Veera needs help finding lost treasures

Have you ever wondered where misplaced items go? Futurice hopes it isn't very far, and needs your help in figuring out where they went. The aim of this project is to create a device for finding lost library books.

You will have to scan RFID tags of books placed on shelves. The starting point for your task is to take an existing hand scanner and figure out how to attach it to an autonomous robot named *Veera*. This project will be in collaboration with Oodi - the Helsinki city library, and your contribution will ideally make their inventory system more efficient.

Futurice will provide you with access to an RFID hand-scanner for testing purposes. Before going too far down the rabbit hole, you will need to create a quick-and-dirty prototype to test the capabilities of the provided scanner, and decide if it is suitable to the task or if an alternative is necessary. Furthermore, this project may be extended with route- and mission planning for the MiR 200 autonomous robot platform. Test time with the actual robot needs to be arranged ahead of time, and is usually limited to half-days.

The contact person representing Futurice will be Wilfried Bock. Futurice's mentoring capability includes know-how in the fields of SW-design, service design, project management, 3D design and prototyping, robotics, electrical engineering, and flexible sensing methods.

Team skills needed:
The hardest part of this project will be **software development**; interfacing with the RFID scanner, storing and recalling book locations, and figuring out how to locate books as accurately as possible. Further knowledge that would be needed is concepting and problem solving; finding edge-cases such as books being scanned through walls, or dealing with physical size constraints.

Keywords: RFID, robotics, 3D printing, front-end, back-end, indoor object localization

Contact:
Wilfried Bock

+358 46 922 6000
wilfried.bock@futurice.com
UX / Interaction Designer · Futurice Oy
www.futurice.com · twitter.com/futurice