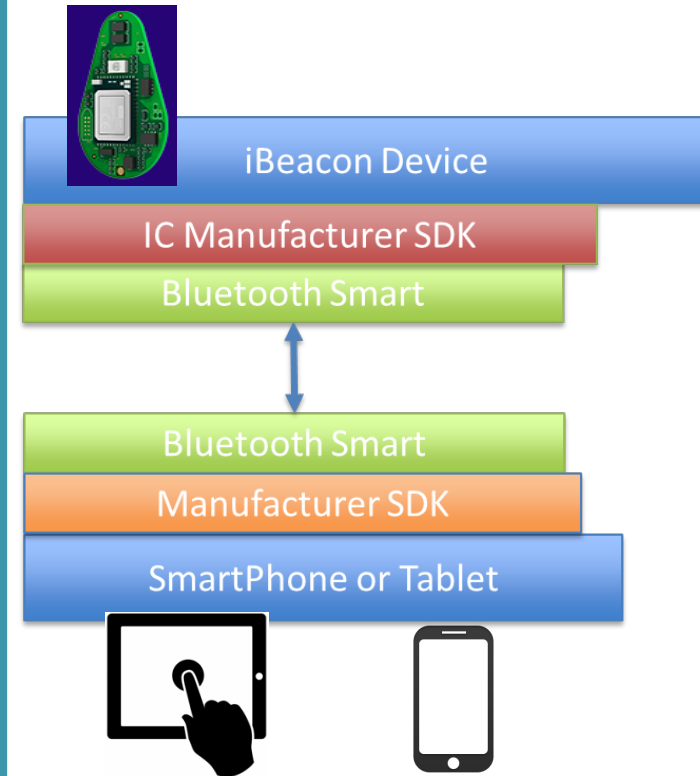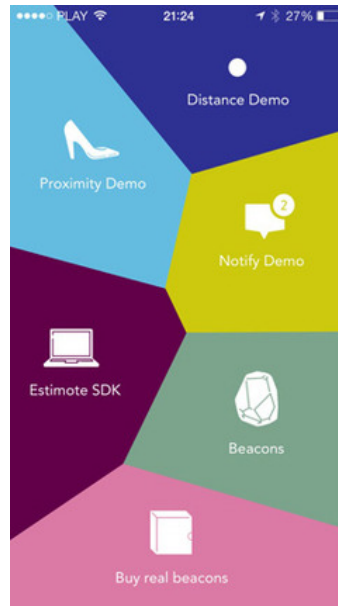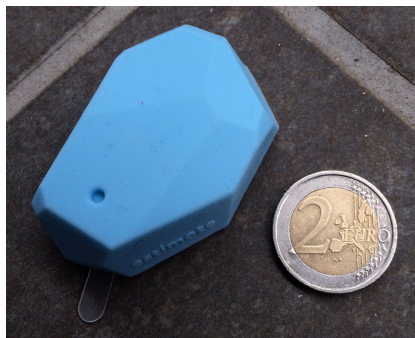- The distance between the Smartphone and the iBeacon device can be measured.
- If the Smartphone is near to an iBeacon device, ads can be received.
- The Smartphone is capable of receiving notifications from the iBeacon devices.
- The iBeacon can be configured to provide the desired information.

iBeacon Device

IC Manufacturer SDK

Bluetooth Smart

Bluetooth Smart

Manufacturer SDK

SmartPhone or Tablet

Hardware modules

The Estimote iBeacon device

The Estimote Stickers

DESIGNING AN iBEACON PRODUCT

HOW TO

1. Download and install the Estimote App for testing that your iBeacon device is properly working.
2. In your iBeacon device, configure the values: *proximityUUID*, *major* and *minor*, by using the previous App.
3. Download the Estimote SDK.
4. Create a project for iOS or Android.
5. Configure the environment.
6. Write the source code and test your App. The distance between the smartphone and the iBeacon will be periodically updated.

commercial example

Zurich-based app BLINQ uses contextual intelligence and the physical spaces of bars and nightclubs to better connect people.
"We use Estimote beacons to connect our users in real-time at bars and nightclubs. We see huge potential in bringing people together in the right context. That's where Estimote comes in with their technology".

EXTENSIONS

- A proximity App can be easily developed. Ads will be provided to the user depending on the distance between the smartphone and the iBeacon device.
- An App with notifications can be easily developed. As an example, the user can receive a notification with a coupon of 20% off for a previous observed product.

Security

The communication is always secure and protected since the Bluetooth Core Specification provides several features to cover the encryption, trust, data integrity and privacy of the user's data.

Scalability

Several iBeacon devices can be discovered by the same App when they are in the range. However, the identified devices can be filtered by defining the region values.

Portability

iBeacon is compatible with the following devices:
- iOS devices with Bluetooth 4.0.
- Android 4.3+ (e.g. Samsung Galaxy S3/S4/S4 Mini, among others).
- Windows Phone devices with the Lumia Cyan update or above.