



EmotiBit is a wearable open-source sensor for capturing high quality emotional, physiological and movement data | Photo source [Connected Future Labs](#)

Innovation > Health & Wellbeing > A biosensor that can measure emotional data

## A BIOSENSOR THAT CAN MEASURE EMOTIONAL DATA

 HEALTH & WELLBEING

### A new wearable, open-source biosensor can help users track and display emotional data, along with physiological data

**Spotted:** In current times, large numbers of people are wearing smart fitness products that record biometric data. These products can be used to track various health and fitness metrics, from calories and water intake to steps, heart rate, sleep cycles and even menstrual cycles. Now, startup Connected Future Labs has developed a wearable sensor, called EmotiBit, that captures not only physiological data but emotional data as well.

The company claims that the EmotiBit will open the door for researchers, makers, artists, students, teachers, athletes, virtual reality developers, and health enthusiasts to develop new products based on sensing signals from the body. For example, Future Labs suggests EmotiBit could be paired with an LED matrix to display the wearer's heartbeats on their sleeve, or combined with an audio generator to sonify emotional reactions.

EmotiBit works with the Adafruit Feather and Arduino ecosystems, making it fully hackable and programmable. Moreover, unlike other smart biometric products, which hope to monetise users' health data, EmotiBit gives users complete ownership over their data. The device wirelessly streams more than 16 channels of data from the body. EmotiBit sensors include electrodermal activity, 3-wavelength PPG, 9-axis IMU and body temperature to derive data on emotional arousal, heart rate, respiration, gestures, movements and more.

Sean Montgomery, the founder of Emotibit, told Springwise that his goal is to “unlock[ing] human potential.” He adds: “Beyond the immediate benefits for health and wellness, tools like EmotiBit may help understand human emotions, empathy, and even augment our cognition. I want more voices to be a part of that conversation, which is why I’m a proponent of affordable, open-source tools.”

Wearable biosensors are nothing new, although EmotiBit's approach is much more appealing to those who are interested in creativity and concerned about data privacy. In fact, at Springwise, we

have covered a number of fascinating innovations in biosensor technology. These range from a wristband that monitors **blood cell** count, to a bio-sensitive **tattoo** and most recently, a **face mask** that can alert wearers to hazardous air.

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### **Takeaway:**

The low cost (around €199) and open-source nature of EmotiBit could open up whole new areas of research and entertainment. Montgomery has said that one of his goals is for more voices to be a part of the conversation around biometric sensing. The affordable EmotiBit could certainly open up the field to many more people, allowing a greater synergy between art and science and bringing open-source principles to the field of brain-computer interfaces. This, in turn, could lead to more rapid and creative developments in the field. The EmotiBit launch is currently live on Kickstarter.