Gestures
In this tutorial, I will discuss the commands used to interact with VoiceOver, the screen reader apple has built into the iPod, iPad, and iPhone. Unlike traditional screen readers that are controlled using hotkey combinations, VoiceOver is controlled through a touch screen. Although the idea of working with a touch screen may seem daunting at first, you will soon discover that:

a. There are not that many things you need to know in order to explore the screen and interact with elements. And,

b. The methods for discovering items and interacting with them will quickly become intuitive.

Gesture Types
VoiceOver gestures can generally be divided into two types: tap gestures and flick gestures. With flick gestures, you will flick one or more fingers over your display; much like the motion you might use to brush crumbs or lint off a shirt. Sometimes, when performing a flick with multiple fingers, I will use the word “swipe.” In this case, the terms “flick” and “swipe” are synonymous. Tap gestures are performed by tapping your iPhone one or more times with one or more fingers.

Interacting with your display
Let’s begin the process of “unlocking” the iPhone. This is done by pressing the physical button on the right-hand side of the top edge of the phone. I will now demonstrate the three methods VoiceOver has provided for exploring and interacting with the items on your display.

Slide Gesture
The first technique is to place my finger on the screen, and move my finger around. The clicking sounds produced by VoiceOver indicate there are not any elements or controls in the location under my finger.

[F] demo

Flick Gesture
A second way I can interact with items on my display is to use VoiceOver's single-finger flick left and right gestures. As I flick right, VoiceOver will select items from left to right and top to bottom. As I flick left, VoiceOver selects items from right to left and from bottom to top.

[F] demo
When I press the button on the top edge of the iPhone to begin the unlocking process, Voiceover announces the time because it is selected. I will now flick to the right. The date is selected and spoken. If I flick to the right again, the control to unlock the phone is selected. The order in which items are selected is reversed as I flick to the left.

Notice that the single-finger flick gestures are much quicker than simply moving your finger around the screen. This is because the flick gestures can only move focus to selectable items, ignoring blank space on the display.

**Direct Selection**
I will begin the unlocking process one more time by pressing the physical unlock button on the top of the phone.

To select the “unlock” button, I will use the third technique that voiceover has provided for interacting with items on the screen. I simply touched the area of the screen where the unlock button resides.

As you gain experience with your iPhone, you will discover that certain controls generally appear in the same location. Examples include the unlock control, which appears directly above the physical home button. The back button in applications, which appears near the top left of the screen. And, the keypad for dialing phone numbers, which appears near the center of the screen. Gaining sense memory about these items will help you touch controls directly. This can be faster than dragging a finger around the screen or using flick gestures, both of which require additional time and hand movement.

**Single-finger Gestures**
Once I have selected an item using any of the techniques described, I can activate it by using the double-tap gesture. Double-tapping is performed by tapping twice quickly with a single-finger on the display. This can be done anywhere on the display. VoiceOver ensures the item you selected is the one activated, no matter where on the display you double-tap.

I will now activate the unlock button with a single-finger double-tap.

Voiceover announces “messages”
Whenever you unlock your iPhone, you will be on the same screen, in the same application, or in the same folder that was active when the iPhone was locked. Focus
is generally on the first item in the upper left hand corner of the screen. Before locking my phone, I was on a page of my Home screen. Messages is the first application listed. If I double-tap on messages, the application is opened.

Since I currently have no new messages, I am being asked if I wish to create a new message.

The single-finger Left and right flick and the double-tap are the most common gestures you will use to navigate and interact with your phone. You will not only use the single-finger double-tap to unlock your phone and launch applications, but to open e-mail and text messages; open and view calendar items; initiate editing and any other number of things that will be discovered as you work with your iPhone.

Double-finger Gestures
I will now discuss double-finger gestures. A two-finger swipe up or down controls how VoiceOver reads the screen. Swiping down with two fingers causes VoiceOver to read from the current cursor position to the end of the content.

An upward swipe with two fingers causes VoiceOver to read from the top of the content to the end, regardless of the cursor location.

A 2-finger single-tap silences speech. A subsequent 2-finger single-tap will resume speech at the location where it was stopped.

This gesture is a toggle; so, you can start and stop speech as often as you want.

The 2-finger double-tap gesture is used frequently. Its uses include answering and ending phone calls, starting and stopping music and video playback, stopping recording of an outgoing voicemail greeting, and more.

A two-finger triple-tap gesture activates an “item chooser” feature. This utility presents the items on the screen in alphabetical order. This can be extremely handy when you’re looking for an item located near the end of a long list, but the item name begins with a character that falls near the beginning of the alphabet.

Here is a concrete example.

I launched the iPhone “settings” application.

Within the settings application, I have selected the “general” category and activated it.
The General settings category contains 19 selectable items.

I want to select “accessibility,” which falls near the end of the list.

In order to select “accessibility” using one of the techniques I demonstrated earlier, I would have to either touch the item directly or swipe approximately 16 times until I reached it. I will now create an alphabetical list using the item chooser.

[demo]

Since accessibility begins with the letter ‘a”, it is now near the top of the list and can be selected with just a couple of single-finger flicks to the right. There’s the accessibility option.

[demo]

When I double-tap an item in the item chooser, such as accessibility, the item is not activated but simply selected. Once the item is selected, I can double-tap to activate it. [demo] I am now ready to change settings within the accessibility category.

Three-finger Gestures
I will now discuss three-finger gestures. A 3-finger single-tap near the middle of the screen will report the location of the selected item. Exactly what information you are given will depend on the type of information being displayed. For example, I am currently on my Home screen.

“Notes” is the selected application.

I will perform the 3-finger single-tap gesture.

[demo]

I now know that Notes is on the second of three pages, near the top of the screen. I will now single-finger right-flick a few times. Then, then I’ll repeat the three-finger single-tap gesture. My cursor is now at the center of the screen.

[demo]

The 3-finger single-tap gesture can also be used to get table-related information in iPhone applications. The settings application and the notification center are 2 such applications. The table-related information you receive may not be the most meaningful. In short, the triple-finger single-tap may be a somewhat useful command but I have personally found it of limited use.

The three-finger double-tap gesture is a toggle for turning speech on and off.

I have turned speech off with the three-finger double-tap command

[demo]

Issuing it again reactivates speech.
The 3-finger triple-tap gesture turns on and off the “screen curtain.” Screen curtain blanks the screen, so others cannot read the contents of your display.

Three-finger triple-tap once and the feature is activated.

Perform the same gesture again, and the screen curtain is deactivated.

As you may have already guessed, there are three-finger swipe gestures. The most common of these are three-finger swipe left and three-finger swipe right. These are used on the Home screen for switching from page to page, or in other applications with multipage displays.

I am now going to press the Home button to display my Home screen and the applications installed on my iPhone. Messages is the currently selected application. I will 3-finger swipe to the left.

VoiceOver tells me I am on page 2 and that Notes is the currently selected application. If I 3-finger left swipe again, VoiceOver tells me I am on page 3 and that Test Flight is the currently selected application.

It may help to think of the 3-finger left and right swiping gestures like turning pages in a book. Advancing pages — that is, moving from page 1 to page 2 and so on — is accomplished by taking the page on the right and turning it to the left. So, imagine placing the tips of three fingers on a right-hand side page and dragging it to the left.

The 3-finger swipe to the right moves through the pages in reverse. If I am on page 3, a 3-finger swipe to the right moves me to page 2, and another 3-finger swipe to the right moves me to page 1.

As an aside, there is another, though slower, technique for moving among pages on the iPhone Home screen. You can single-finger flick through the items on the page until you reach the page selector control. This is a slider control. When the slider control is selected, a single-finger flick up will move you forward through the pages, and a single-finger flick down will move you back through the pages.

3-finger flicking left and right is a much faster way to move among pages. Use of the page selector control not only requires you to perform multiple single-finger flicks to
locate the control but once you select another page, you may have to perform several more single-finger flicks to reach the item of interest.

The Three-finger flick up and three-finger flick down gestures are used to scroll a list up and down by some number of elements. To demonstrate this, I will open an e-mail inbox.

I will now single-finger right flick until I reach the list of e-mail messages.

[demo]
This is the first message. I know this because if I three-finger single-tap, I am told that I have X messages, and that the first five are visible, and that I am located at the top of my screen.

[demo]
If I three-finger flick up, messages 5 to 9 are visible

[demo]
A second 3-finger flick up displays messages 9 to 14.

[demo]
If I three-finger flick down, scrolling is reversed.

[demo]

**Notification Center**

There is a specialized use of the three-finger flick down gesture I will mention here. At the top of your screen, just below the forward-facing camera, is a small horizontal bar called the status bar. This is where the Wi-Fi strength, cell signal strength — if you are using an iPhone, the current time, and a variety of other information are displayed.

[demo]
As I just demonstrated, a 3-finger swipe down pulls down the “notification center.”

The notification center is a highly configurable area that allows you to display information of importance to you: your calendar, reminders, headlines — if you have certain news application installed, the current temperature for the city selected, and more can all be set up to display in this area.

**Four-finger Gesture**
The final voiceover gesture of which you should be aware is the 4-finger single-tap gesture. If you 4-finger single-tap at the top of your screen, then the upper left most item will be selected.
I am currently in the general category of the settings application. If I 4-finger single-tap at the top of my screen, I am told the name of the upper left-most item.

[demo]

I can verify this by single-finger left flicking. Since I hear the tone that indicates that there are no more items, I know the top left-most item is selected.

[demo]

If I 4-finger single-tap at the bottom of my display, voiceover selects and speaks the lower right-most item on the display.

I can verify this is the last item with a 1 finger flick to the right.

[demo]

**Practicing Gestures**

Now that you are familiar with the most commonly use VoiceOver gestures, you may wish to practice what you have learned. You can practice gestures without effecting your phone by using the VoiceOver practice mode. Here is how to find and launch the VoiceOver practice mode.

- Press the physical Home button on your phone to display your Home screen.  
  [demo]
- Flick through the applications until Settings is selected.  
  [demo]

The applications and the order in which they appear on my iPhone will be different from what is on your phone. This is to be expected.

- Once selected, double-tap to launch the Settings application.  
  [demo]
- Flick through the items until General is selected.  
  [demo]
- Double-tap to open the General settings.  
  [demo]
- Once you are in general settings, use either the item chooser or single-finger flicks and select Accessibility. Then, perform a single-finger double-tap to activate it.  
  [demo]
I will use the item chooser.
• Once you are in the accessibility area, locate the VoiceOver button and activate it by double-tapping.
   [demo]
   This is where you will find the VoiceOver practice feature.

• Locate and activate the VoiceOver practice button.
   [demo]

Now you can issue any VoiceOver command that you wish and it will be described. As an example, I will perform a left flick.
   [demo]

When I am finished practicing gestures, I will touch the upper right corner of the screen and locate the "done" button. Once selected, I will end the practice session by double-tapping.
   [demo]

This concludes this tutorial of the most common voiceover gestures.