

Indoor Localization using BLE MIMO

Chunshui Zhao

Microsoft Research Asia
Building 2, No. 5 Dan Ling Street, Haidian District
Beijing, P.R. China, 100080
Chunzhao@microsoft.com

Feng Zhao

Microsoft Research Asia
Building 2, No. 5 Dan Ling Street, Haidian District
Beijing, P.R. China, 100080
Zhao@microsoft.com

ABSTRACT

In this paper, we proposed a BLE MIMO system to detect mobile device 3D orientation. We will deploy the MIMO system on the ceiling. The system can provide directional information to mobile phone. So with height of ceiling information, we can localize mobile device with BLE chip in 2D map. The system don't

require modifying the Bluetooth Low Energy standard. So, we will use commercial mobile phone to attend the competition.