

Melon focus headband turns to Kickstarter for rollout plans

May 17 2013, by Nancy Owano



(Medical Xpress)—What if the quality of your work depends more on your focus on the piano keys or canvas or laptop than your musical or painting or computing skills? If target users can be convinced, they will make generous use of the Melon headband with its three electrodes placed against the forehead to track their mental concentration. This is a Kickstarter project. The Melon makers set a \$100,000 goal to effect a full production run. At the time of this writing, they drew in \$109,739. What is being offered is a headband and mobile app designed to help the



person measure concentration and understand the person's focus highs and lows and try to improve.

The headband uses <u>electroencephalography</u> (EEG) to monitor <u>brain</u> <u>activity</u>. "Melon measures this global electrical activity by placing three electrodes on the forehead region, with the primary electrode on FP1. This allows Melon to monitor brainwave activity in the pre-frontal cortex," according to the makers. Melon partnered with NeuroSky in <u>EEG technology</u>. The NeuroSky chip is embedded in the device. "We have partnered with a top producer of <u>EEG signal</u> processing chips to access the best available algorithms for mental state detection."

According to Melon's team, the NeuroSky chip being used filters out the ambient waves present in most uncontrolled conditions and measures <u>neural activity</u> in any condition with 96% accuracy relative to similarly configured research grade EEGs.

The headband has a molded rubber exterior lined with neoprene. The headband is charged using micro-USB and it lasts about eight hours on a single charge.

As for the smartphone app, the user tells Melon what the activity is, and it will learn how well you focus on that activity. Melon's app delivers personalized tips (optional) when your focus dips too low (e.g., "Try taking deep breaths"). Insights appear at the ends of sessions and are stored as trends. The Melon team plans to make a SDK available for developers.

The price, at a Kickstarter introductory discount, starts at \$79. Melon's team are Arye Barnehama and Laura Michelle Berman, former cognitive science students at Pomona College, and lead electrical engineer, Janus Ternullo.



More information: www.kickstarter.com/projects/8 ... p-to-measureyour-fo

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Citation: Melon focus headband turns to Kickstarter for rollout plans (2013, May 17) retrieved 4 May 2024 from <u>https://medicalxpress.com/news/2013-05-melon-focus-headband-kickstarter-rollout.html</u>

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