smart system and can be controlled with the GARDENA smart app for a fully automated garden. Learn more here.

iFixit Power Station and Soldering Iron

A 100W portable power station and 100W soldering iron. Safe, easy to use, reliable, professional, and fun, this is a portable power station and soldering iron for professionals, and also newcomers alike. Enabling everyone's Right to Repair. Learn more here.

Fig 2: iFixit Power Station and Soldering Iron

Wearables

The SoundShirt

The SoundShirt is a comfortable modern shirt containing world-leading wearable technology that brings music and media to life in a way that can be felt physically, live, in-real time, on the body in a tactile language unique to each piece of music, cinema, games, or VR experiences. This opens new and diverse ways of enjoying media of many kinds. Using the

SoundShirt, it is now possible to feel each passage of the music and each section of an auditory performance as a unique and separate haptic sensation.

The world is engaging with Virtual and Augmented Reality where autonomy and agency are central to the experience, and in such worlds TOUCH holds the key to creating believable interactions in a far more immersive way than ever before. The combination of multi-sensory media and cross-sensory sensations opens interactive media to be experienced by much wider and more inclusive audiences. Full immersive experiences are the future of entertainment, gaming, fashion, and this is only possible by engaging users on every sensory level. Pre-order a shirt here.
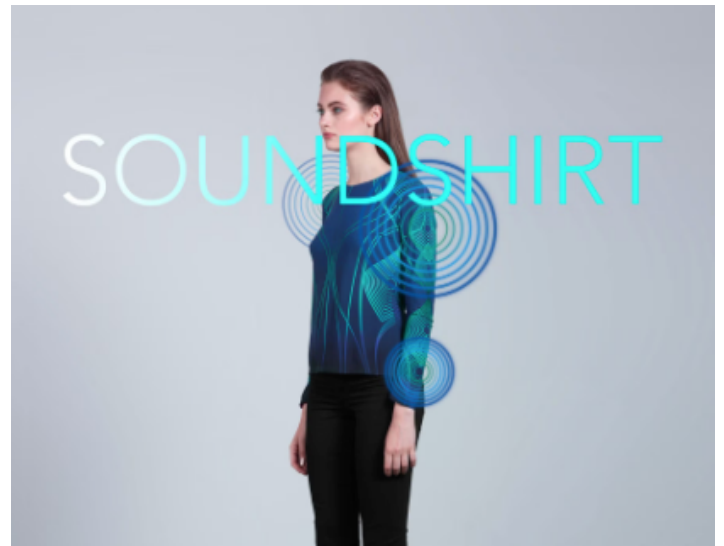

Fig 3: The SoundShirt

Fig 4: Oticon More

Oticon More™

Oticon More are discreet rechargeable hearing aids that gives you access to all relevant sounds. It supports the brain in making sense of sound and it is easy to operate with a double push button for volume and programme control. It features Bluetooth wireless technology for seamless connectivity with your favourite devices. Learn more here.

Devices

Framework Laptop 13 DIY Edition

A thin, light, high-performance 13.5" notebook that is also easy to repair, upgrade, and customize. The embedded controller firmware is a fork of the Zephyr version of chromium-ec, and is fully open source. Designed for productivity - the laptop has a 61Wh for all day battery life, long-lasting, with 80% of its capacity still available after 1,000 cycles of use. Purchase here.

Fig 5: Framework Laptop 13 DIY Edition

Fig 6: REEKON T1 Tomahawk

REEKON T1 Tomahawk

The T1 Tomahawk, the world's first, professional grade, digital tape measure enables tradespeople, across industries, to collect measurements faster and more accurately than ever before. A live view, OLED display, shows measurements of the tape measure, digitally, in both english and metric units. With a click of a button, measurements are saved to a side mounted e-paper display as well as sent over Bluetooth to connected devices. Purchase one here.

Pet tracking & Animal monitoring

Lildog and Lilcat

Lildog and Lilcat are GPS-trackers that show you how your dog(s) and cat(s) are doing in their environments. Not only do they track location in real time, but they also check temperature, sleep patterns, activity level and eating habits. Purchase your dog trackers here and your cat trackers here.

Fig 7: Lildog and Lilcat

Fig 8: Rudolf animal tracker

Rudolf animal tracker

Rudolf device will revolutionize the habit, accuracy and ease of tracking an production animal welfare and location in real time.

The profitability of livestock farming is forcing farmers to move to large units.

Herders have to find new ways to develop their work efficiency and still keep an eye on Individual animals welfare to maximize revenue and minimize losses.

Rudolf is one of the smallest IoT animal tracking devices in the world and offers a maintenance free battery life of up to 10 years in which means the tag only needs to be attached once to the animal during its lifetime in Finland's Lapland challenging environment. Buy now here.

IoT Gateways and Asset Tracking

Sentrius™ MG100 Gateway

Based on the Pinnacle 100 socket modem, the Sentrius™ MG100 gateway captures data from any Bluetooth 5 modules or devices and sends it to the cloud via a global low power cellular (LTE-M/NB-IoT) connection. The MG100 seamlessly incorporates a powerful Cortex M4F controller, full Bluetooth 5 connectivity, and dual-mode LTE-M/NB-IoT capabilities – all with full regulatory, network certifications, and End Device carrier approvals.

Develop your application directly on the integrated Cortex M4F microcontroller using Zephyr RTOS, enabling your application development with a secure, open source RTOS with more than just kernel services. Remotely debug your fleet of devices with the Memfault Platform. Take advantage of the Zephyr community and Ezurio's multi featured Out of Box (OOB) sample source code covering all aspects of the products' capabilities and hardware interfaces. The MG100 also delivers complete antenna flexibility with internal or external antenna options available, and the optional battery backup provides uninterrupted reporting of remote Bluetooth sensor data. Purchase it [here](#).

Fig 9: Sentrius™ MG100 Gateway

Wio Terminal

The Wio Terminal is a small (72 mm x 57 mm x 12 mm) and powerful ARM board with wireless connectivity (2.4G/5G dual-band Wi-Fi and BLE 5.0). It is Highly Integrated with a 2.4" LCD Screen, there is an onboard IMU(LIS3DHTR), microphone, buzzer, microSD card slot, light sensor, and infrared emitter(IR 940nm).

Wio Terminal is compatible with Arduino and Micropython. Its CPU speed runs at 120MHz (Boost up to 200MHz). It also has two multifunctional Grove ports for connecting with over 300 modules and Raspberry Pi 40-pin compatible GPIO for tons of Pi HAT add-ons, which means there are endless IoT possibilities users can create with this tiny device. Purchase it here.

For more products running on Zephyr, check out the Zephyr portfolio:
https://zephyrproject.org/products-running-zephyr/

An overview of the other products running Zephyr

Fig 11: [OBDv8 Dongle](#)
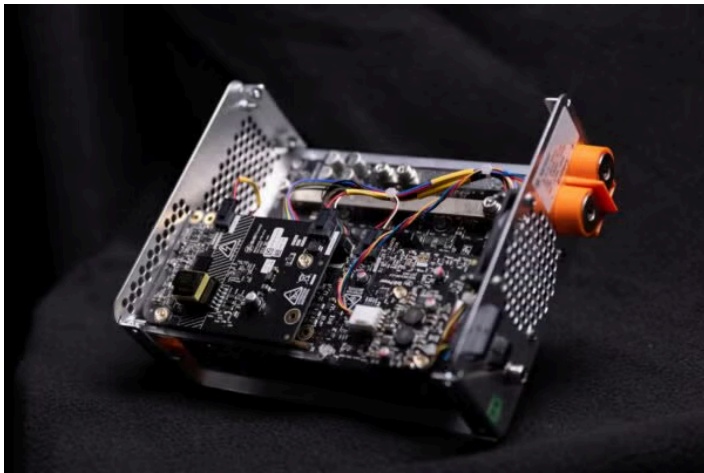

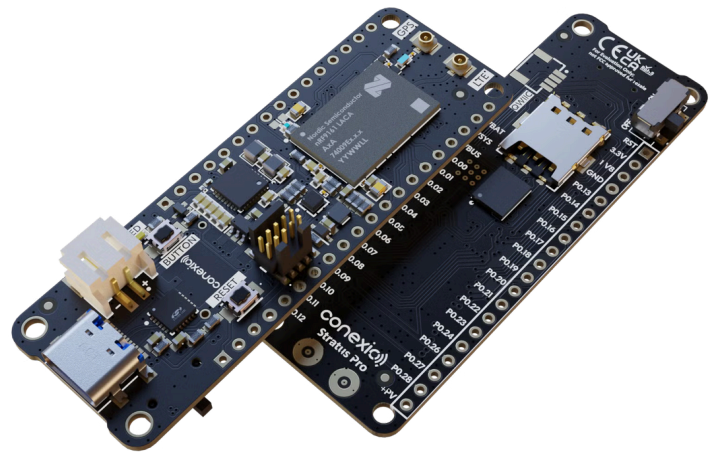Fig 12: [C4Max – Telematics Gateway](#)

Fig 13: [BESA BP6X1](#)

Fig 14: [Conexio Stratus Pro](#)

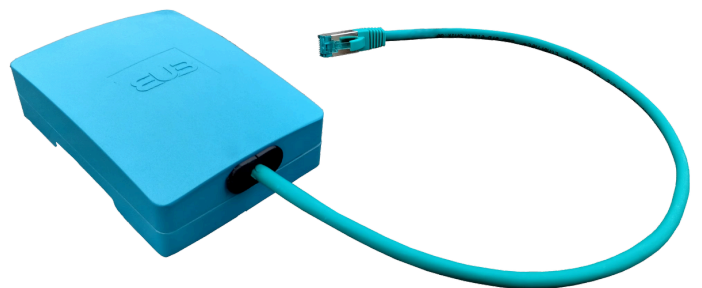Fig 15: [Mobile Measurement Platform (MPP)](#)

Fig 16: [Okrånglig Gateway](#)

Fig 17: [Grid Pad 13](#)

Fig 18: [SenseCAP T1000-S LoRaWAN Tracker](#)

Fig 19: [gaitQ tempo™](#)

Fig 20: [Lisios WaterAlarm](#)

Fig 21: [Vestas wind turbines](#)

Fig 22: [TRACK Solar](#)

Fig 23: [träck](#)

Fig 24: [CHESTER](#)

Fig 25: [adhoc smart waste](#)

Fig 26: [Smart IoT device RAM-1®](#)

Fig 27: [Telespor Radiobjella](#)

Fig 28: [OpenCollar](#)

Fig 29: Sentrius™ BT610 I/O Sensor
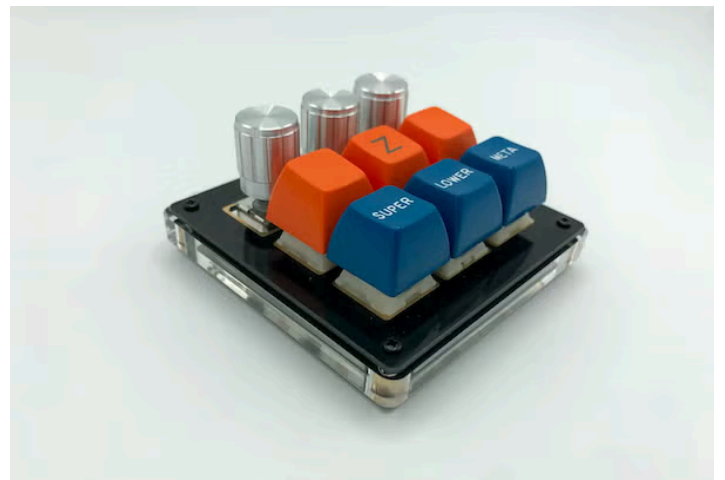

Fig 30: ProGlove

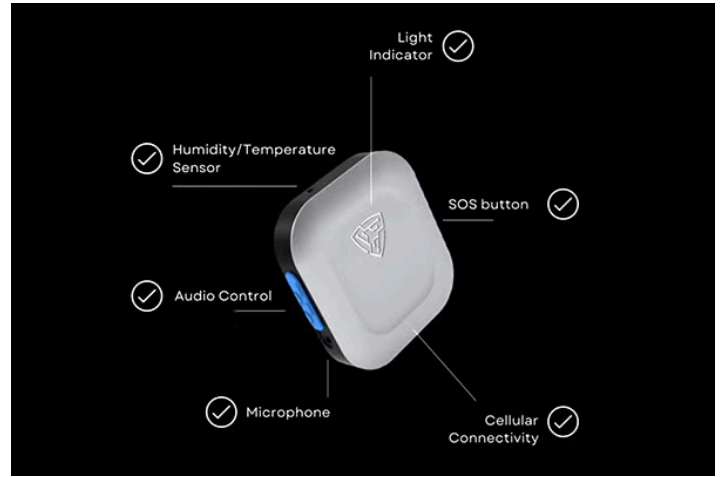
Fig 31: Blixt Zero

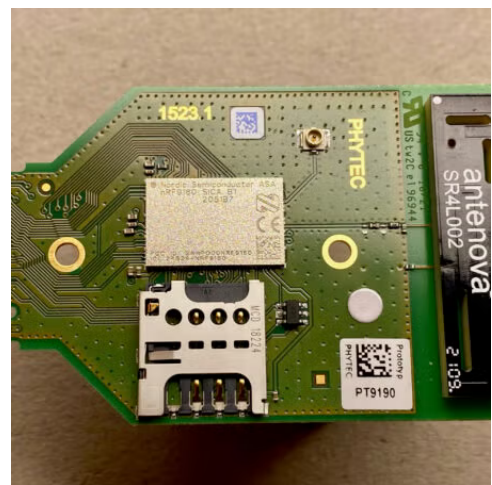*Fig 32: BDN9*

Fig 33: *eBuckle*™

Fig 34: *Mahi*

Fig 35: *Aistin Level / Aistin Motion*

Fig 36: *BeST SENSOR Pump Monitor JROV2201*