

# Mobile Wayfinding

By MacroKinetic

# ISSUES

Get lost in grant indoor area?

Without GPS, how you locate yourself and find your target?



# SOLUTION

## By Bluetooth 4.X or iBeacon Technology Ranging Feature

Bluetooth 4.X or iBeacon enables users to detect movement in-and-out of range of the beacons, ranging provides a list of beacons detected in a given region, along with the estimated distance from the user's device to each beacon. Ranging works only in the foreground but will return (to the listening device) an array (unlimited) of all iBeacons found along with their properties (UUID, etc.)

An iOS device receiving an iBeacon transmission can approximate the distance from the iBeacon. The distance (between transmitting iBeacon and receiving device) is categorized into 3 distinct ranges:

Immediate: Within a few centimeters  
Near: Within a couple of meters  
Far: Greater than 10 meters away

An iBeacon broadcast has the ability to approximate when a user has entered, exited, or lingered in region. Depending on a customer's proximity to a beacon, they are able to receive different levels of interaction at each of these three ranges.

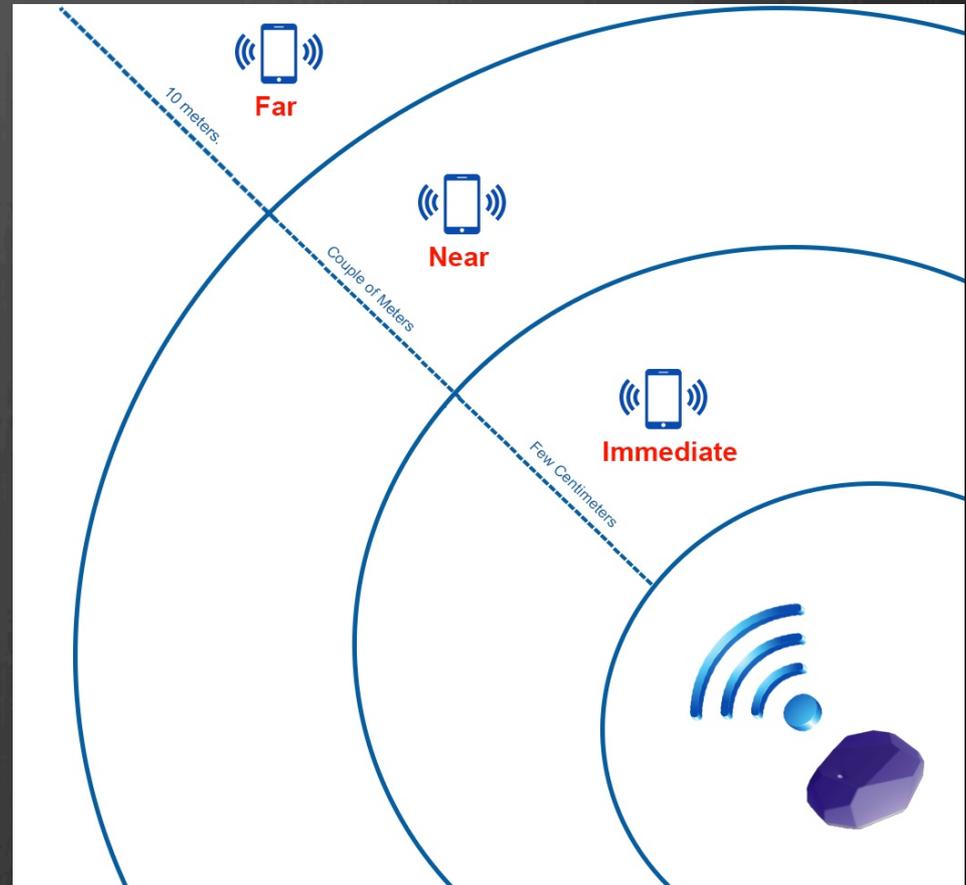
The maximum range of an iBeacon transmission will depend on the location and placement, obstructions in the environment and where the device is being stored (e.g. in a leather handbag or with a thick case). Standard beacons have an approximate range of 70 meters. Long range beacons can reach up to 450 meters.

# SOLUTION

By unique UUID, we can estimate user location, and push corresponding information to user mobile over app.

Applications:

1. Wayfinding and Locate
2. Marketing and Promotion
3. Security Check-Point



# SOLUTION

Traditional ibeacon devices requires battery powered.  
It requires to replace by hand if battery dead and consumes many man power.

Introducing new solution in combination of lighting fixtures and ibeacon technology.

Power supply build-in bluetooth controller.  
It can drive 2 channels 0-10V lighting fixtures and also act as ibeacon devices.

Advantages:

- 1) No need to replace battery for ibeacon devices
- 2) Multi-function - ibeacon plus lighting fixture driver
- 3) Finland design with quality

Compatible devices:

- iPhone 4s or later
- iPad 3 or later
- iPod Touch 5th gen or later
  
- Android 4.4 or later devices with full BT 4.0 support

