Trackunit and Silicon Labs Bring IoT to the Construction Industry

EFR32BG22 Bluetooth 5.2 SoCs

The Challenge

To reduce downtime and costs associated with construction fleet asset management, and to increase productivity through insights gleaned into machine use, service needs and lifecycle from a wirelessly connected device in an industry historically slow to adopt new technology.

The Solution

EFR32BG22 Bluetooth 5.2 SoCs Trackunit created a unique, compact tag that elevates visibility of unpowered equipment and attachments to a fully connected fleet, all while unlocking 10% of every working day spent searching for misplaced tools. They selected Silicon Labs' Bluetooth 5.2 SoCs due to its low power, durability and reliability.

The Result

Trackunit Kin, an easy-to-deploy, small and robust self-powered tag which bridges the gap between large machines and smaller accessories by enabling the entirety of a site inventory to be connected and tracked – all through a phone app at your fingertip.

Shaking Up the Construction Industry with IoT

The words "construction industry" typically incite images of large machinery and, at times, even outdated equipment. But global IoT leader, Trackunit, knew that to serve its customers best, it needed to infuse new ideas into its fleet asset management offerings that not only relied on hardware, but also on the latest IoT software.

Silicon Labs' Bluetooth 5.2 SoCs were instrumental in Trackunit's Kin, a tag that helps connect the entire construction fleet through one simple platform. The Bluetooth 5.2 SoCs:

- Meet the unique requirements of high-volume, battery-powered Bluetooth products

- Feature an ultra-low transmit and receive power (3.6 mA TX at 0 dBm, 2.6 mA RX)

- Include a high-performance, low-power M33 core (27 µA/MHz active, 1.2 µA sleep)

- Deliver industry-leading energy efficiency

- Extend coin cell battery life beyond five years

In return, Kin helps eliminate downtime by finding items exponentially faster – something that might sound like a small

feat but isn't: the amount of time that Trackunit's customers spend searching for small assets in large construction sites usually translates to extreme delay in schedules and overblown budget.

Digital Acceleration in the Construction Industry

While construction is currently the third largest industry in the world, it's also typically slower to adopt new technology. So, Trackunit filled a massive void when it deployed Trackunit Kin in 2020, tackling the needs of its main customers: rental companies, machine manufacturers and contractors.

Trackunit Kin is simple to install and connect, and interfaces with Trackunit's secure, open, cloud-based productivity platform Iris. Not only does it provide clear identification by locating assets via visible LED pulses, but it also offers unparalleled data that allow each of these consumers to glean valuable insights:

• Rental companies can learn how to improve their rental business by gathering both efficiencies and areas of improvement in their daily work (e.g., under-utilized equipment that can be rented out or is due for service).

• Machine manufacturers can closely analyze their machines and behaviors through detailed performance history to help them with future improvements during manufacturing.

• Contractors can also cut costs by learning whether equipment is being handled efficiently or idly, allowing them to reallocate machinery where actually needed.

Small but mighty, Trackunit Kin can serve customers and use cases throughout the world, making it one of the most versatile assets in the construction industry. Additionally, it features:

• Find my asset: deploys the mobile app anywhere in the field to locate an asset

• Lost mode: provides the ability to set an asset to lost and the system to send a notification when the asset is found

• Pairing: tracks the utilization of machine attachments and tools, including "attachment to machine" pairing

• LED indicator: identifies a specific asset by activating the LED on the tag

In Silicon Labs, Trackunit found more than a supplier: they found a partner that understood its roadmap and vision from inception and gave Trackunit the tools they needed to make Trackunit Kin a pioneer in asset tracking and monitoring.

What the Future Holds

Given success, Trackunit is not afraid of growth. One of its main focuses will be to drive true IoT innovation in construction by ramping up equipment and asset connectivity, driving a true integration journey.

Their goal is to digitize a new era of construction by helping their customers solve problems through the simplicity of data.

For more information on Trackunit Kin, visit trackunit.com/hardware/kin/. For more information on Silicon Labs' Bluetooth 5.2 SoCs, visit silabs.com/wireless/gecko-series-2/efr32bg22.

Trackunit's CEO shared specifics on how they improve fleet management with wireless connectivity at Works With 2021!

Watch on-demand