

Breakthrough Mind-Reading Wearable Device to Launch in 2020 with Help from Protolabs' Cool Idea Award

The nūrio EEG device allows users to visualize mental activity via corresponding app and control IoT devices with brain waves

MINNEAPOLIS, MINN.—Nov. 12, 2019—Digital manufacturing leader [Protolabs](#) (NYSE: PRLB) today announces that [nūrio](#) has been selected as the latest Cool Idea Award winner for innovation in consumer technology.

Nūrio is the world's smallest wearable consumer EEG device that simply slips over the ear like a headphone and provides consumers with app- and cloud-based command capabilities to control any IoT-enabled device integrated on the nūrio cloud, comparable to Alexa Skills, with just their brain waves – no voice commands required.

Nūrio streams data collected from users' mental activity via Bluetooth to any smartphone, enabling consumers to visualize their brainpower and valuable health insights on the nūrio mobile app.

"We aim to provide the world with access to their mental data to help better understand the previously mysterious mind," said nūrio founder and CEO Ian Rowan. "We're entering a new era of leveraging the mind to control the connected world, no matter of a person's physical abilities."

As the wearables industry continues to proliferate, nūrio believes opportunity lies in looking at data from new angles to reveal insights into what's going on in various parts of our bodies and optimizing our health in completely new ways.

Another key element for adoption is keeping costs down as much as possible so that this technology is accessible to the general population. With the help of Protolabs' Cool Idea Award, nūrio has been able to significantly expedite production, putting the device on-track to come to market in mid-2020 for under \$229 USD.

Protolabs also helped manufacture the full plastic casing of the nūrio device with injection molding. In the future, nūrio will also work with Protolabs to produce its own essential electrodes via CNC machining once the design is complete.

"Nūrio's technology has the potential to completely redefine the quantified self and even tap into human capabilities that previously seemed impossible," said Vicki Holt, President and CEO of Protolabs. "We're proud to support such innovators who are giving people the ability to leverage their brain power in new and helpful ways."

About Protolabs

Protolabs is a leading digital manufacturing source for rapid prototyping and on-demand production. The company produces custom parts and assemblies in as fast as one day with automated 3D printing, CNC machining, sheet metal fabrication, and injection molding processes. Its digital approach to manufacturing enables accelerated time to market, reduces development and production costs, and minimizes risk throughout the product life cycle. Visit protolabs.com for more information.

About nūrio

Nūrio has developed one of the world's smallest EEG wearable devices to become a pioneer in the cognitive revolution. Backed by powerful software, nūrio provides a new, in-depth look at the activity of the mind anytime, anywhere. Additionally, nūrio utilizes powerful AI algorithms to allow users to transform thoughts into commands for the world of IoT devices. This proprietary architecture, allows Brain-Computer Interfaces to control nearly any internet connected device. Nūrio continues to research and innovate in order to provide more impactful mental health insights and the next generation of device control. By creating a device that is minimal, affordable, and powerful nūrio can allow anybody, regardless of ability, the opportunity to control their connected world and finally begin to understand the activity of the most important part of themselves, the mind. To learn more, go to www.nurio.info.

How nūrio works

Nūrio packs the most recent EEG technology into one of the smallest wearable devices to hit the market. The device is about the size of a headphone with affordability that can allow anyone with a smartphone the ability to feel comfortable tapping into the power of their mind. The device has been designed to utilize three fully shielded dry skin electrodes along with minimal on-device electronics to stream data via Bluetooth to any smartphone. This allows for the more powerful processors on the smartphone to leverage the data yielding an energy-efficient, safe and minimal wearable which provides unseen insights.

Device data is instantly processed with the nūrio app to provide health insights as well as practical control features. The app provides users with powerful streaming metrics about their mental health/state such as attention, calmness and emotional levels. All metrics are derived from raw EEG data using in-house algorithms based on years of neuroscience research studies. The app also allows the ability to record sessions of these metrics -- this can be used to graph insights of attention during any focus-based task, calmness during meditation, or emotions during any type of performance or experience. Finally, nūrio utilizes machine learning to develop baselines of the users' mental states to help alert them to changes over time.

The other main component of the nūrio device is the ability to control internet-connected devices with the mind. Users can add compatible IoT devices to their profile, record approximately one minute of thoughts based on that object, and leave it to the powerful nūrio AI algorithms to process their future waves into actionable commands. After set-up, the user can simply blink twice to trigger the device to begin recording a thought, then sent to nūrio servers which process the raw wave into the user's device, and finally the device is triggered or the user is prompted to

confirm a command with a blink based on configuration. All of this typically happens in under two seconds.

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