

How to Configure your iPhone as an iBeacon Transmitter



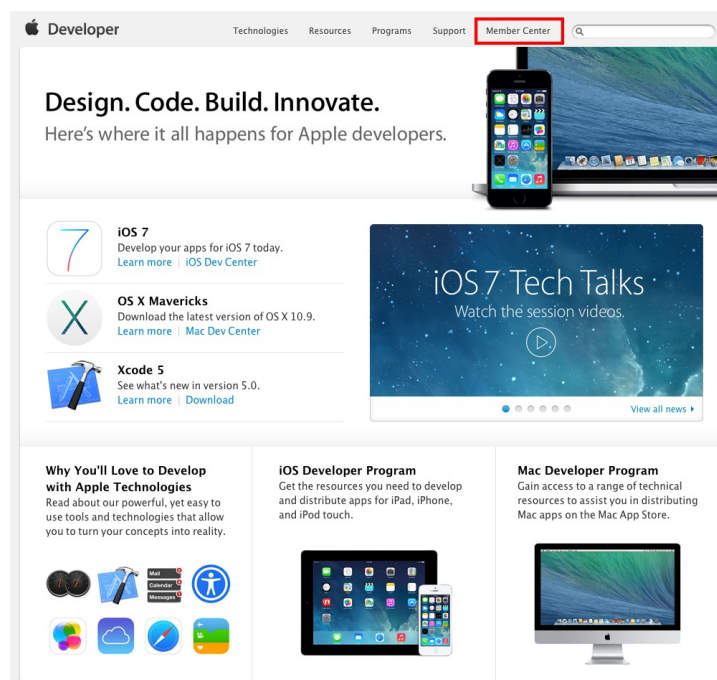
PassKit

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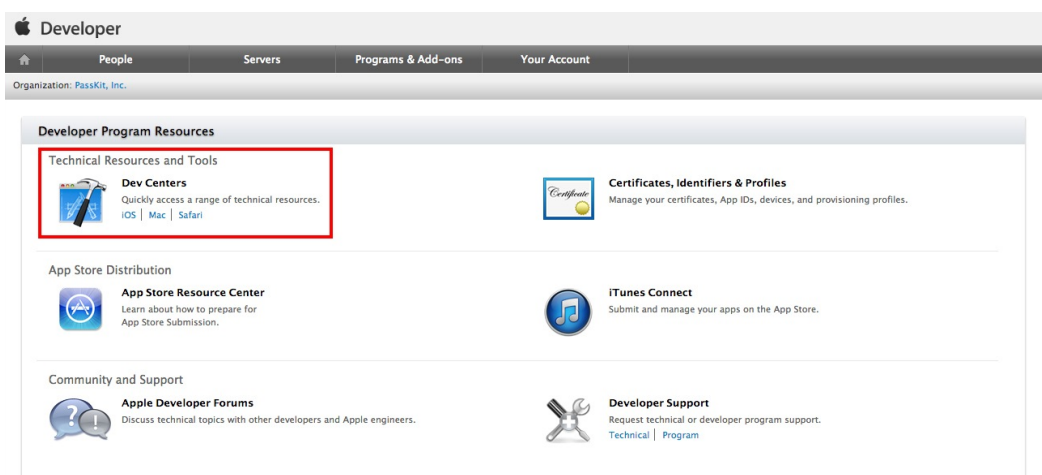
iBeacon transmitters have the capability of sending specific information to nearby devices based on location. It is a great way to transmit targeted information to users and is already being implemented in retail stores and stadiums. A cool feature of iBeacons is that iPhones can be configured to be an iBeacon transmitter.

This guide will show you how to configure your iPhone as a beacon. Any iPhone 4S or later that runs on iOS7 can be configured to act as an iBeacon transmitter. Please note that in order to accomplish this, you will need to be part of Apple's Developer Program and have Xcode installed on your computer.

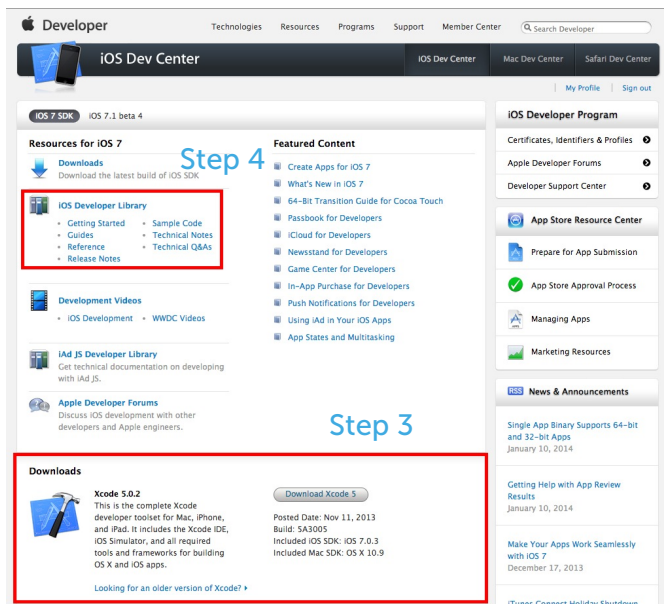
Step 1: Visit <http://developer.apple.com/> and click on "Member Center" in the top right navigation. If you haven't logged into your account, do so now.



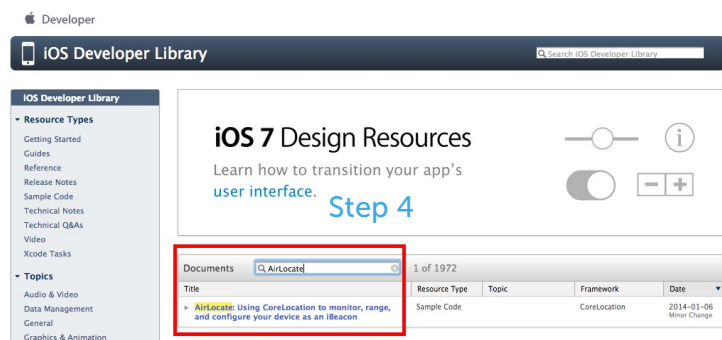
Step 2: Once you're logged in, navigate to the "Dev Centers" on the left and click on "iOS". This will take you to the iOS Dev Center page.



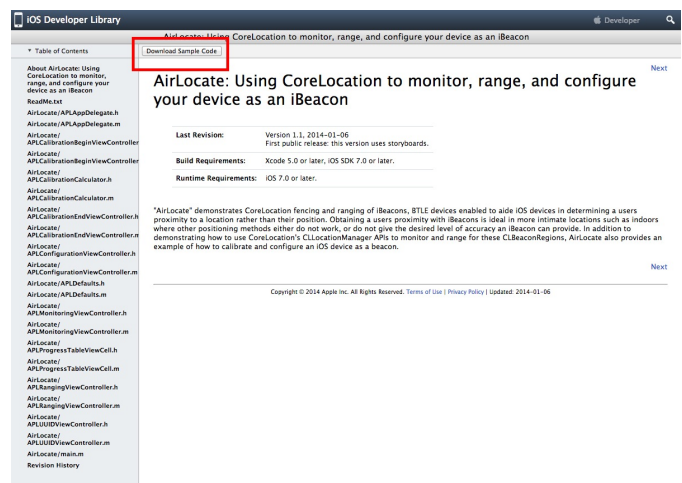
Step 3: If you haven't downloaded Xcode, please download it now. Skip this step if you have already downloaded Xcode.



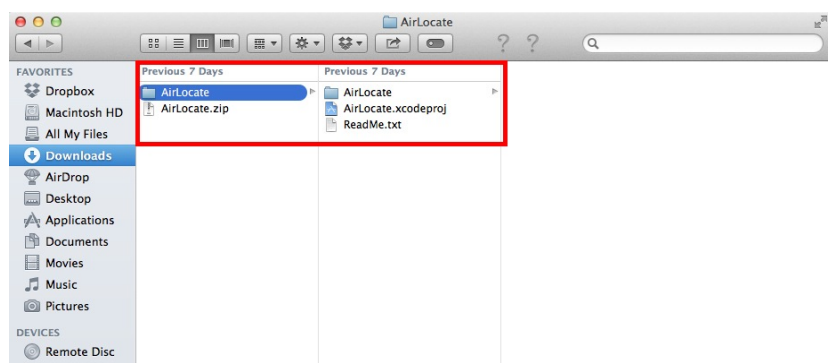
Step 4: Under the Resources for iOS 7 section, click on "iOS Developer Library". In the search bar, type in "Airlocate" and click on the link "Airlocate: Using CoreLocation to monitor, range, and configure your device as an iBeacon".



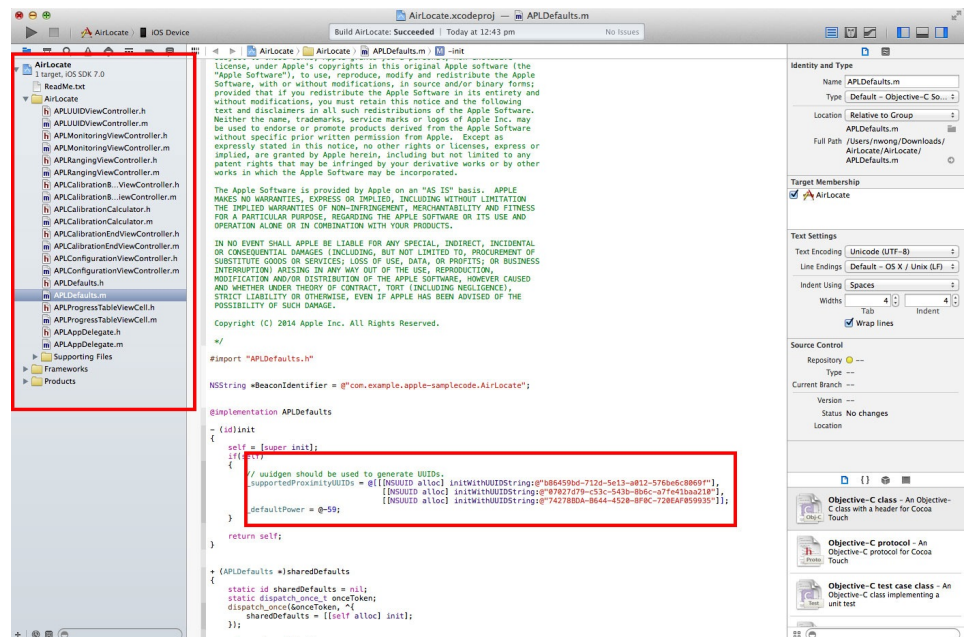
Step 5: Click on the "Download Sample Code" button at the top of the page to get access to the code.



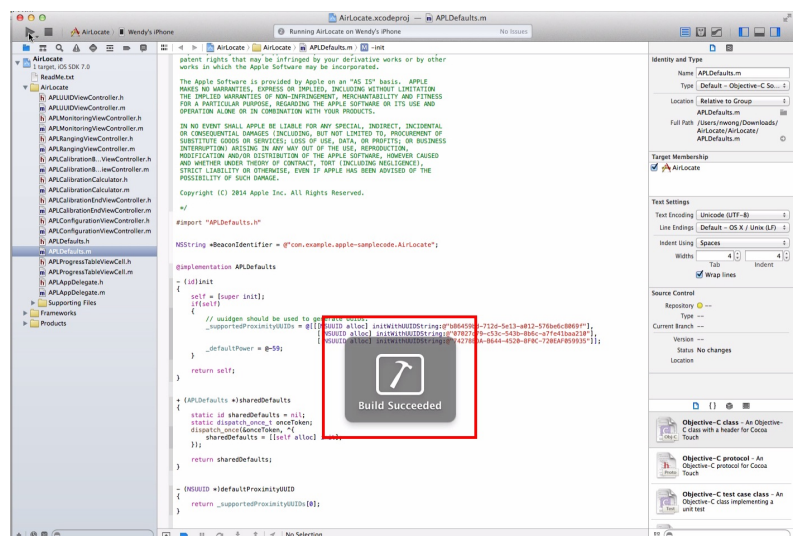
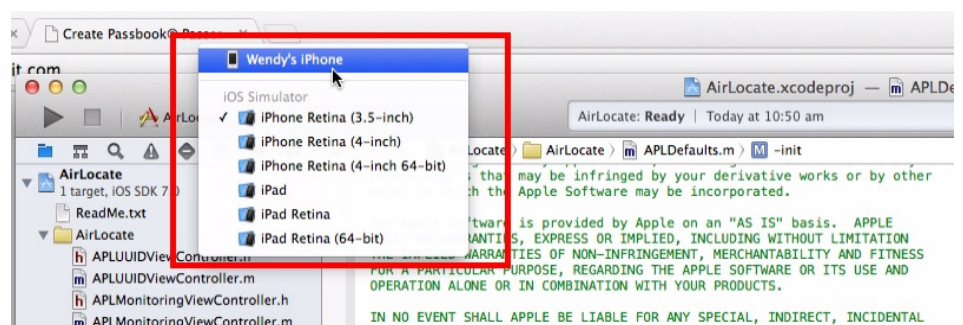
Step 6: Unzip the file and open the Airlocate.xcodeproj file. This will launch Xcode and open up the sample code you just downloaded.



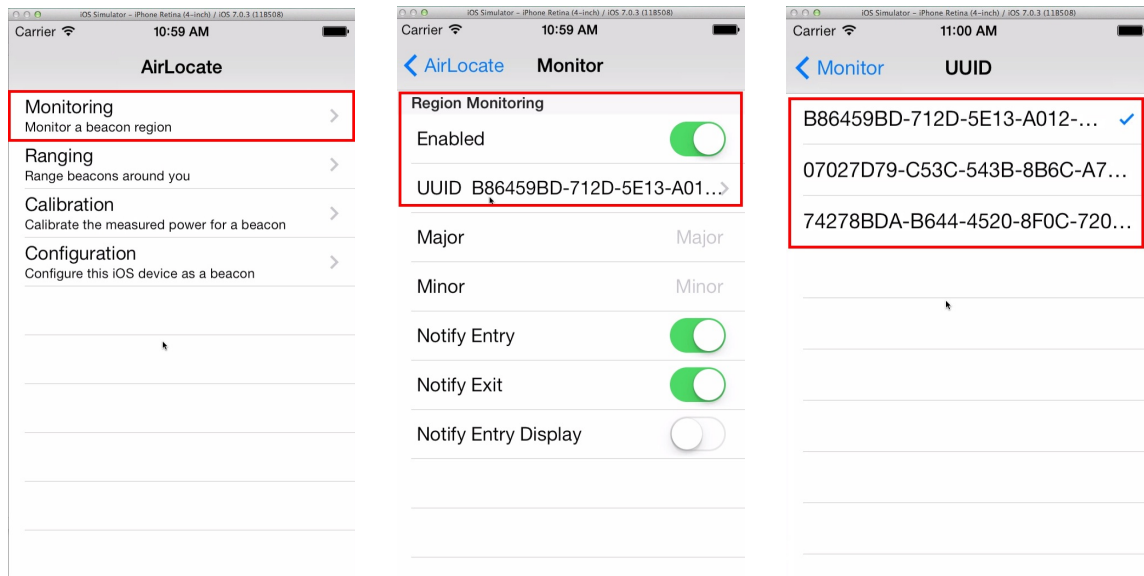
Step 7: Navigate to the side bar on the left and click on the AirLocate drop down menu. Click on the arrow next to the AirLocate folder and click on APLDefaults.m. This will open up the code that contains the UUIDs which your iPhone will broadcast. These UUIDs are the default ones from Apple but can be changed to a UUID of your choice. You can even add more UUIDs just as long as you copy and paste the array correctly.



Step 8: Plug your iPhone into your computer. Go up to the header to select the active scheme. Select your iPhone from the list of devices. At this point, ensure that your iPhone is plugged in and unlocked. Press the play button, which will run AirLocate and essentially build this application into your iPhone. When it's complete, you'll see "Build Succeeded" pop up on your computer screen.



Step 9: Open the AirLocate app from your iPhone. Click on the “Monitoring” tab and select which UUID you want to broadcast, and turn on the “enabled” switch. You’re allowed to broadcast one UUID at a time. This app must run in the foreground in order for your phone to continuously transmit that UUID. Anytime you want to change or add more UUIDs to broadcast, simply go back to Xcode, input a new UUID, and run AirLocate again. (Repeat Steps 7-9)

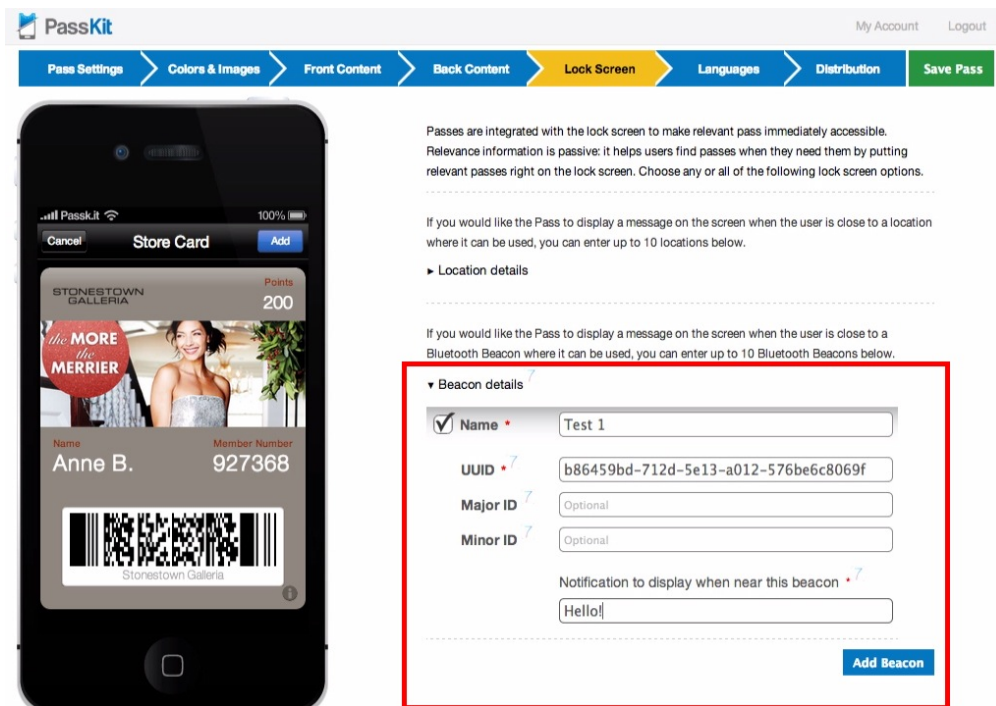


And that’s how you configure your iPhone to be an iBeacon transmitter. If you have any questions let us know on our forum <http://forum.passkit.com/>.

Go to the next page for information on how to test iBeacons with Passbook passes. You don’t need an app!

Test iBeacons with Passbook Passes

You can use PassKit's Pass Designer to generate UUIDs and test out iBeacons with Passbook Passes. Go to <http://create.passkit.com/> and click on the "Lock Screen" tab. Under Beacon details, simply type in a beacon name next to the name field and a UUID will automatically be generated for you. If you already have a UUID, you can also copy and paste that UUID in the name field. Type in a message to display when a user's device is near a beacon (i.e. Welcome to our store, 10% discounts all day, etc). You are able to install up to 10 beacon locations per pass.



The screenshot shows the PassKit Pass Designer interface. On the left is a preview of an iPhone displaying a 'Store Card' pass for 'STONESTOWN GALLERIA'. The pass includes a photo of a woman, the name 'Anne B.', member number '927368', and a QR code. The top navigation bar has tabs: 'Pass Settings', 'Colors & Images', 'Front Content', 'Back Content', 'Lock Screen' (highlighted), 'Languages', 'Distribution', and 'Save Pass'. On the right, the 'Lock Screen' configuration page is shown. It includes instructions about integrating passes with the lock screen and a section for adding beacon locations. The 'Beacon details' section is highlighted with a red box and contains the following fields:

- Name**: Test 1
- UUID**: b86459bd-712d-5e13-a012-576be6c8069f
- Major ID**: Optional
- Minor ID**: Optional
- Notification to display when near this beacon**: Hello!

An 'Add Beacon' button is located at the bottom right of the beacon details section.

Once the pass is saved, add it to your device and save it to Passbook. Make sure that Bluetooth is enabled on your device so that you'll be able to receive the lock screen messages. Whenever your iPhone is within a range of a beacon, you'll receive the lock screen messages you previously inputted in the Pass Designer.

Please note that if you have that pass installed on your iPhone and have also configured your iPhone as an iBeacon, you won't be able to test out the lock screen messages. Please install that pass on a different device (that is not a Beacon transmitter).

If you have any questions or comments please don't hesitate to share it with us on our forum <http://forum.passkit.com/>. We hope this helps!