

OPENBCI

2016 Nominet Trust 100 Winner

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2016

DEMOCRATISING NEUROTECHNOLOGY

Project URL: <http://openbci.com/>

Project Twitter: [@OpenBCI](https://twitter.com/OpenBCI)

- Health
- Open Source
- Physical Computing

Tony Quann is one of the most celebrated graffiti artists in the world. Known as Tempt One, his style of writing has won him legions of fans the world over. Quann's career, and health, however took a turn for the worse when he was diagnosed with Amyotrophic Lateral Sclerosis (ALS) in 2003. The disease caused him to be paralysed, except for his brain, and his eyes.

A decade ago, Tony would have not been able to continue to create art. But thanks to a new wave of neuroscience hackers and makers, he has been able to produce work for many more years. In late 2013, a Brooklyn-based designer duo Joel Murphy and Conor Russomanno introduced OpenBCI – an open source brain-computer interface that allows anyone to connect their brain to a computer and read the electric activity within. The hardware and software are completely open to hacking to form new applications.

Quann's friends did just that – unable to watch their graffiti hero suffer, they teamed up with a group of developers to create EyeWriter. Using OpenBCI's open source platform and their 3D-printed headset, the EyeWriter gave Quann a new way to draw – with his eyes.

The project is just one example of neuroscience work that's possible thanks to OpenBCI. The EEG headset starts at \$449, works around Texas Instruments' analogue-to-digital converter and the sampling rate is so high that the creators say the EEG is 'research grade' – on par with medical equipment.

Originally funded by DARPA and requiring some engineering and programming skills, the creators say that "our mission is to lower the barrier of entry so that even amateur developers can get up and running right away". There are a number of products available, together with open source software and code. Take a look at <http://openbci.com>

Image courtesy of Max Heidelmann

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