

1.18 Composing Images—Introduction

Images can be composed in one of two ways—using an optical viewfinder or viewing through the lens.



◀ Optical viewfinders found on most point and shoot cameras show the view through a separate window. These viewfinders often show as little as 90% of the image area. The missing area around the edges can be critical to your composition.



◀ Photographers love rangefinder cameras because their viewfinders show an area larger than the one that will be captured—the area indicated by the white lines. This lets you anticipate action because you can see things before they enter the frame.

Optical Viewfinder



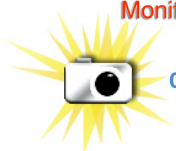
Monitor

◀ Many cameras offer both an optical viewfinder and an LCD monitor that shows the view through the lens.



▲ SLRs, LCD monitors, and electronic viewfinders show the view through the lens and usually show the entire image area. There are two ways this is done. The SLR uses a mirror and prism to project the image into the viewfinder. Other cameras take the signal right off the image sensor and display it on an LCD monitor or electronic viewfinder. If you connect your camera to a TV set or a TV tuner in your computer, the TV or computer screen actually becomes a very large monitor that shows the view through the lens.

Camera courtesy of Samsung at www.samsung.com.



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1.19 Composing Images—Orientation

One of the creative choices you have to make is how to orient the camera—in portrait or landscape mode, or any angle in between.

Many cameras now have an orientation sensor that detects when you rotate the camera into portrait mode. During playback it then rotates any photos taken in that mode so they can be played back without rotating the camera. This is especially helpful if you connect the camera directly to a TV set for a slide show.



◀ Camera rotated during shooting.

▼ Camera held normally during playback.



▲ Sometimes tilting the camera lends a different feeling to a photo.



▲ Landscape mode (left) gives you an image that is wider than it is tall. Portrait mode (right) is the opposite.



1.20 Composing Images—Optical Viewfinders

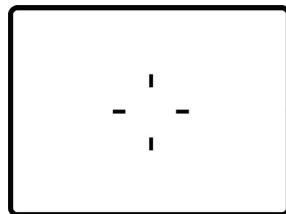
Animation

Because an optical viewfinder is offset somewhat from the lens, you don't see the same area that is captured. The difference is negligible when shooting landscapes or group shots but can become a problem when doing portraits or close-ups. To see this yourself, place your index finger in front of your nose and then alternately close each eye so one acts as the viewfinder and the other the lens.

▼ Here the view through the optical viewfinder (red) does not align perfectly with the view seen through the lens (yellow).



▲ When using any viewfinder, you should always be aware of the image area at the edges and not just the center of interest.



▲ Most optical viewfinders only indicate where the camera will focus (left). Some have parallax correction lines (right) that guide you when composing images close-up.



▲ Parallax is caused by the distance between the viewfinder windows and the lens.



▲ Many cameras have a diopter adjustment slider or dial that lets you adjust the viewfinder's sharpness.



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1.21 Composing Images—LCD Monitors

Most cameras have both an optical viewfinder and LCD monitor. The monitor is used to display menus, compose pictures (except on SLR cameras), and play them back. A few cameras have no optical viewfinder so you have to use the monitor to compose your pictures—something that may be difficult in bright light.



▲ Many cameras have connectors and cables for displaying your photos on a TV set or a computer with a TV tuner. You can also connect it when taking photos and it then displays what would otherwise be displayed on the much smaller camera monitor.

Photo courtesy of Rick Ashley at www.rickashleyphotographer.com.

▼ Most cameras let you adjust the brightness of the monitor. This is the standard icon for this feature.



▲ The best monitors swivel and tilt so you can shoot from ground level or over the heads of a crowd. Being able to change the monitor's angle also helps you find a position where glare doesn't make the screen unreadable.



◀ Display size matters when sharing photos, and the Kodak EasyShare One has a 3 inch monitor.

Photo courtesy of Kodak at www.kodak.com.



1.22 Composing Images–LCD Monitors, con't.



▲ Monitor sizes are measured diagonally and larger ones let you check your results more carefully and share them with others. Most range between about 1.5 and 2.5 inches but there are larger and smaller—currently topping out around 4 inches.



◀ Transparent monitor covers keep monitors from being scratched. They are cheap and easy to replace.



▲ Kodak's EasyShare One has a touch-sensitive monitor and stylus you use to change settings and add photos to albums and perform other functions.



▲ Monitors are easier to read when clean. Use only products designed to clean these fragile surfaces without scratching them.



▲ If glare is a problem for you, there are companies that make monitor hoods, shades or visors that shield the screen from direct light. Some even include a magnifier.

Courtesy of www.hoodman.com.

▼ Monitors usually have an on/off switch. This is the commonly used monitor on/off button icon.



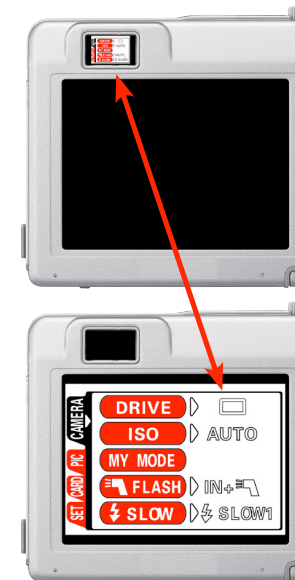
1.23 Composing Images—Electronic Viewfinders

Some cameras use an electronic viewfinder (EVF), basically a small *microdisplay* in the viewfinder. Although similar to the LCD monitor on the back of most cameras, these displays are smaller and viewed close to the eye instead of being viewed directly.



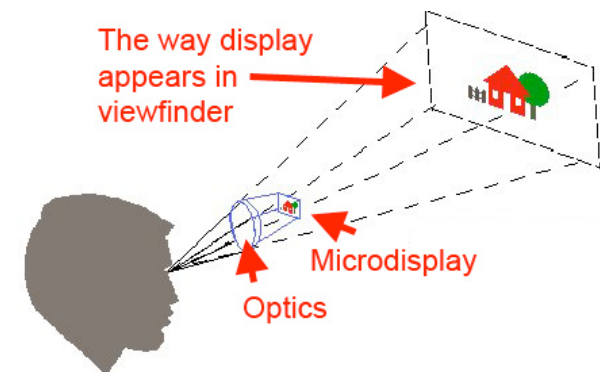
▲ The best thing about electronic viewfinders is that they can also display menus and let you review photos without being bothered by glare, and if the viewfinder also has a diopter adjustment you can read menus without putting on reading glasses as you may have to with a monitor. They also consume less battery power than the larger monitor.

The worst thing about them is that they often don't have enough pixels to give you a sharp, detailed view and their refresh or frame rate is so low they tend to lag behind the actual scene when you pan the camera to follow action.



◀ Cameras with an electronic viewfinder often let you switch between it and the monitor when composing images or using menu commands.

The way display appears in viewfinder



▲ An optical system makes the electronic viewfinder appear at a much greater viewing distance from the eye than it actual is.

Image courtesy of www.insightmedia.info/whatisamd.htm.



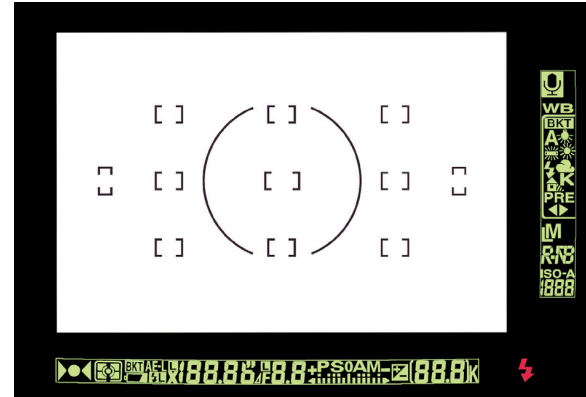
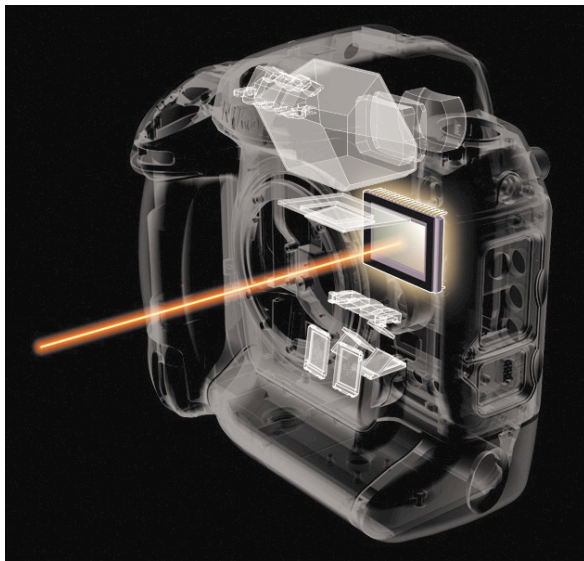
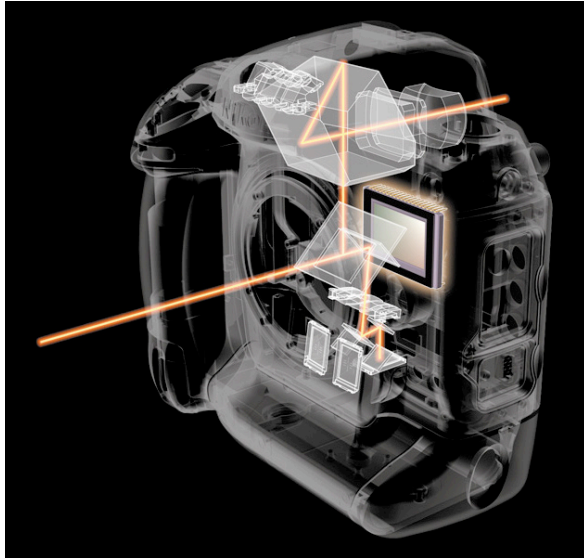
1.24 Composing Images—Single-Lens Reflexes (SLRs)

Animation

► You see through the lens of an SLR because light enters the camera through the lens, bounces off a mirror up into a prism which projects it out the viewfinder.

When you take a picture the mirror swings up out of the way so the light hits the image sensor.

Images courtesy of Nikon Imaging at www.nikon.com.



▲ SLR viewfinders display not only the image but a variety of information such as focus areas (the square brackets) shutter speeds and apertures. Here all of the information on a Nikon is shown although only a small portion is displayed at any time.



▲ Professional cameras often let you change the focusing screen in the viewfinder.

Courtesy of Olympus at www.olympus.com.



Prism photo courtesy of Konica/Minolta at konicaminolta.com.



▲ SLRs have eyepiece covers that prevent light from entering the camera when you are not looking through the viewfinder. Light leaking in can affect the exposure.



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