Buying guide – DIGITAL CAMERAS

Introduction

Chances are if your shopping for a digital camera it's not your first. Most likely you're one of the many digital camera users that have an older digital camera model. Customers most often note that their older digital cameras quickly burn through batteries or are slow to respond once they've press the shutter release. Luckily these are largely problems of the past; today's cameras offer more speed, a more conservative power consumption, more pixels, more zoom, more compactness, more storage, and more automation. Pixel count is still the biggest deciding factor in determining a camera's price, followed by compactness, lens quality and zoom capabilities, and finally LCD screen size and resolution.

When shopping for a digital camera your first considerations should be those of use. What will the majority of my pictures be of (people, landscapes, sports, etc.)? Most cameras are good for general shooting, so try to get specific here. Also consider how you will share the pictures (photo album, email, internet galleries)? Answering these questions should give you an idea of what you functions you need versus what you would like. The size camera that is right for you depends, mainly, on how frequently it will be used. Smaller cameras tend to get used more often, because they're less obtrusive and easier to carry. Alternatively, mid-size compacts can be a good compromise between price and size if you don't mind sporting a hip case. There is no one answer that applies to all users. Considering the above factors will serve as a good starting point. Read further to explore other options and get a better idea of which model camera will suit your individual needs.

What's Available

The leading innovators in the realm of digital photography are Canon, Casio, Fuji, Nikon, Olympus, Panasonic, and Sony. Before the late nineties digital camera were novel and the choices were very limited. Today there are so many models to choose from it can be dizzying. Consequently, there's a model to fit everyone.

Types of digital cameras

Small has always been pervasive in the world of electronics. So it comes as no surprise that the latest subcompacts weight-in at a mere 5 to 8 oz, and are designed to be pocket-sized. This is the choice for those that want to carry their camera everywhere. This is not what to get for grandma, the controls are tiny.

Your standard **compacts** are definitely too big for your pocket, but are a perfect size for the handbag, glove box, or maybe even a sporty hip case. These cams tip the scales at 14oz at their heaviest and 7 oz at their slimmest. Compacts are recommended for general use and are simple to use; although, they can be a bit limiting.

For the photo enthusiast, sticking to a budget, there are **SLR-like** digitals. This hybrid category shares most, but not all, the versatility of a full SLR. Though not equipped with an interchangeable lens, SLR-like lenses start out wider and zoom more than most point and shoot models. Yet, they lack true optical through the lens viewing, and have a greater shutter release lag time than an SLR.

SLRs, or Single Lens Reflexes, are the bulkiest and heaviest type; the trade off for the extra girth is speed, versatility, and an interchangeable lens. SLRs are best suited for an artist or someone who has taken a photo class or two. Although they can essential be point 'n shoot as well, SLRs are overkill for most people. However, if you're a lover of candid photography this

type offers very little, if any, lag time between when the shutter is press and when the photo is snapped. Other advantages include: larger image sensor, continuous shooting, RAW images, and super long battery life. Pro-sumer SLR models are great choice for a lighter alternative, but lack the durability of professional models. If you are a heavy shooter that pulls the camera out, more often than not, go big and go pro.

What to look for in a digital camera

With such a wide selection of digital cameras on the market, it could get a little confusing finding the one perfectly suited to your needs. Below, we further identify and discuss important features you should look for when shopping for a digital camera.

1. **Resolution:** A digital camera's resolution is a large factor in determining a camera's price. This number tells you how many pixels the sensor holds. One million pixels equal one megapixel. A 6 megapixel camera is sufficient for most folks. More isn't always better, especially if other components are overlooked. Beware not to choose a model based solely on pixel count, lens quality and sensor build effect the overall photograph just as much. Those who frequently crop photos may want to consider a higher pixel count. This gives you more pixels to play with, improving the resolution of the cropped photo. For light commercial applications, you may want go for a camera with an 8-10MP resolution. The more pixels you begin with the more detail is visible even when the photo is reduced for web use.

2. **Interface:** Obviously, the images from a digital camera are viewable on a computer, but they can also be shared on a television. Digital cameras use universal serial bus (USB) connectivity for computer interface. Newer models offer USB 2.0 connectivity for faster data transfer. Most cameras are plug_and_play, if not, drivers are provided on the CD documentation that comes with the cam. In all cases where the memory is removable, a card reader should be employed. This will save the camera's battery as well as minimize the risk of data loss during image transfers. This data loss most often occurs when the camera battery dies during transfer. The camera should also have a TV-out which provides a connection to the television for viewing the photos or movies directly on the TV. Most cameras provide an analog signal, but cameras pushing digital signals using HDMI interfaces are slowly making there way into the market. If you have a HDTV with HDMI you should look for this in the specs. Some Panasonic blu-ray players have card slots to accommodate memory card from Panasonic digital camera.

3. **PC compatibility:** If you have older PC with only a serial port, an upgrade is in order. USB PCI cards are an inexpensive add-on, this will also require at least Windows 98 second edition. If you aren't looking to upgrade or perform surgery on you PC. A few cameras come with serial cables still; if your system requires one make sure you double check that this cable is included. Mac OSX compatibility isn't an issue for image transfer, however the software included with the camera should be checked for Mac OSX support.

4. **Zoom:** A zoom lens provides flexibility in framing shots and compensates for the distance between you and the subject. They're great if you prefer a mix of wide and tight shots. Zoom ranges have steadily increased over the years, yielding ranges as wide as 18mm-200mm for some SLR lens. On non-

SLR models a 3x zoom lens starts out around 24mm-28mm, great for group shots, and they zoom to a moderate telephoto, about 105mm, perfect for head shots. You should look in to getting more zoom especially if you want to shoot sports are wildlife. The zoom feature on non-SLRs magnifies either through **Optical or Digital zoom**. Optical zooms produce better results. As the name suggests, optical zooms magnify through actual camera lens adjustments; whereas, with a digital zoom the camera enlarges the image by cropping the pixels from the image and enlarging pixels in the center of the frame. Digital zooms invariably compromise the resolution of the image. For the most part, digital zooms should be ignored when comparing models. The same effect can be achieved by cropping the image in post-processing. In order to maintain a slim profile some subcompacts use an **internal zoom**. This zoom configuration lens is superior to the **telescopic zooms** present on most models. Telescopic zooms are out in the open and they are more vulnerable to damage because of it. Being protected in the camera body greatly reduces the chances of an internally zooming lens becoming misaligned and blurred. Also, internal zooms won't jam and render an otherwise functioning camera useless.

5. **Memory cards:** Buy a digital camera that has a card slot for the flash memory cards. This offers additional storage space to the in-built memory of the camera. The maximum memory card capacity supported can be as high as 2 GB, but **buy at least 256 megabytes** this will give most cameras about 150 shots. High speed cards are a wasted on less expensive models, but they will improve transfer speed when downloading shots, if a card reader is used. **Allow more storage for demanding uses**. This allows you to click a larger number of high resolution photos and shoot longer higher resolution videos. Several types of memory cards are available are Compact Flash (CF), Secured Digital (SD), Multimedia, Smart Media, Memory Stick, Memory Stick PRO Duo and XD. Because contact pins can bend and break if the card is inserted incorrectly, a flat contact is generally preferable to the pin contacts present in CF cards.

6. **Battery:** Digital cameras run on rechargeable lithium-ion or nickel metal hydrate batteries. They are the preferred choice because they have a far better battery life when compared to the alkaline batteries. Many camera manufactures have proprietary batteries that can be costly to replace. There is no conclusive evidence that this specialized power packs performs any better than rechargeable AA batteries. Some models can use both for maximum versatility. AA batteries are more economical, and can easily be found if your every in a pinch.

7. **LCD screen:** The LCD screen is where you will actually view the pictures you have captured or the videos you have shot. The LCD screen should preferably have a size of around at least 2.5 inches to offer a better view of photos and videos. An LCD screen uses a larger amount of the battery power. So it makes sense to get a camera that offers the option of turning off the LCD when taking photos. An automatic power safe mode usually takes care of this. When short on battery life it is nice to have the option of an optical viewfinder instead of relying on the LCD at all times. Touch screen interfaces have slowly made their way into higher priced models this allows you to make adjustment while keeping an eye on you subject; also, touch screens allow controls to easily be read in the a darken room.

8. **Image stabilization:** An image stabilizer reduces the amount of shaking that occurs from hand-holding a camera. Some stabilizers are optical, most are digital. Optical stabilizers work by using a floating lens element which attempts to compensate for any camera shake. The more common, less expensive, digital image stabilizers use a technique that shifts the electronically the image from frame to frame, enough to counteract the shaking motion. It's also worth noting different manufactures refer to this feature differently. Canon calls it Image Stabilization (IS), Panasonic and Leica call it MegaOIS, and Sony calls it Super Steady Shot (SSS). As always, mounting your camcorder on a tripod is the surest way of getting a steady shot. If you're not using a tripod using both hands and bracing you elbows against your chest is the next best thing.

Making the right decision

Prior to buying a digital camera, it's best to thoroughly analyze the camera you have singled out based on the above mentioned parameters. You should also view its sample pictures online and read reviews from existing owners and tech editors to find out whether the camera meets their expectations. After all, value is king.

To help you decide what part of the price spectrum you'd like to explore we invite you to view the various digital cameras offered at www.etronics.com. We offer cameras and camera accessories from reputed companies such as Sony or Canon. We offer a wide range of price points for digital camera on the following links: $100 - $200, $200 - $300, $300 - $500, $1000 - $2000.