

LEARNING MADE EASY



Android[®] Smartphone Photography

for
dummies[®]
A Wiley Brand



Get smarter with your
photography skills

Evaluate your camera
and choose the best settings

Apply the same tricks
pro photographers use

Mark Hemmings

Pro photographer who's conducted
61 international photo shoots

Android[®] Smartphone Photography

for
dummies[®]
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by Mark Hemmings

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Android® Smartphone Photography For Dummies®

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Contents at a Glance

Introduction	1
Part 1: Using Your Camera Straight out of the Box	5
CHAPTER 1: Introducing Android Smartphone Photography	7
CHAPTER 2: Taking an In-Depth Tour of Your Camera	19
CHAPTER 3: Altering Your Camera's Settings and Storing Your Photos	39
CHAPTER 4: Taking a Deep Dive into the Camera App	59
Part 2: Having Fun with the Fundamentals of Photographic Genres	83
CHAPTER 5: Capturing the Perfect Landscape Photograph	85
CHAPTER 6: Shooting Sports Photography	101
CHAPTER 7: Saving Memories through Family and Individual Portraiture	119
CHAPTER 8: Photographing During Your Travels and Vacations	141
CHAPTER 9: Creating Dynamic Still Life and Product Photography	163
CHAPTER 10: Taking It to the Streets: Photographing Strangers	181
Part 3: Editing, Organizing, and Sharing Your Photos	199
CHAPTER 11: Editing with the Google Photos App	201
CHAPTER 12: Organizing and Sharing Your Photos Like a Pro	241
Part 4: The Part of Tens	263
CHAPTER 13: Ten Android Apps to Further Your Skills	265
CHAPTER 14: Ten Tips for Creating Stunning Videos	277
CHAPTER 15: Ten Extra Google Photos Features	289
Index	299

Table of Contents

INTRODUCTION	1
About This Book	1
Foolish Assumptions	3
Icons Used in This Book	3
Beyond the Book	4
Where to Go from Here	4
 PART 1: USING YOUR CAMERA STRAIGHT OUT OF THE BOX	 5
 CHAPTER 1: Introducing Android Smartphone Photography	 7
Becoming Familiar with Your Android Camera	8
Single-lens models	8
Dual-lens models	9
Triple-lens models	9
Models with more than three lenses	11
Taking a Look Around the Camera App	12
Taking a Picture	13
Viewing Your Photo	15
Editing Your Photo	16
Sharing Your Photo	18
 CHAPTER 2: Taking an In-Depth Tour of Your Camera	 19
Holding Your Phone Properly for Steady Photos	20
Using Different Ways to Open Your Camera	24
Zooming In to Your Subject	26
Using the digital zoom	27
Trying optical zoom instead of digital zoom	29
Capturing Selfies with and without Background Blur	31
Understanding When to Use (and Not to Use) the Camera Flash	32
Photographing with the Camera Timer for Sharp Photos	36
Landscape photography using your timer	36
Family portraits	37
Selfies with a tripod or stand	38
 CHAPTER 3: Altering Your Camera's Settings and Storing Your Photos	 39
Opening and Activating Google Photos	40
Choosing Storage Options for Your Photos	42
Deciding on photo upload quality	43

	Managing on-device photo storage	45
	Transferring photos to a PC or Mac	50
	Being Mindful of Cellular Data Over-Usage.....	52
	Allowing Your Camera to Track Your Location	57
CHAPTER 4:	Taking a Deep Dive into the Camera App	59
	Preparing to Take Selfies	59
	Lighting and background	60
	Selfie sticks and stabilizers.....	62
	Taking Selfies	64
	Choosing the Portrait selfie mode	65
	Adjusting background blur amounts	65
	Adding facial skin smoothening	66
	Choosing your favorite selfie effect	68
	Adding Live Filters to your selfies	71
	Adjusting selfie zoom to add your friends into the picture.	72
	Considering Alternate Aspect Ratios	73
	Creating Panorama Photos	77
	Horizontal panorama photos	78
	Vertical panorama photos	81
	PART 2: HAVING FUN WITH THE FUNDAMENTALS OF PHOTOGRAPHIC GENRES	83
CHAPTER 5:	Capturing the Perfect Landscape Photograph	85
	Camera Considerations: Levels and Exposure	85
	Levelling your camera.....	86
	Controlling exposure.....	87
	Lighting Considerations	90
	Photograph during the magic hours	90
	Timing the magic hours	90
	Gear Considerations	92
	Steadying your Android camera with a tripod	92
	Choosing a lens (for multi-lens Android cameras)	95
	Photography Tips for Your Next Outing.....	97
	Applying the Rule of Thirds for better compositions.....	97
	Framing an “L” shaped composition.....	98
	Positioning a primary and secondary subject.....	99
CHAPTER 6:	Shooting Sports Photography	101
	Camera Considerations: Using Burst Mode to Capture Motion.....	102
	Gear Considerations	105
	A tough smartphone protective case	105
	A smartphone screen protector	106

Battery packs or battery cases	106
Touch-sensitive gloves in cold weather	107
Lighting Considerations	107
Photographing into the setting sun	107
Capturing team sports with the sun behind you	107
Using the setting sun for portraits	110
Incorporating cool and warm color tones	111
Choosing high contrast lighting	111
Photography Tips for Dynamic Sports Photos	112
Using your Portrait mode	112
Allowing the subject to enter the composition	114
Choosing curved backgrounds	115
Framing your athletes	116
Creating negative space	117

CHAPTER 7: Saving Memories through Family and Individual Portraiture	119
Camera Considerations: Portrait Mode and Lenses	119
Knowing when to use Portrait mode	120
Understanding lens compression	121
Gear Considerations: Editing Tools for Better Compositions	123
Lighting Considerations	125
Avoiding certain types of interior lighting	125
Dealing with interior backlighting	126
Creating silhouettes for artistic family portraits	127
Using shadows to create artistic portraits	127
Placing family members in the shade for even light	129
Photographing from a lower position	131
Photography Tips for Your Next Portrait Session	132
Taking multiple photos at your location	132
Avoiding objects sticking out of people's heads	133
Composing small for artistic portraits	134
Including family member's interests	135
Practicing close-up portraits	135
Including mirrors for hands-free selfies	137
Using food as bait for pet photos	138

CHAPTER 8: Photographing During Your Travels and Vacations	141
Camera Considerations: Multiple Lenses and Exposure	141
Photographing the same scene with multiple lenses	142
Quickly using exposure control for fleeting subjects	143

Gear Considerations	144
Protecting your Android smartphone	144
Packing a tripod	146
Lighting Considerations	147
Front light	147
Back light	148
Side light	148
45-degree diagonal light	150
Blue and golden hour light	152
Lens flares from photographing into the setting sun	152
Making use of cloudy days	154
Photography Tips for Your Next Trip	156
Leaving space for text	156
Placing s-curves in your compositions	157
Composing using geometric forms	159
Reviewing newly discovered businesses	159
Searching for faces	160

CHAPTER 9: Creating Dynamic Still Life and Product Photography	163
Camera Considerations: Creating Background Blur	163
Gear Considerations	166
Choosing the background for your product	166
Using tabletop tripods	168
Lighting Considerations	170
Using raking light for products	170
Positioning for sunset light rays	171
Exterior architecture photography	174
Interior architecture photography	176
Creating Beautiful Still Life Photos	176
Positioning your background for equidistance	177
Photographing through a window	177
Photographing food	178

CHAPTER 10: Taking It to the Streets: Photographing Strangers	181
Camera Considerations: Choosing Lenses and Locations	182
Choosing your lens	182
Selecting your location	183
Gear Considerations	185
Lighting Considerations	187
Tips for Your Next Street Photography Session	191
Using arrows for conceptual street photography	192
Considering the flow of your composition	192

Converting your composition to black and white	193
Choosing design-based backgrounds	193
Appreciating the mundane	195
Maintaining anonymity using scale and shadows	195
Being sensitive to people's privacy	196
PART 3: EDITING, ORGANIZING, AND SHARING YOUR PHOTOS	199
CHAPTER 11: Editing with the Google Photos App	201
Using the Google Photos App Editing Tools	202
Choosing a filter	202
Saving changes	202
Choosing between Save and Save as Copy	204
Applying Filters	205
Vivid	205
West	206
Palma	206
Metro	207
Eiffel	207
Blush	207
Modena	208
Reel	208
Vogue	209
Ollie	209
Bazaar	210
Alpaca	210
Vista	211
Cropping a Photo	212
Using the Auto Straightening tool	212
Adjusting the crop handles	214
Rotating your photo	216
Understanding crop aspect ratios	218
Rotating your photo 90 or 180 degrees	222
Skewing your photo	223
Editing Your Photography	228
Editing Your Portrait Photos	234
Portrait	235
B&W Portrait	235
Blur	236
Depth	237
Colour Focus	238
Portrait Light	239

CHAPTER 12:	Organizing and Sharing Your Photos Like a Pro...	241
	Understanding Post-Production Workflows	241
	Deleting Unwanted Photos	242
	Deleting a photo	243
	Restoring a deleted photo	244
	Favoriting Photos with the Star icon.....	246
	Mastering Album Organization	247
	Selecting photos to create a new album	248
	Removing a photo from an album	251
	Naming albums logically.....	252
	Exploring the Search Tools.....	253
	Finding photos of a single person using People.....	253
	Checking your location using Places.....	255
	Using Things to locate photos by type.....	256
	Accessing photos using Your Activity	257
	Using Categories and Creations to sort by media type	257
	Sharing Your Photo Albums.....	259
	PART 4: THE PART OF TENS.....	263
CHAPTER 13:	Ten Android Apps to Further Your Skills	265
	Adobe Photoshop Express.....	266
	Adobe Photoshop Camera.....	267
	Photo365	268
	Foodie	269
	Prisma Photo Editor	269
	Facetune2.....	270
	Canva.....	271
	VSCO	272
	TouchRetouch	273
	PhotoScan.....	274
CHAPTER 14:	Ten Tips for Creating Stunning Videos	277
	Accessing the Video Camera	277
	Properly Holding Your Camera for Videos.....	278
	Trimming the Length of Your Video Clip	279
	Reducing Video Shakiness	281
	Exporting a Still Frame	282
	Cropping Your Video.....	284
	Adjusting Your Video.....	286
	Applying Filters to Your Video	287
	Capturing Video Clips with Slow Motion	288
	Creating Time Lapse Video Clips.....	288

CHAPTER 15:	Ten Extra Google Photos Features	289
	Viewing the Memories Carousel	289
	Watching Creations	290
	Creating Auto Panoramas	291
	Adding a Partner Account	292
	Marking Up Your Photo	293
	Accessing Your Metadata	294
	Searching with Google Lens	295
	Buying Photo Books	296
	Creating Screenshots	297
	Clearing the Clutter	298
INDEX		299

Introduction

Android smartphone photography continues to amaze me. Last night as I was looking up at the brilliant night sky, I was able to photograph the full moon with such magnification that I could see details in the moon's impact craters! Of course the ability to photograph the moon close up is easily done with a larger DSLR or mirrorless camera, but for a smartphone to have advanced to such an extent that you can create decent astro-photographs is amazing.

The good news is that not only are the physical cameras on Android devices getting better each year, but the software that processes your photos within your smartphone also gets better with each software update. I encourage everyone to update their Android smartphones to take advantage of a better photography experience. No matter what kind of Android phone you have, you can create amazing images that you will be very proud of.

Maybe you're someone who has always found the technical side of things easy, but you struggle with capturing emotion, mood, metaphors, and heart in your photographs. Or maybe you're the opposite, where you feel and understand the soul of a particular place, but have a challenging time with the technical side of photography. Regardless of what your challenge is, this book is well-suited to help you both master the artistic and the technical side of Android smartphone photography.

About This Book

Android Smartphone Photography For Dummies is a book written to help you navigate your phone's incredible camera system and discover the heart and soul of smartphone photography. No matter what level of photography experience you have, the goal of this book is to get you excited about the possibility of seeing photo opportunities each day. As your Android smartphone is almost always with you, either in your backpack, purse, schoolbag, or back pocket, you almost always have access to a surprisingly good quality camera. This book offers you the creative and technical tools that will fuel your desire to photograph pretty much daily.

In this book, I show you how to

- » Control light in its many forms to create the best-looking photos.
- » Accentuate your images by applying the Rule of Thirds and other compositional tools.
- » Initiate Burst mode for sports and street photography to ensure that you get the shot.
- » Access and use the extra camera features, such as panoramas and selfies.
- » Navigate your way around all of the Google Photos app settings and options.
- » Take and edit your photos in the quickest and most accurate way possible.
- » Create the best landscape, sports, family, travel, products, and street photographs.
- » Edit, organize, and share your photos.
- » Create smooth-looking videos.

I wanted this book to work perfectly for users of all Android makes and models. As of this writing, there are 1,300 brands that produce over 24,000 distinct Android devices. And each brand is able to custom design the look and feel of their Camera app and settings. As it's impossible to create a book that addresses the exact options of all 24,000 Android devices, I've been able to craft this book using the universal Google Photos app. The look of the Google Photos app is mostly consistent throughout all 1,300 Android brands. When the look of the Camera app differs slightly from manufacturer to manufacturer I make sure to explain that your own device may differ slightly in appearance to my examples. But not to worry! The differences are often as minor as the shape or color of an icon, and no more.

To reach the highest number of Android users possible, I created this book using three Android smartphones and both Android 10 and 11 operating systems. These three devices span three segments of the market:

- » The single lens Motorola Moto G7 Play using the Android 10 operating system. This budget phone won't be upgraded to Android 11.
- » The single lens Google Pixel 4a using the Android 11 operating system. This mid-range phone will eventually be upgraded to Android 12 when the new operating system is released.
- » The Samsung Galaxy S21 Ultra 5G using the Android 11 operating system. This professional-level smartphone features a very high quality multi-lens camera system.

It's possible that you have a phone from a different manufacturer, such as HTC, Xiaomi, or Sony. As the pre-loaded Google Photos app is universal in its appearance and functionality, you will be more than fine following along with each tip and technique.

It's also important to mention that I took all the photography examples in this book with my previously mentioned three Android smartphone models.

Foolish Assumptions

This book assumes that you may know nothing about smartphone photography, yet is also highly accessible and valuable to those who may consider themselves as advanced amateurs. *Android Smartphone Photography For Dummies* guides you through the best practices of mobile photography, helping you gain a new creative outlet to express yourself!

So to start you out on a path to photographic success, I assume that you

- » Have an Android smartphone and its operating system is up to date.
- » You have access to Wi-Fi or use a data plan with your mobile phone provider.

Other than these two presumptions, I explain everything else in the book in great detail so that you never feel overwhelmed or bogged down.

Icons Used in This Book

This book, like all *For Dummies* books, uses icons to highlight certain paragraphs and to alert you to particularly useful information. Here's a rundown of what those icons mean:



TIP

A Tip icon means I'm giving you an extra snippet of information that may help you on your way or provide some additional insight into the concepts being discussed.



REMEMBER

The Remember icon points out information that is worth committing to memory.



The Technical Stuff icon indicates geeky stuff that you can skip if you really want to, although you may want to read it if you're the kind of person who likes to have the background info.



The Warning icon helps you stay out of trouble. It's intended to grab your attention to help you avoid a pitfall that may harm your smartphone or photos.

Beyond the Book

In addition to what you're reading right now, this product also comes with a free access-anywhere Cheat Sheet. To get this Cheat Sheet, simply go to www.dummies.com and search for "Android Smartphone Photography For Dummies Cheat Sheet" in the Search box.

Where to Go from Here

Throughout this process of discovering the ins and outs of Android smartphone photography, take inspiration from other photographers who have mastered their preferred photographic genre. Instagram is a good resource for this. However, it's critical that you don't allow yourself to feel bad if your photos are not up to that level. Practice creating photographs every day, if possible, and you will most certainly see your abilities improve radically over a short period of time.

Creativity is in everyone to some degree, and it's often the case that we simply need a guide to kick-start that engine. It's my hope that this book will serve that function and help you to master the technical parts, which will free you to absorb the artistic aspects of smartphone photography. I know that you can do it!

1

**Using Your
Camera Straight
out of the Box**

IN THIS PART . . .

Get an introduction to Android smartphone photography.

Take an Android camera tour.

Set up your Android camera for best results.

Take a deep dive into the Camera app.

- » Discovering the differences between single and multi-lens Android cameras
- » Understanding the differences between the many Android OS manufacturers
- » Taking photos using your phone's built-in camera
- » Viewing, editing, and sharing your photos

Chapter **1**

Introducing Android Smartphone Photography

Whether you're brand new to photography using a smartphone, or new to the Android operating system, the aim of this chapter is to familiarize you with the basics so you can get out and start photographing as soon as possible. It's such an incredible feeling to have a powerful camera always with you, in your pocket, bag, or purse. After reading through this introduction to Android cameras, you should feel confident creating images with a smartphone. The photo opportunities await, so get excited about your Android smartphone and its surprisingly high-quality cameras!

Becoming Familiar with Your Android Camera

In the fantastic world of Android-powered mobile devices, you find a wide assortment of lens combinations. Each manufacturer of Android-based smartphones offer a single camera (often with a slightly wide-angle view), and the majority offer what is called a multi-lens combo. It's common these days to see Android smartphones with three cameras plus a front-facing selfie camera.



REMEMBER

If you own a single lens Android smartphone, don't feel that you're stuck with creating mediocre photos. The Google Pixel 4a, for example, only has one front-facing camera lens but it beats many of its competitors that have multiple lenses! What is more important than how many lenses your smartphone has is your ability to craft an image. What this means is how you compose your photo, how you use light to your advantage, and the emotion or narrative that you add to your images are skills that usually have more weight than just pure technical knowledge. This book helps you develop those skills, regardless of how many lenses your smartphone has.

The following list explains a rough description of the most common Android smartphone lens combinations. Some smartphones have one lens, some two, some three, and a few have four or more lenses. Multi-lens smartphone camera lenses are usually described as

- » **Ultra-wide:** Made for sweeping landscapes or interior architecture.
- » **Wide-angle:** This is usually the default general-use lens for all smartphones.
- » **Telephoto:** More of a zoomed-in look, great for portraits and nature.
- » **Super-telephoto:** Very zoomed-in look, perfect for distant wildlife and even for capturing a full moon!

Single-lens models

When someone mentions that their smartphone has a single lens, they're usually referring to what's called the rear, or back-facing lens, not the *selfie* lens that faces you and allows you to take a photo of yourself (more on selfies in Chapter 2). If your smartphone only has one lens, which is usually called a wide-angle lens, don't feel left out! Most of the great documentary, photojournalism, and street photographers of the past and present have created their best work with a single wide-angle lens. You can do the same.

Figure 1-1 shows off the small but powerful single wide-angle lens on the Google Pixel 4a. Keep in mind that the lens is the darker circle, and the white circle is the flash.



FIGURE 1-1:
The single-lens Google Pixel 4a.

Dual-lens models

Dual-lens Android devices are getting harder to find these days. The most popular options are single-lens and triple-lens combinations. Figure 1-2 shows an example of the Xiaomi Mi Mix 2S with its two lenses. This device, plus many other dual-lens devices have a wide-angle view from one lens, and what is often called by the manufacturers a *telephoto* view from the second lens. *Telephoto* usually refers to a view that appears more zoomed-in than what the human eye sees.



REMEMBER

If you have a DSLR camera or are familiar with traditional film photography, the use of the word *telephoto* by the manufacturers of dual-lens smartphones is sometimes a bit of a stretch. Often what they call the telephoto lens is actually what photographers call a *normal field of view*, which would be similar to a 50mm prime (non-zooming) lens in traditional photography terms. If you don't know what any of that means, no problem! All you need to know is that the wide-angle lens is great for architecture and landscape photography, and the second telephoto lens is better for portraits and general smartphone photography.

Triple-lens models

While not always the case, a triple-lens Android smartphone usually has an ultra-wide, wide, and telephoto lens combination. An ultra-wide lens fits in a lot of the

scene in front of you, such as whatever is in front of your feet, the landscape, and a lot of the sky. This camera type is great for vast, expansive landscape photos. The normal wide-angle lens is great for traditional street photography, photojournalism, and documentary work. The telephoto lens view is perfect for portraits and to a certain extent, wildlife.

FIGURE 1-2:
The dual-lens Xiaomi wide-angle and telephoto lenses.



© Xiaomi Corporation

Figure 1-3 shows the triple-lens design of the Sony Xperia 5 II. If you're familiar with full-frame DSLR or SLR cameras, the Xperia's three lenses have focal lengths of 16mm, 24mm, and 70mm.

FIGURE 1-3:
The Sony Xperia 5 II with its triple-lens camera combination.



© Sony Corp

Models with more than three lenses

Four lens Android smartphones are very popular, and there are so many great options to choose from. As of the writing of this book, the Samsung S21 Ultra 5G is probably the most highly regarded Android device for photographers, but of course that will change as new devices come on the market. Figure 1-4 shows the S21 Ultra's four lenses, which range from ultra-wide, wide, telephoto, and super telephoto views. Don't be fooled by what appears to be a fifth lens on this Samsung, which is actually a laser autofocus sensor. Many of Samsung's competitors have similar lens combinations and focal lengths. There are also five lens Android smartphones available, such as the Nokia 9 PureView and no doubt many more in the future.

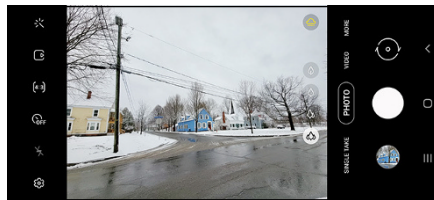


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FIGURE 1-4:
The impressive quad-lens Samsung S21 Ultra 5G.

It may be a bit hard to visualize what all the lens descriptions really mean without a visual example. Figure 1-5 shows the view from each of the Samsung S21 Ultra 5G's four lenses.

ultra-wide-angle 13mm



wide-angle 26mm



telephoto 70mm



super-telephoto 240mm



FIGURE 1-5:
The view from the four types of lenses on the Samsung S21 Ultra 5G.

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Taking a Look Around the Camera App

As the author of this book, I've been confronted almost daily with the struggle that each manufacturer has their own *take* on the Android operating system. That means that the appearance of your own Camera app may look slightly different than the three examples that I show you in this section. However, while the shapes and appearances of the icons look different between the manufacturers, the meaning of the icons are usually universal and easy to understand. For example, Figure 1-6 shows the typical view of a budget-friendly Motorola Camera app.



Figure 1-7 shows the appearance of the Google Pixel 4a Camera app. The icons look different than the previously mentioned Motorola Camera app of Figure 1-6. Take a look at both figures and you see that extra camera options are visible at the top of the Motorola screen, but are hidden behind a downward-pointing arrow at the top of the screen on the Google Pixel 4a.



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FIGURE 1-6:
The Motorola Moto G7 Play smartphone Camera app appearance.



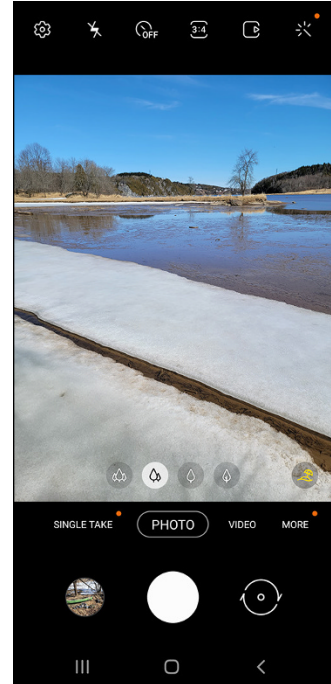
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FIGURE 1-7:
The Google Pixel 4a smartphone camera app appearance.

MORE

Figure 1-8 shows the appearance of the Samsung S21 Ultra 5G Camera app. Again, the icons look different than the two previously mentioned Android smartphones. This Samsung smartphone is considered a *flagship* model, which means that it's geared toward power-users and professionals. Even more camera option icons are visible, and many more are accessible at the bottom of the photo preview by tapping the More icon. Flagship models from any manufacturer have a lot of camera options to give the photographer as much manual control as possible.

To close the Camera app, Android manufacturers have different ways to go about it. For example, if you have a Google Pixel, place your finger or thumb at the bottom of your smartphone screen and swipe in an upward motion. Other smartphones have three icons at the bottom of your screen that perform functions such as opening your previous app and accessing all your apps.



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Taking a Picture

FIGURE 1-8:

The Samsung S21 Ultra 5G smartphone Camera app appearance.

Regardless of what Android smartphone you own, the Camera app is always recognizable as an icon in the shape of a traditional camera. The Camera icon is most often visible on your home screen. Some Android smartphone manufacturers require you to long-press the Camera icon for about one second, others allow for a quick tap of the Camera icon, and still others require that you hold the Camera icon and then slide your finger in a slight upward motion. Figure 1-9 shows a typical home screen of a Google Pixel smartphone, with the Camera app at the bottom right.

Alternatively, if you're already within your Android device and you can see all your apps, simply tap the camera icon. Figure 1-10 shows an example of the Camera app icon within the app page.

With your Camera app open, find a good scene that you want to photograph and tap the large white shutter button circle, as shown in Figure 1-11. The term *shutter button* is a hold-over from traditional SLR and DSLR cameras, where the camera's shutter would physically open and close when the button was pressed. Smartphones don't have physical shutters like bigger cameras; however, the *shutter button* name has been adopted for smartphones.



FIGURE 1-9:
A typical Google Pixel home screen with the Camera app icon.

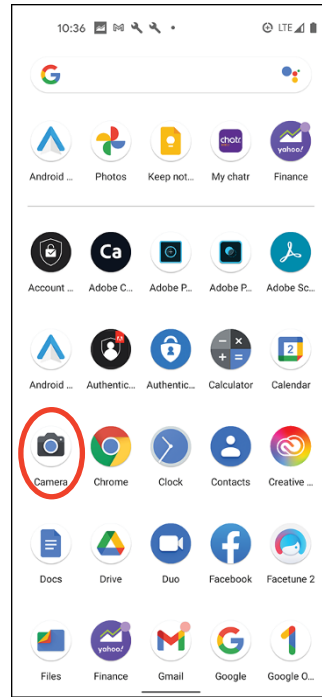


FIGURE 1-10:
The Camera app icon within the apps page.

FIGURE 1-11:
Tap the shutter button to take a photo.

