**Android Accessibility Basics**

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Once you've enabled accessibility, you can start using your phone. This section describes some of the most common ways to interact with your device and explains some vocabulary.

**Explore by touch**

On devices running Android 4.0 and higher, you can touch your device's screen to hear the content under your finger spoken aloud. To activate an item, for example to click a button, tap the screen once after exploring the item. Or, to activate an item without exploring it first, simply double-tap the item.

**Scrolling**

When you explore content that extends beyond the screen and can be scrolled, your device will beep with a rising tone. To scroll content, place two fingers on the screen and move your fingers up or down. You will head ascending or descending tones as you scroll the list to let you know your relative position within the list. If you pause after scrolling a list, you will head a spoken description of your absolute position within the list.

**Directional Pad Navigation**

On devices with a hardware d-pad or arrow keys, you can typically navigate without needing to use the touch screen. This navigation is available to all users and does not require Accessibility to be enabled. Enabling Accessibility will provide you with speech feedback to assist in navigation if you cannot see the screen.

The type of directional controller varies by phone, but many phones have one of the following: a clickable trackball, arrow keys, or a directional pad. On phones without any hardware directional controls, you can download the Eyes-Free Keyboard from Android Market to obtain an on-screen directional pad. All of these controllers allow you to move in 4 directions, and click to select items on the screen. Depending on what accessibility applications you've enabled, you'll get speech, sound, and haptic (vibrational) feedback to tell you what you've selected and what's happening on your phone.

There are three other keys that you will use frequently. Make sure you know where these keys are on your phone:

* The **Home** button will take you to the home screen, where you can launch applications, check notifications, and much more. While Android comes with a home screen that's reasonably accessible, you can download alternative apps to use as your home screen including one designed specifically for eyes-free use. See [the section on customizing](http://eyes-free.googlecode.com/svn/trunk/documentation/android_access/customizing.html) for more details. In addition, if you press and hold (long press) the Home key, it will bring up a window with shortcuts to recently opened apps.
* The **Back** button will take you back to the previous screen, whether in the same app or a different app. As an example, if you're reading an email, pressing Back might take you to your Inbox, pressing Back again might take you to your list of mailboxes, and pressing Back yet again might take you to your home screen. You can use Back to close most dialogs or exit most screens that are causing you problems.
* The **Menu** button opens a menu specific to the current screen. Quite a bit of Android functionality which relies on the touch screen is also accessible through the menu button, so be sure to check for it. Menus are usually two-dimensional, so use the arrows to move up, down, left and right to find all of the options in the menu, and click one if you want. To close a menu, press Back.

**Long Press**

An important navigation mechanism in Android is called a **long press**. You perform a long press by pressing and holding down a physical key or touch (capacitive) button. If the long press is successful, the phone will provide some physical feedback such as vibration, and the long press action will take place.

You can use a long press to open menus that are specific to the active item - think of it like opening a context menu on a PC. For example, performing a long press on a song in the Music player application in Android 2.2 will open a menu that allows you to add or remove it from a playlist. To perform a long press that opens a context menu, press and hold the select key or the trackball.

As described earlier, you can long press the Home key to bring up a window with shortcuts to recent apps. Long pressing the Search key will activate Voice Search.

**The home screen**

**Settings**

The Android settings are available as a menu option on the home screen (accessed by pressing the menu button while on the home screen). There are many configuration options available here. The following are accessibility related options:

* **Accessibility** Used to enable and disable basic accessibility settings. See [the enabling accessibility section](http://eyes-free.googlecode.com/svn/trunk/documentation/android_access/enabling.html) for details.
* **Language & input** (Android 4.0 and higher) or **Voice Input & Output** controls global text-to-speech settings, including speech rate and language.
* **Sound (or Sound & display)** Configure sounds and vibrations (haptic feedback).

**Notifications**

Notifications are the primary way Android communicates messages to you without interrupting what you are currently doing. For example, a notification might tell you that you have new mail, a new text message, or a low battery warning. Any app can post a notification.

When you have TalkBack or another accessibility service running, it will speak the notification when it first appears. Additionally, at any point in time you can open the notifications panel from the home screen menu option to review all of your notifications. Most notifications are clickable - when clicked they will take you directly to the message or application in question or tell you more information about the warning.

**Application launcher**

An important function of the home screen is provide access to installed applications. From the home screen, select "All Applications". This will open a screen with a list of all installed applications.

Note that this view is two-dimensional, with four apps per row. In order to find all of your apps, you'll need to explore all four apps in each horizontal row. If you find this annoying, you can install an alternate home screen or app launcher, such as the Eyes-Free shell. See [the section on customizing](http://eyes-free.googlecode.com/svn/trunk/documentation/android_access/customizing.html) for more details.

**The Lock Screen**

When the phone goes to sleep, the screen is automatically locked. This means that the screen is off and the phone doesn't accept user input. Depending on your display settings, your screen might go to sleep after a specified timeout, and soon afterward the phone will lock. You can also force your screen to turn off and the phone to lock by pressing the power button. By default, once your screen is locked, accessibility services such as TalkBack will not give you feedback. This preference may be changed in your screen reader's settings page.

Unlocking a phone requires two steps: you need to turn on the screen, and then unlock the phone. In order to turn on the screen, you need to push the power button (on some phone models such as the Droid, the enter key will also turn on the screen).

Once the screen is on, unlocking the phone usually requires a touch screen gesture, but this may vary depending on manufacturer customizations. To perform the gesture on a standard Android phone:

1. Hold the screen in portrait mode.
2. Press your finger on the lower left side of the screen. If you have KickBack enabled, you should get a quick vibration when you are in the correct place.
3. Swipe your finger all the way across the screen to the right. With KickBack, you will get another haptic vibration when the phone successfully unlocks.

To practice this gesture, press the power button to turn the screen off and lock the phone - TalkBack will say "Screen Off". Press the power button a second time to turn the screen back on. It will now be waiting for you to unlock it.

You can also mute the ringer volume from the lock screen. To mute the ringer volume, perform the unlocking gesture but swipe from right to left instead of from left to right. Please note that muting the ringer volume will not mute speech feedback for accessibility.

If you don't like having to swipe to unlock your phone, you can disable this behavior or choose a different unlocking strategy. See [the section on customizing](http://eyes-free.googlecode.com/svn/trunk/documentation/android_access/customizing.html) for more details.

**Phone calls**

To answer a phone call on most phones, you must swipe from left to right, just like the unlocking gesture described above. To decline a call, press the power button or perform the unlocking gesture in reverse from right to left.

A few phones, like the HTC G1 and LG Ally, have physical Call Start and Call End buttons which can be used instead of the gestures.

To end a call on a phone without a physical button, you must push a button on the touch-screen. The button is accessible, so you can use your directional controls to find and click the button. However, it can be challenging to do this quickly.

* If you have Android 2.2 or later, there is a checkbox in the Accessibility settings that allows the power button to hang up calls.
* If you have Android 2.1 or earlier and do not want to use the directional pad to locate the end call button, you can try to learn where to press the touch-screen: the button is in the center, towards the bottom. Note that when you hold the phone near your ear, the screen turns off. You may need to wait a second after moving the phone away to be able to press the button.

Everything else about phone calls is already accessible if your phone has a keyboard: dialing, editing contacts, etc.

**Conclusion**

Now you know everything you need to start using your phone! The rest of this guide will go into much more detail about some common things you might want to do with your phone, and how to customize your experience to work just right for you.

At this point, many of your questions may not be specific to accessibility. If you want to learn how to make phone calls, synchronize your contacts, play music, or more, you don't need a special guide for accessibility. You can just read the manual that came with your phone, or search the Internet for general advice on using Android. In many cases, your experience may not be very different than the experience for any other user.

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