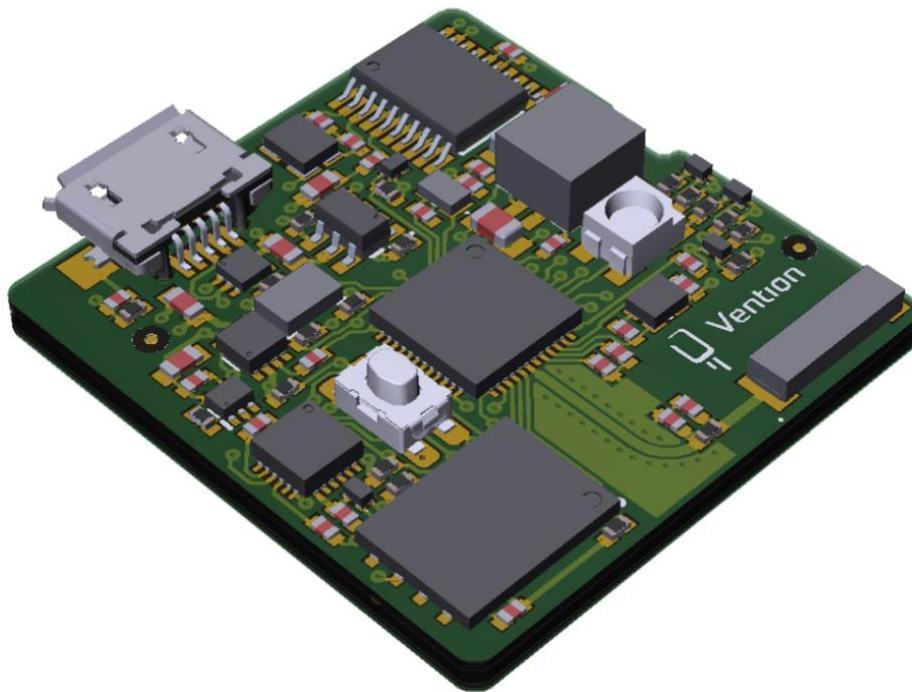# A Bluetooth Sensor Platform for faster product development and lower costs: Wockel

Vention uses its experience in product development to help lower the non-recurring engineering costs for the development of a wide range of sensor products

It's the goal of any developer or business owner: keeping the non-recurring engineering costs as low as possible. Still, these one-time costs to research, design, develop and test a new product, always turn out a burden to profitability. For those working on sensor-related products like fitness trackers, medical wearables, or Bluetooth-enabled motion sensors, a better solution is within reach: the Wockel.

The Wockel ensures cheaper development, earlier testing, faster time-to-market, and fewer teething troubles due to the tested and proven design and production process.

Eindhoven-based [Vention](), home of the Wockel, designs and builds embedded products by writing custom algorithms that run on custom-built electronics, often featuring wireless connectivity and sensor technology. Wockel is the result of the experience Vention gathered in years of developing sensor-enhanced products for their customers. Vention's Glenn Kitzen explains: "As an R&D partner, Vention develops products for companies that want to integrate sensors into their product and also want to connect this to a smartphone or other Bluetooth product. Because we were basically doing the same development each time, we reversed the roles and developed a platform from which all these questions can be answered: the Wockel." Because the platform is developed from scratch, the customer gets all the benefits of a modular product without having to compromise on functionality or format, which is often an issue in modular systems.

By bringing together sensors, battery management, a microcontroller, and Bluetooth communication in one place and linking it to a customized application, the Wockel enables developers to almost immediately start collecting data for the validation of their product. After that, the knowledge gained can be combined with the Wockel platform to be incorporated into the final product. All in all, this brings an enormous time-saving. Kitzen: "By using Wockel, a developer is assured of a product that incorporates the latest technology, is supported by Vention in the integration with the rest of the development, and receives the care needed to move forward for years to come."

In short:

Wockel is a state-of-the-art IP platform and is ready to create custom products. It's the perfect start for the development of battery-powered Bluetooth Smart sensors and actuator-based products. A highly integrated can be produced faster while saving time and money on R&D. Wockel consists of:
• Battery
• USB and Wireless charging and data communication
• Internal data storage
• Low or high-performance IMUs
• An easy extension for other sensors and actuators
• Over the air firmware updates
• Hardware, embedded software, and an app are available

A prime example of Wockel, a bluetooth enabled, motion sensing wearable that detects *Freeze of Gait* symptoms with Parkinson's patients and triggers a cue to snap them out of the freeze, was developed by Cue2Walk and Vention. Using the Wockel platform, Cue2Walk was able to start testing with their demonstrator products in a few weeks. Additional actuators were easily added on the extension interface of the Wockel and additional application code and the algorithms of Cue2Walk were implemented. In the development of the final product all these components are integrated to create a fully custom product.

Key gains:
• Field testing was accelerated by 6 weeks
• Potential development cost saving: up to 25k
• Potential time-to-market saving: up to 4 months

Ask for a demonstration of the product at Vention, contact info@vention.nl or download the Wockel spec sheet [here]().