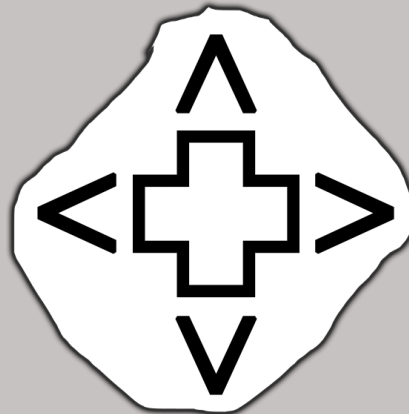# THE Port - Hackathon at CERN

Infrastructure-less Hospital Navigation & Transportation

Summary:

Navigation of individuals as well as optimization of transportation in the complex 3D structure of hospitals is a challenging task. Existing systems use different kind of infrastructure to allow location and tracking with the disadvantage of high setup costs and times as well as the risks of constantly changing technology. Solving the main tasks with the already existing infrastructure is therefore extremely desirable.

Goals:

Prototype a system that improves the individual localization and navigation in hospitals and provides general but also individual navigation instructions. Avoid or minimize the use of any additional infrastructure, hardware dependencies and makes sure the system offers enough dynamic flexibility to cope with functional or structural map changes. How can this system be used to optimize the transportation of patients and goods with the available resources and while respecting all the data privacy issues connected to hospitals?

Resources:

Expertise in human machine interfaces, electromagnetic fingerprinting, visual identification of tags and faces, embedded electronics development – interdisciplinary team including physicists, mobile and web software developers and a logistics expert.

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