

## **Indoor localization with the Internet of Things**

Rotterdam, Netherlands – April 4, 2017 – Crownstone is a smart power outlet that uses Bluetooth Low Energy and a mobile app. The Crownstone plugs combine iBeacon proximity functionality with home automation functionality with respect to switching devices, dimming lights, and measuring power consumption. Moreover, by using multiple Crownstones the basic proximity function can be expanded to full-fledged indoor localization, positioning a user on a level of rooms. No need to get your smartphone out of your pocket to control the lights, just walking into a room with a smartphone in your pocket or a smart device around your wrist is enough.

Users do not always want to have the house responding automatically. Wall switches should still work. However, conventional switches cannot be used. They would power off the chips and make it impossible to control them wirelessly. Self-powered switches based on energy harvesting technology allow people to still use light switches in smart homes. The simultaneous use of self-powered switches and the control through smartphones enables maintenance free, easy-to-use applications for BLE-based lighting systems for worldwide usage.

### **Energy-harvesting wireless Bluetooth Low Energy switch module from EnOcean**

EnOcean, world leader in energy harvesting technology, developed a batteryless Bluetooth Low Energy switch module with Near Field Communication (NFC) for BLE systems using 2.4 GHz frequency. Thanks to the standardized PTM 21x form factor, switch manufacturers can integrate the new 2.4 GHz BLE switch module into their existing product ranges and the integrated NFC capability makes it easy to configure the switch through direct contact with NFC-capable devices. The PTM 215B switch module enables product manufacturers to develop reliable self-powered switching-applications for BLE-based lighting systems (2.4 GHz) for worldwide usage in smart homes and modern light control.

“We are pleased to see the growing use of our energy harvesting technology in more and more applications for lighting control and the Internet of Things (IoT) as it shows the importance of self-powered solutions. To further expand the ecosystem of products supporting our energy harvesting wireless solutions, we are happy that Crownstone integrated our self-powered wireless switch module PTM 215B with their BLE plug,” says Andreas Schneider, CEO at EnOcean.

## **The battery-free Internet of Things**

Combining such new technologies with EnOcean's more than 15 years of experience in energy-harvesting, ultra-low power wireless communication and energy management, EnOcean enables exciting new applications for customer's sensor solutions in the Internet of Things. EnOcean's Dolphin modules use the energy harvesting principle, in which energy is obtained from the surroundings, to enable self-powered wireless sensor networks. The modules are based on miniaturized energy converters that convert motion, light or temperature differences into electrical energy.

### **About Crownstone**

Crownstone is the manufacturer of (patented) BLE plugs and electrical switches that combine indoor localization with automation. The open-source aspect of the Crownstone technology makes it possible to not only integrate with products from multiple manufacturers, it also allows service providers to build services on top of the Crownstone infrastructure.

For more information, please visit [www.crownstone.rocks](http://www.crownstone.rocks).

### **About EnOcean**

EnOcean GmbH is the developer of the patented energy harvesting wireless technology marketed under the Dolphin brand. Headquartered in Oberhaching, near Munich, the company produces and markets maintenance-free wireless sensor solutions for batteryless applications in the Internet of Things, which are used for building and industrial automation, smart homes and LED light control. The EnOcean products are based on miniaturized energy converters, energy-efficient electronics and reliable wireless technology for a variety of standards like EnOcean, ZigBee and Bluetooth Low Energy. Leading product manufacturers have been relying on EnOcean wireless modules for their system solutions for the past 15 years and have installed the products in several hundreds of thousands of buildings around the world.

For more information, please visit [www.enocean.com](http://www.enocean.com).

### **Press Contact**

Anne van Rossum  
Crownstone  
T +31 (0)10 307 3955  
[anne@crowstone.rocks](mailto:anne@crowstone.rocks)  
[www.crownstone.rocks](http://www.crownstone.rocks)

Gina Klute  
EnOcean GmbH  
T +49 (0)89 67 34 689-76  
M +49 (0)160 908 117 29  
[gina.klute@enocean.com](mailto:gina.klute@enocean.com)  
[www.enocean.com](http://www.enocean.com)