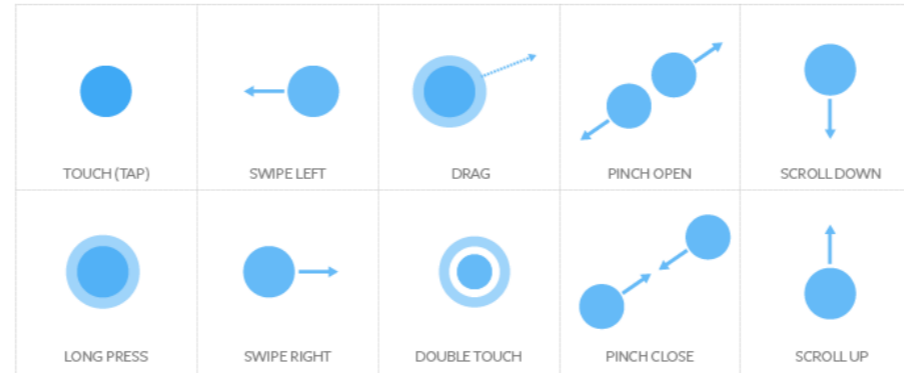


iOS 8

Features Overview



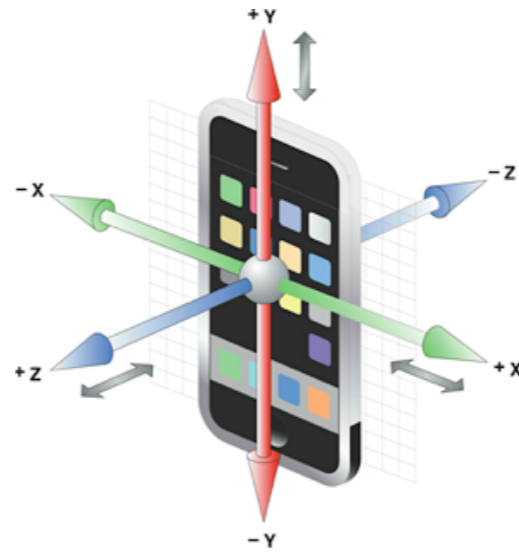
Gestures



Sensors

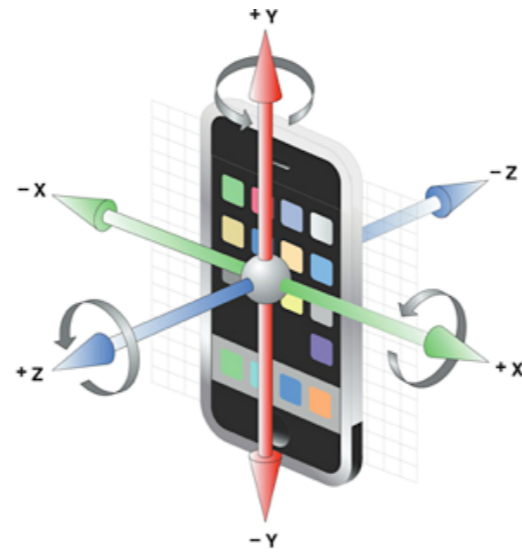


Accelerometer



Accelerometer

Gyroscope

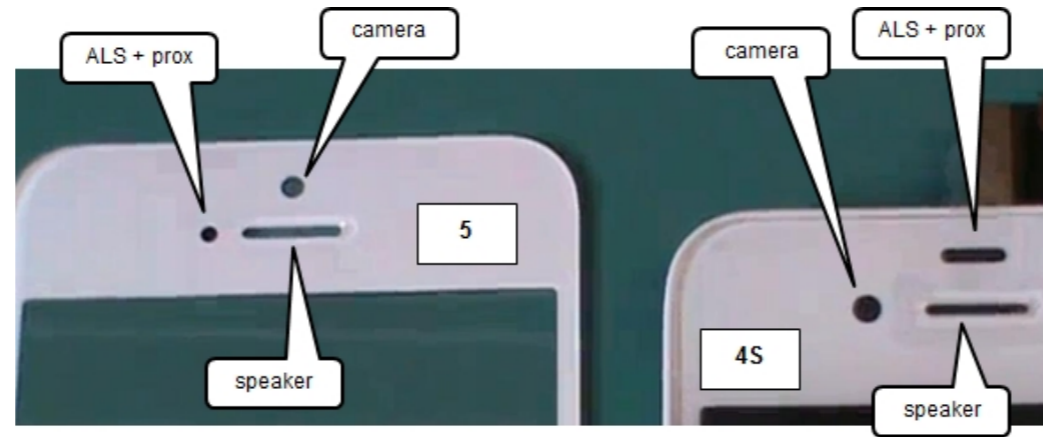


Gyroscope

Compass



Ambient Light Sensor



Magnetic Sensor



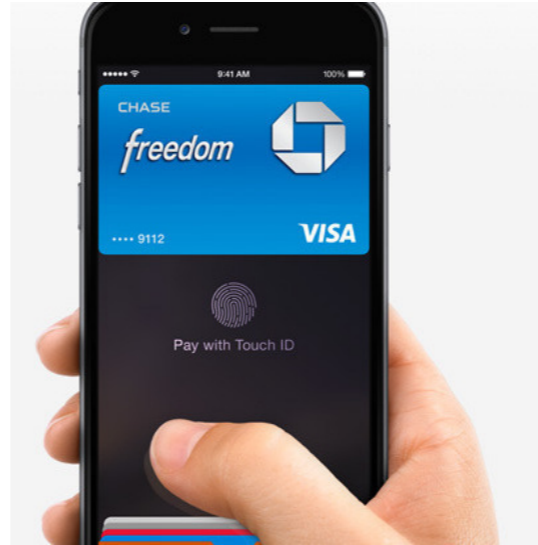
GPS Sensor






Touch ID Sensor



NFC Sensor



Accessibility

	VoiceOver: gesture-based screen-reader
	large text, white on black, zoom
	cc, MMS texting, visible/vibrating alerts, FaceTime
	AssistiveTouch: one finger/stylus multi-touch entry
	Siri
	Guided Access: autism, ADD, sensory disorder

Accessibility Programming Guide for iOS:

<https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/iPhoneAccessibility/Introduction/Introduction.html>

Accessibility features:

<http://www.apple.com/accessibility>

iPhone 6

A8

64bit, 25% faster cpu, 50% faster gpu

Retina

6: 4.7" - 1334x750px, 6P: 5.5" - 1920x1080px

RAM

16GB, 64GB, 128GB

iPhone 6

Barometer

air pressure determined elevation

Camera

8Mp iSight, 1080p HD, 720p SloMo

NFC

near-field-communication (wireless, w/in cm)

 pay

wireless payment technology (nfc, touchID)

iOS Feature List

iOS 4

Multitasking

FaceTime

iAd

Apple Push Notification

High Dynamic Range (HDR)

Game Center

iTunes TV Show Rentals

iOS features:

<https://developer.apple.com/library/ios/releasenotes/General/WhatsNewIniOS/Articles/iOSnn.html>

iOS Feature List

iOS 4

Improved email

iBooks

Create playlists

Spell Checking

Wireless keyboard support



iOS Feature List

iOS 5

iCloud

Game Center

Notification Center

Reminders

Newstand App

Camera

Twitter integration

iOS Feature List

iOS 5

Safari browser

PC Free: wireless updates

AirPrint

Accessibility

Mail

Siri



iOS Feature List

iOS 6

Game center

Game kit

Social frameworks

Maps

Pass kit

In-app purchase

iAd

iOS Feature List

iOS 6

Reminders

Collection views: customized data layout

Auto layout: set guidelines for UI elements

State preservation: preserve UI state

Facebook integration

Siri

FaceTime: over cellular

iOS Feature List

iOS 6

Passbook: tickets, boarding passes, coupons, loyalty cards

Maps

Photo sharing: from photos app via iCloud

Phone: Do not disturb

iOS Feature List

iOS 7

Sprite kit: physics engine

Game controller

Game center

Maps

Air Drop: sharing with iOS devices

Inter-app Audio: apps share audio

Multipeer connectivity: bluetooth, wi-fi, ptp wi-fi

iOS Feature List

iOS 7

Media accessibility: cc management

Enhanced Store kit: in-app purchase verification

Enhanced Message UI: send files with messages

CarPlay: call, directions, text, music

iOS Feature List

iOS 8

App extensions: intra-app functionality sharing

Document picker: multi-app doc access

Cloud kit: non-iCloud user data sharing

Handoff: start in one, end in another device

Health kit

Home kit

Photos framework

iOS Feature List

iOS 8

PhotosUI framework: create Photos app extensions

Touch ID Authentication

SceneKit: 3D games and UIs

SpriteKit: pixel-perfect collision detection

Unified storyboards: use one with universal apps

Home kit

Photos framework



Swift key features

Type inference

Strongly typed, but type inferred

switch

test any type value; single, range, set cases

Closures

assigned, returned, passed - manipulated as data

Tuples

collections of same/different type values

Optionals

value/reference variables that may not have a value

Swift key features

Value types

Array, Dictionary, String: struct implemented

Boundary checks

arrays are boundary checked

struct, enum

value types; class-like

multiple return values

functions can return tuples

Generics

used throughout (array, dictionaries etc)

Swift key features

Operators

overload existing; create new ones

Overflow

checked by default; use `&<op>` to ignore

String interpolation

interpolate variables/constants/expressions w/in strings

Nested types

nest one type inside another

Nested functions

nest one function inside another

Error Prevention

{ } : required around control bodies

No **pointers**

= does not return a value (*if i = 2 errors out*)

; optional

() around conditions optional

variables/constants must be initialized

overflow checked by default

Error Prevention

no implicit conversion b/w numeric types

array bounds are checked

memory leaks almost eliminated (auto memory management)

weak references avoid circular references

 [Swift Standard Library Reference](#)

Swift-ObjectiveC

both use **Cocoa, Cocoa Touch** frameworks

can combine both in same app

Array, Dictionary, String **bridged** to NSArray, NSDictionary,
NSString

 [Using Swift with Cocoa and Objective-C](#)

Swift resources

[Swift blog](#)

[WWDC 2014 sample code](#)

[The Swift Programming Language](#)

[WWDC 2014 videos](#)

Key OS Frameworks

Foundation


NSObject subclasses basic functionality

AppKit

UI elements for OS X apps

UIKit

UI elements for iOS apps

 [iOS Developer Library](#)



Xcode IDE

Playground

testing ground for code w/out project overhead

REPL

Read-Eval-Print-Loop: debugging tool; interact w/ app

IB

Interface Builder: one adaptive storyboard

Simulator

handles adaptive layouts

Live rendering

IB renders the UI automatically

Xcode IDE

View debugger

Fix UI problems

Game design

2D/3D game support; includes particle editor

LLVM

Low Level Virtual Machine compiler

Fix-it

as you type suggestions and error flagging

LLDB

Multicore debugging engine

Xcode IDE

Assistant editor

displays most appropriate counterpart file

Location Simulation

choose location to test Core Location features

Version editor

show versions when VC is used (Git)

Instruments

tools for performance/memory/graphics testing

XCTest

unit-testing tool

Useful links



[Swift Standard Library](#)



[Using Swift with Cocoa and Objective C](#)



[Swift blog](#)



[WWDC 2014 code demos](#)



[The Swift Programming Language](#)



[Design Patterns](#)