

Sensovo: Geocaching with a sixth sense

The England and Germany based startup company Sensovo is developing a tactile navigation belt that allows finding caches by only using vibration to indicate the direction. The belt grants the wearer a “sixth sense” of navigation when using it regularly and can be used in all weather conditions. It is Muggle-proof as it can be worn under the clothes.

The team of Sensovo consists of four active geocachers. The founder, Jan Walter Schroeder had the initial idea of a navigation belt in 2010 during his PhD studies at Bournemouth University in Biomedical Engineering. He built a device to help patients with sensation loss in their feet to improve their balance by giving them vibration feedback. As this feedback can be also used for indicating the direction to any target, the idea was born to develop a tactile belt for way finding.

It was 2 ½ years later, in 2013, when Walter invited his fellow students Manuel and Rashid, both PhD candidates in the field of Data Mining at Bournemouth University to set up a company with the goal to bring the navigation belt to market. Later that year Uli, another former student companion of Walter joined the team. Uli (Ja/UI) is an active geocacher from Germany with over 800 caches found, 24 amongst those are T5. Rashid, Manuel and Walter are also geocachers and have mainly cached in Dorset. Because of this fact, and considering the advantages of the belt for geocaching, the choice of the belt’s first target audience was straightforward.

In 2013, soon after the foundation of the company, Sensovo won the European Space Agency Innovation (ESA) Price 2013 which allowed them to collaborate with ESA and get initial funding for their idea. Since then Sensovo has won several other competitions and was awarded further funding.

Sensovo’s navigation belt working principle is simple. First users establish a bluetooth connection to their smartphone. To start the navigation they need to import cache coordinates from an app of choice, such as the popular c:geo app or enter them manually to the Sensovo Geocaching app. After this the navigation towards the desired target is activated. Sensovo’s navigation belt has a GPS sensor to identify the direction to the target and eight vibration motors around the belt to guide the user in respective directions. For instance, when the user needs to turn left, the appropriate motor vibrates and he or she feels a vibration on the left side. Currently Sensovo is getting its product ready for the first round of beta-testing. The geocaching app has been developed and tested, the belt hardware is being finalised.

Working principle of Sensovo’s navigation belt using c:geo to send coordinates to the belt. The belt then vibrates in the direction of the geocache.

The company’s goal is to enhance the experience of Geocaching. For this purpose, their belt will offer numerous advantages to conventional navigation devices. It is worn under the clothes, which allows discreteness from Muggles, but also more independency from the weather conditions. The belt also gives the user the ability to focus on the environment rather than the navigation device and it provides a fast and intuitive way of navigation. Another benefit is making it easier to combine caching with other activities, such as cycling or jogging.

Sensovo is currently looking for beta-testers and Input from geocachers to adjust the device to the needs of the community. If you are interested you can subscribe to their newsletter at www.sensovo.com or write them directly to rashid@sensovo.com

