A smarter sock: Sensoria will watch how you step (w/ Video)

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(Phys.org) —Get set for a fitness market buzzword likely to get louder in 2014, the quantitative self. Sensors embedded in wearable items communicating data via Bluetooth to people's watches, smartphones, and tablets will be promoted to help athletes and workout enthusiasts track how well they are doing and how well they ought to be doing, and will take various measurements along the way. The expectation is that the fitness-prone consumer, more and more aware of all that can be known about technique and competency level, will be motivated to buy such wearables, using them as quantitative tools to achieve fitness goals. A new force set to play in the fitness niche is a Redmond, Washington startup called Heapsylon.

This is a company focused on smart-fabric enabled wearable devices for health and fitness. The entire product line includes washable t-shirts and sports bras with heart-rate monitoring capabilities as well as smart socks. Attracting much media attention lately is particularly its prototype smart sock system. The offering is the Sensoria sock, a three-part item consisting of washable smart sock, electronic anklet that magnetically snaps on the cuff of the sock, and mobile application that not only monitors but can guide the user's steps and pace with realtime audio cues. The anklet gathers data from the sock sensors which via Bluetooth is sent to the user's Bluetooth-enabled smartphone.

Davide Vigano, cofounder and CEO, said that users who go running with their phones, can get information in realtime. The information is designed to help the user do better and avoid injuries. You can check to see how far, how fast, and how many calories you burn in the run, for example, and you also can learn how your foot is striking the ground.

This is where the Sensoria smart sock is a standout in fitness tracking devices. According to the company, current small portable trackers "are not always reliable; they are easy to lose or forget and are in general limited to measuring steps and calories." The Sensoria system can behave as a virtual coach, letting the user know what may be wrong in foot landing techniques or even if the user is overdoing it. The heads-up notices can help users avoid setbacks in injuries.

Vigano and team have turned an ambitious technology focus upon the foot for good reason: "There are 25 million active runners in the US. Well over 60 percent of these runners get injured every year," according to the company. "Additionally, 70 percent of all people that go running suffer from a range of foot problems, often requiring insoles or orthotics. Illness, injury and foot-related problems require an in-house or office foot pressure monitoring device."

The company plans a release date of the socks to be in March 2014. The team is looking ahead to the launch when the anklet will have more color options, including pink or light blue. The team is also looking to make the anklet smaller.

Heapsylon's overall message is that "In the near future most pieces of clothing will come with embedded microelectronics and sensors. Our vision is that 'The Garment is the Computer.'"

More information: www.heapsylon.com/
www.heapsylon.com/sensoria-fitness/
angel.co/heapsylon-sensoria-wearables