# Blocks will go beyond just imagining a snap-together smartwatch

October 20 2014, by Nancy Owano


"Imagine countless blocks of cutting-edge technology, which you can snap together to build your own personal, unique wearable device..." such is the beckoning call of a modular concept in smartwatch assembly—not by the technician in a factory but by you, the owner. Just as the modular piece concept gained media attention with Google Project Ara, a team of engineers and designers behind Blocks have been working to provide a smartwatch wearable in customizable blocks form.

Based in the UK, they are working with partner companies in France, Germany, Italy and the U.S. to bring their smartwatch to market. Blocks will launch a crowdfunding campaign in the spring of next year and will ship towards the end of 2015. During crowdfunding, takers will be able to buy the core block with a rectangular display and any number of peripheral modules: extra battery block; heart rate block; Sim card block (GSM); microphone block; location block (GPS); and contactless payments block (NFC). Types of modules won't stop there, said the team; they plan to produce and release other modules. "The beauty of blocks is that it is an open platform: private companies, researchers and a community of developers are working on creating new Blocks that you will be able to upgrade to in the future," according to Blocks. As Matt Hill in Gizmodo put it, "Google Project Ara for smartwatches – so you buy a "core" block with lots of blank links that can be snapped out and replaced with ones that actually do stuff."

Every smartwatch will need a core block: a display that embeds a processor, a motion sensor and Bluetooth. The core block forms a device comparable to other smartwatches and will support features such as read notifications, text messages, emails and calendar alerts from your paired smartphone or track sleep and activity.

Their concept includes a blockstore fueled by companies and engineers, for components that you snap together to build your smart watch.

Speaking about its origins, designer Hakeem Javaid blogged that the group had predicted smartwatches would be the next big thing in tech; they wanted to build one but could not decide which sensors to include.

"Should we focus on gesture control? Health sensors? A mix of both? But then it hit us. Why not let the user decide?" Considering the concept of modular smartphones, they decided that modularity was the way to go— Phonebloks applied to wearables, blocks that snap together for a

personalized smartwatch. The team built a simple display, processor, motion sensor and temperature sensor blocks, to connect in any combination. Another notable feature, Javaid said, is that they made modules that are modular. "What does that mean? Each block has a removable cover; the look is further customizable." The concept also includes an open design store.

According to CNET, the modules get removable covers; you not only customize the look, but also the functionality, of the device, even swapping out which modules the watch carries on a daily basis. "As for where these modules all fit, they make up the links of the bracelet." CNET said, "Proposed modules include rectangular and circular touchscreen faces; an E Ink face, a la Pebble; microphone; motion sensor ; gesture control; GPS; heart monitor; blood oxygen monitor; environment sensor; fingerprint scanner; audio jack; camera; extra battery; concealed USB stick; NFC chip for contactless payments; flashlight; programmable button; SIM port; and kinetic charging."

The team built a prototype and entered in Intel's Make It Wearable challenge. They were one of the top 10 finalists, which provided money to sustain the project. "Having gone very far with the hardware and design of Blocks, we're now focusing more on the software side," said Javaid. "We're currently aiming to base our OS on Samsung & Intel's Tizen OS, and are working towards supporting Android, iOS and Windows Phone."

Javaid said, "We are excited to be working alongside Phonebloks." The latter succeeded in the goal to show the mobile industry the need for change; Phonebloks do not have plans to build a mobile phone themselves; they are now an independent organization. They said their mission is to help the mobile phone industry steer development and production that produces less electronic waste than their products do today. "The first, and perhaps biggest step for us, is to aid the existing

industry in steering away from manufacturing products that are sold and repaired or replaced as whole-widgets, to products that are modular. And in that, also easy to repair or upgrade without the need for whole widget replacement. This will increase the life-span of the product, at the same time as reduce waste."

**More information:** www.chooseblocks.com/