

## Reference for Indoor Location Systems

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### **Abstract**

*In this paper, we describe a positioning system module which is designed to provide reference coordinates for various indoor positioning experiments. The heading and travelled distance of the system are measured using a micro electro systems based gyro and a electronic magnetic compass, respectively. From the measurements, the position of the system module is obtained using diferent algoritms. We present error analysis of the sensors in use, on-line calibration procedures needed to obtain accurate position estimates, and finally positioning results from a test drive.*