

Android



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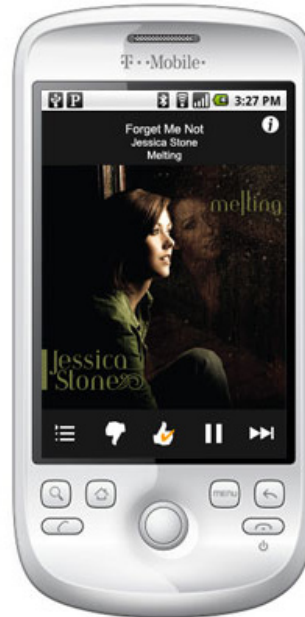
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PHOTOGRAPHS: ROBERT CARDIN

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Welcome to Android

GINNY MIES

BY NOW, YOU'VE probably heard an awful about how great [Android phones](#) are, how they will take over the mobile world, and how they do everything the iPhone can't. But if you haven't yet fully explored an Android phone, you may be wondering what the hype is all about.

First, a little history: Google's move into the mobile phone market started way back in 2005, when the Internet giant acquired a small startup company called Android, Inc. Rumors immediately began to surface that Google was developing its own challenge to the iPhone. But it wasn't just one phone—and Google wasn't the only company working on the project. In November 2007, the Open Handset Alliance—a consortium of 47 hardware, software, and telecom companies—[unveiled Android](#), a mobile platform based on the open-source Linux operating system.

Because Android is open-source, the platform has many advantages for consumers and developers. Smartphone and

other mobile device manufacturers have more freedom to tweak the software to meet their needs, opening up a wider range of options than most other cell phones can offer.

A few manufacturers have created custom user interfaces that run on top of the OS, morphing the aesthetics and usability of Android. Android also allows

manufacturers to create their own widgets. For example, [HTC's new Sense](#) user interface has a Friends Stream widget, which aggregates and displays activity from your various social networks. Similarly, [Motorola's MotoBlur](#) interface features a



widget called Happenings, which displays your social networking activity directly on your homescreen. Other manufacturer-made interfaces for Android include [Sony Ericsson's UX](#) and [Samsung's TouchWiz 3.0](#) and S Life (coming to Samsung phones this summer).

Another advantage of open-source is that Android isn't tied to a single device—whether it be a phone, a netbook, or a tablet. The [HTC T-Mobile G1](#) was the **»**

Hands-on reviews of the hottest Android phones, tablets, and laptops.



Android Devices

Top 10 Android Phones

EDITED BY GINNY MIES

ANDROID PHONES COME in a variety of forms and flavors. Here are the best smartphones running Google's innovative mobile platform.

1. Google Nexus One



Pros: Sleek, ultraslim design; snappy performance; dazzling OLED display

Cons: Software keyboard is far from perfect

Bottom line: The Google Nexus One impresses with a stunning AMOLED display, speedy performance, and cool tweaks to the Android OS, but some network issues prevent it from being a superphone.

The coveted "Google phone" is finally here, but [HTC's Google Nexus One](#) (\$180 with a two-year contract with T-Mobile, or \$530 unlocked; prices as of January 12, 2010) isn't quite the superphone that Google intimated it would be. It lacks some valuable features—like multitouch and Outlook calendar

syncing—that we've seen on competing models, and the Android keyboard can be difficult to use. That said, the Nexus One's speedy Qualcomm Snapdragon 1GHz processor definitely sets it apart from the Android pack in performance.

One asterisk attached to the phone's performance involves its interaction with the T-Mobile network. The phone has [run into some network issues](#), a distressing shortcoming on a phone with so many connected features. Nevertheless, it is a very good handset and marks real progress for the Android platform.

Design: Solid, Not Groundbreaking

The Nexus One's hardware isn't especially innovative, and its design is unmistakably the work of HTC. In fact, it most strongly resembles a stretched-out HTC Hero. Still, the phone is attractive and well constructed. Its rounded corners, solid-glass display, and rubberized back make it a pleasure to hold. At >>



Laptops and Tablets

BY ROBERT STROHMEYER

Archos 5 Internet Tablet



Pros: Supports a vast array of media file formats; beautiful HD display

Cons: GPS is erratic and costs extra for pedestrian mode; DVR functionality requires an expensive add-on

Bottom line: This Android-powered tablet crams a ton of Internet and multimedia features into its slim frame, but it still needs some refinement.

Though Archos has been cranking out innovative portable touchscreen media players for years, to consumers, its devices have scarcely managed to stand out from the crowd. One reason for that has been a lack of compelling software. But with the release of the [Archos 5 Internet Tablet](#) (a flash-drive, 8GB model is \$250; a hard-drive, 160GB model is \$430; prices are as of 11/2/09)—which sports Google's Android operating system for mobile devices—that limitation is disappearing.

The Archos 5 Internet Tablet is a revamp of its predecessor, the [Archos 5](#), which was powered by Archos's somewhat confusing proprietary software. Encased in a 5.6-by-3.1-by-0.4-inch chassis, this sleek little tablet weighs in at a scant 6.4 ounces for the 32GB flash model and a slightly heftier 10 ounces for the 160GB and

500GB hard-drive models.

The new moniker "Internet Tablet" is handily earned by the Web-centric Android operating system, which includes a powerful Flash Lite browser. Be aware, however, that this is a mobile browser, so it will default to a Web site's mobile version if one is available. In addition to its browsing and media playback features, the Internet Tablet comes loaded with free apps for Twitter, IM, LinkedIn, Wikipedia, Craigslist, and other online services.

The Android interface, which we've tested thoroughly in mobile phones like the [Motorola Cliq](#), shines on the Archos 5 Internet Tablet. In the previous version of the Archos 5, PC World's Ginny Mies noted issues with its software interface, particularly its poor scrolling in menus. These problems don't afflict the Internet Tablet. In fact, Android proves highly responsive here, and the large (4.8 inches), 800-by-480-pixel display is well suited to navigating a wide variety of applications, from Web browsing to media playback.

As a media player, the Archos 5 Internet Tablet is more than competent. HD video looks beautiful on the glossy screen, and the internal speaker makes for comfortable listening when viewing video content. For music, however, the >>



Android comes in a variety of versions, depending on which device you buy. Here's a guided tour of the whole OS, and a look at what you get in each version.

Get to Know Android

Android 101: A Guide to Using Your Android Phone

BY JR RAPHAEL

ANDROID CAN DO a lot for you—but you have to know where in the world to begin.

Compared to the iPhone's cut-and-dried interface, the Android operating system gives you ample room for customization and control. Here's a step-by-step guide to making the most of your Android phone's many features.

The Desktop

The first thing you'll notice about Android is that its desktop differs somewhat from those on other smartphone platforms.

You have a lot of freedom to customize the Android desktop—and you aren't limited to four simple rows of perfectly aligned square icons. As a result, you can customize the Android desktop to reflect your interests, and you can make it as full and dynamic as you like.

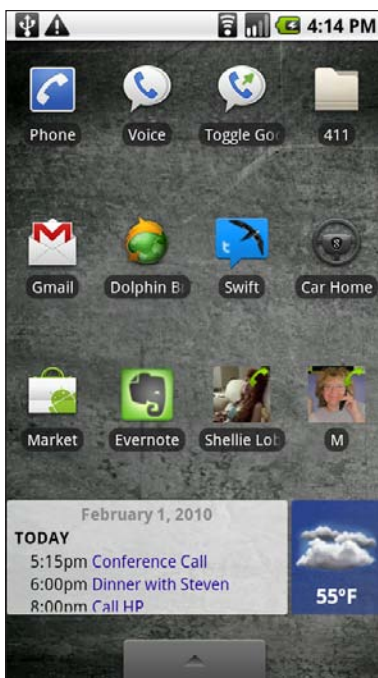
The Android desktop is composed of multiple home-screen panels. Depending on the version

of Android that your phone uses and on whether your device has a specialized "skin" such as [MotoBlur](#), you may have from three to seven home-screen panels.

When you power up your phone for the first time, you'll see the main home-screen panel. This panel is typically centered; you can access additional panels on either side of the main one by swiping your finger left or right. Starting with the 2.1 version of Android, you can also see thumbnail-size icons of all of your panels at the bottom of the screen; to jump directly to a panel without swiping, you simply tap on the associated icon.

What goes on the home screens is up to you. You can fill the space with any combination of shortcuts, widgets, and folders.

As you'd expect, shortcuts are small icons that let you load apps or other functions on your phone; they function much like the ones you see on a PC desktop. You can set a shortcut to do anything from a opening a pro- ➤



The Android desktop is highly customizable.

Customize
your phone,
manage
messages and
documents,
and work
more
productively
with your
Android
phone.



How to Get Around Android

Customize Your Android Phone

BY JR RAPHAEL

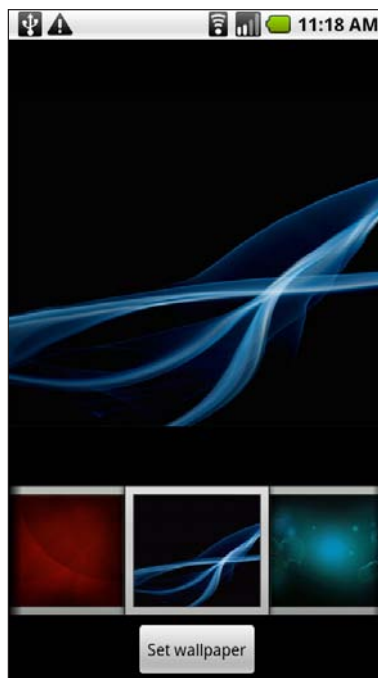
ONE OF ANDROID'S biggest strengths is its flexibility. Unlike Apple and its iPhone, Google lets users and third-party developers tweak just about every aspect of the Android interface, and the customization options are nearly endless. If you find something that you don't like about your phone, odds are good that you can change it. From the desktop wallpaper to the notification sounds to the blinking LED indicator light, Android is easy to personalize. Here's how to give Android your own personal flair.

Change Your Phone's Look and Feel

The first thing you might want to customize is your phone's background. This couldn't be easier to accomplish: Tap the phone's Menu key, and then pick Wallpaper. You can select a picture from among your own photos or from the phone's included collection of wallpaper backgrounds. Beginning with Android 2.1, you can also choose any of several

"live wallpapers" that move and sometimes respond to your touch.

Power tip: You can set a photo as your wallpaper directly from your phone's gallery. While viewing an image, just tap anywhere on the screen, and then select Set as to find the option for making that picture the wallpaper. Or, if you want to expand your options, try using an app such as Backgrounds, a free download from the Android Market. The program gives you thousands of wallpaper designs to choose from and to apply directly to your phone.



All Android phones offer custom wallpaper options.

Design Your Home Screens

The wallpaper is only the beginning—with Android, no two sets of home screens have to look alike. Thanks to the platform's wide range of widgets, there's almost no limit to the number of ways you can configure your phone.

Widgets come in all shapes and sizes. Several are preloaded on your phone, but many others are available either as stand-alone downloads >>

Create, Share, and Play Video in Android

BY ROBERT STROHMEYER

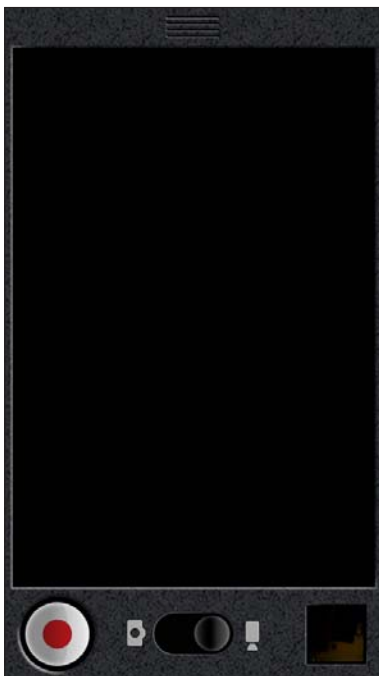
WHETHER YOU'RE A videophile or a casual videographer looking to capture life's precious moments, your Android phone can help you grab plenty of footage and share it with the world. And, with the help of a few choice apps, you can even carry and play movies right on your phone.

Capture Video

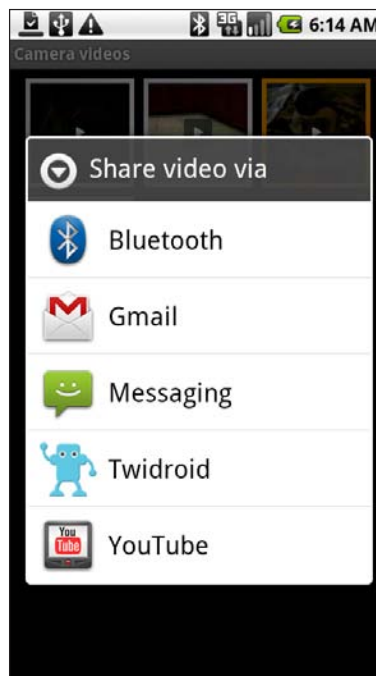
Android includes robust capture capabilities that are limited only by the power of your phone's built-in camera. Though

that doesn't mean a complete HD experience on most devices, it does mean your phone can serve as a suitable stand-in when your camcorder is out of reach.

To start shooting video on your phone, launch the Camera app and toggle it to Video mode by tapping the small camcorder/camera switch on the right side of the screen. (This step should seem obvious to most readers, but it's important to hold the phone horizontally as you shoot, since there's no such thing as portrait mode in video.)



Android's Camera app switches between video and pictures.



You can share your videos through a variety of apps.

While the camera's default settings generally do a good job of automatically compensating for various lighting conditions, you can also fine-tune your capture settings by tapping the Menu button on your phone and choosing Settings. Here you'll find options for adjusting the capture quality, video duration, white balance, and color effects.

Most of the time you'll be shooting in high quality, which can take up a fair amount of space on your **»**



Everything you need to know to find and enjoy your favorite tunes, shoot and edit pictures and video, and have more fun with Google Android.

Manage Multimedia in Android

Manage Music With Android

BY ROBERT STROHMEYER

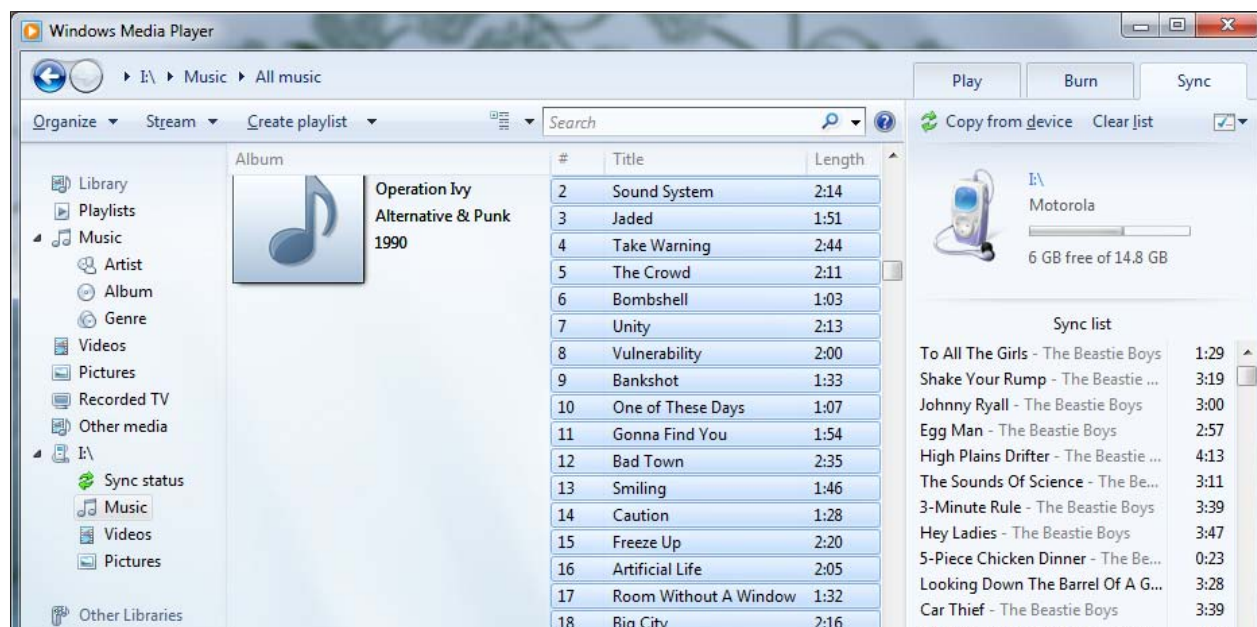
GOOGLE ANDROID IS a great platform for mobile communications, but it's also designed from the ground up to offer a rich multimedia experience. Your Android device is jam-packed with features that let you manage and play your digital music in a variety of ways.

Like Apple's iPhone, Android has its own built-in music player with a large touch-screen interface that's easy to control while you're on the go. However, because Android is an open platform, you'll find no shortage of third-party music apps that go well beyond the capabilities of the basic Android Music app. Let's explore all of Android's music

management features, and take a look at some of the best music add-ons available in the Android Market.

Load Your Tunes

While some phone manufacturers have come out with customized desktop applications for managing media on their Android devices, these apps are not essential for copying music and other files from your desktop computer to your Android phone. All you really need to do is connect the phone to your computer's USB port and touch the notification area at the top of your phone's screen. Tap USB connected in the notification area and then tap Mount to make your



Windows Media Player makes a very good desktop client for your Android music library.

For fun,
productivity,
security,
and more,
there's an
Android App
for almost
anything.



Android Apps

Install and Manage Apps in Android Market

BY JR RAPHAEL

YOUR ANDROID PHONE is only as useful as the apps you put on it. Whether you're looking to play games, manage media, or find new ways to organize your life, apps are the tools that can make it happen.

Compared with other smartphone platforms, downloading and managing applications is a bit different for Android. Here's everything you need to know to get the most out of mobile apps.

The Android Market

Android's official app store is called the Android Market. Though the open nature of the Android platform allows you to download and install apps from any location, the Android Market is the largest and most diverse collection of apps available for your device—plus, it offers a safe and secure paying experience through Google's Checkout system—so that's where we'll focus our

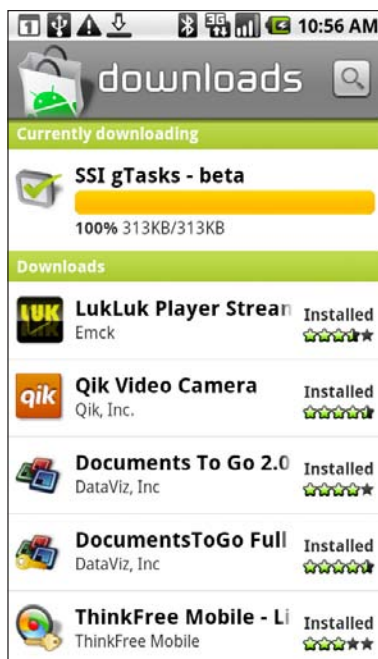
attention for this tutorial.

To access the Market on your phone, simply tap the Market shortcut on your home screen. Upon loading the Market, you'll see a page showcasing featured applications. At the top of the screen, you'll find a tab labeled Apps, one labeled Games, and possibly another option specific to your mobile carrier.

Tapping the Apps tab will bring up a menu of available categories that you

can browse. When you enter any category, you'll see a list of the most popular programs within that particular section, separated by whether they're free or paid. You can also tap the search icon—the small magnifying glass at the top-right of the screen—to look for any application by name or keyword.

To learn more about or download any particular app, tap your finger on it. This will load a description and some screenshots provided by the developer, along with ratings and >>



When you download an app from the Android Market, the Downloads screen will show you the progress of the installation.

App Guide

Entertainment

Cestos



Price: Free

Developer: ChickenBrick Studios

Age rating: 17 +

Compatibility: Requires Android OS 1.5 or later.

Cestos seems to be as simple as games get: It's a casual strategy game in which you fling marbles around in the hopes of knocking your opponent's marbles into holes in the board. Easy, right? Not quite. Each time you move your marbles, in each marble's former resting place a land mine appears. The mine takes a second or so to arm itself after you make your move. Once the mine is set, if any marble gets close enough, the blast will fling the marble with sufficient force to send it ricocheting wildly around the playing field.

Cestos doesn't pit you against an AI opponent. Two to four players, in real time, battle over the network. The real

challenge of Cestos comes from the unpredictability of the human contestants. When you join a game, you're paired with another player at random; that person may decide to fling their marbles directly at yours, or rebound them off the walls of the playing field, using a more subtle strategy.

The game has six different "maps," each of which features its own style of gameplay, but in all the maps, the last player standing with at least one marble on the board wins. The default map, Black Hole, provides two players with

three marbles each, and an arrangement that features a large pit in the center. Other maps, like Islands, Minefield, and Speedball, offer modified rules and mix up

the gameplay styles dramatically.

While Cestos itself is completely understated, fun, and endlessly challenging, the app has an age-appropriateness rating that's beyond what it deserves. The "lobby" chat room habituated by foul-mouthed teens gets fairly raunchy at times. If you can tolerate the smack >>

