



PRESS RELEASE

WePower Launches and Demos Gemns Energy Harvesting Generators at CES 2023

Gemns products are protocol-agnostic kinetic energy harvesting components for design into wireless IoT devices

Sagaponack, NY and Las Vegas, NV – January 3, 2023 – [WePower Technologies](https://www.wepower.com), a kinetic energy harvesting startup providing scalable and sustainable power solutions for wireless IoT sensors, transmitters, and related devices, today introduces their Gemns™ Energy Harvesting Generator (EHG) product line. The Gemns product line includes three distinct products, each of which use both permanent and oscillating magnets to harvest kinetic energy through electromagnetic induction: the Gemns G100 Integrated RF Switch, the Gemns G200 EHG, and the Gemns G300 EHG.

The kinetic energy transient provided by each of these Gemns products can be used to trigger a sensor, perform a reading, form a data packet, and transmit a radio signal with the range and reliability necessary to advance the RF communication needs of the IoT industry. WePower will be performing live demos with Gemns products at CES 2023 in Booth #10728 in the North Hall of the Las Vegas Convention Center.

Gemns EHG's Address Scalability and Design Challenges for Simple IoT Devices

With Gemns, WePower has pioneered a groundbreaking way to harvest kinetic energy that increases energy output from 100uJ to over 3mJ, with product lifespans exceeding one million actuation cycles. Manufacturers integrating Gemns products as components into their IoT devices will also experience new design freedoms, as end user access into the device for battery replacement will no longer be necessary.

“Perpetual battery replacement presents significant design challenges for wireless device manufacturers, and it’s a maddening and wasteful chore for end users,” said Mark Vena, Principal Analyst, SmartTech Research. “Gemns EHG's offer a high-powered alternative to batteries that should improve the scalability and longevity of small IoT devices.”

Product Details



Gemns products are protocol-agnostic across ISM, Bluetooth, LoRA, Z-Wave, Thread, and Matter standards, and will enable reliable, large-scale deployment of wireless sensors and transmitters in industrial, automotive, smart home, smart office, smart city, and aerospace applications.

- **Gemns G100 Integrated RF Switch** - A wireless industrial push button, the G100 has been tested to over 1 million activations and has served as the initial proof of concept for the growing Gemns product lineup. The G100 includes space for Gemns' energy harvesting circuit and another PCB that would typically be the transmitter. Anticipated applications beyond industrial will include automotive, smart home and city, and aerospace.
- **Gemns G200 EHG** - The workhorse of the Gemns lineup, this is our most powerful EHG. Initially designed for industrial IoT applications in safety and limit switches, the expected applications where the G200 will excel include automotive, home/office IoT, and other higher energy applications.
- **Gemns G300 EHG** - A high-output device that requires less force to activate, making it useful for consumer products in lighting and smart home devices, as well as in future IoT products where new activation methods will be explored.

Gemns EHGs are patented components that are embedded into products across a wide spectrum of industries. WePower will demo Gemns in prototype case uses during CES. One demo is a wireless and batteryless water sensor that floats in the toilet tank harvesting energy to power communications on the health of the toilet. In another case use, WePower will show how Gemns EHGs power Bluetooth sensors and devices through motion. See the demos at CES 2023 Booth #10728 in North Hall LVCC or learn more at wepowertechnologies.com.

About WePower

WePower Technologies LLC. develops energy harvesting solutions for wireless data transmitter applications in industrial, automotive, smart home, smart office, smart city, and aerospace markets. WePower proprietary Gemns™ Energy Harvesting Generators use electromagnetic induction to capture kinetic energy and convert it into electricity at a voltage level far greater than existing EHGs, eliminating the need for wasteful batteries and improving both the range and signal strength of RF transmissions. Learn more at wepowertechnologies.com.

About Gemns

WePower patented technology and Gemns™ EHGs use permanent magnets for field shaping and concentration to harvest orders of magnitude higher energy output than any other kinetic energy harvesting technology on the market, facilitating greater functionality, reliability, and range. Gemns EHGs provide energy on demand to enable self-powered IoT sensors that can communicate via wireless standards such as Bluetooth, LoRA, Z-Wave, and Matter, and can be seamlessly integrated into IoT applications.



Press Contact:

WePower Technologies Caster Communications, Inc., 401-792-7080

wepower@castercomm.com