

Camera Anatomy & Functions

Types of Cameras (keywords)

- **P&S (Point & Shoot)**- Fixed Lens. Look for the Zoom Factor (8X zoom +). Having an optical view finder as well as the LCD for shooting in sunlight (can't see the LCD screen). What is the image quality like? Megapixels (Smaller sensor size- 10= standard prints & Larger Sensor size- 12-14 Large prints/ close-ups) Review battery requirements for your camera (rechargeable/ standard). Small, easy to carry around.
- **MILC (Mirrorless Interchangeable-lens camera)** - Most recent format of cameras. Announced in 2008, this type of camera is supposedly to be the best of both worlds; quality of a DSLR in a body of a P&S. This is achieved by using the same sensor used in a DSLR but without the through-the-lens optical viewfinder. Without the optical viewfinder, no need for a bulk body. Some models **does not have even an electronic viewfinder.**
- **DSLR (Digital Single Lens Reflex)**- Adapt lenses. Greater control over exposing settings. Can shoot in the RAW format, which gives total control over the editing.

Within these areas, there are a few categories to choose from:

- P&S Beginner's Compact- entry-level camera (\$50-\$100)
- P&S Mid-range compact- 3x zoom range (\$80-\$200)
- MILC (\$500 - \$1000)
- DSLR Prosumer-consumer/ professional (\$250-\$10,000)

CAMERA ANATOMY

- **Power Switch**
- **Lens** focuses the scene. The lens could be plastic but is usually glass; also, it may be immobile or may extend from the camera body when you turn the camera on or adjust focus. (Leashes & Neck Straps)
- **Lens Cover**- protects the lens. The cover may slide automatically or detach manually as a lens cap (Don't lose it).
- **Shutter Release Button**- usually has two steps. Press partly to set the focus and all the way down to take the picture.
- **Shutter**- inside the camera. Covers the sensor and "moves out of the way" when the shutter release button is pressed all the way.
- **Viewfinder (VF)**- lets you put your eye next to the camera to compose a shot. The area you see in the VF may be a little bit more or less than the area of the picture. The VF may be optical (clear glass or plastic) or electronic (EVF). An EVF displays useful information about camera settings but may be hard to see in bright light.
- **Liquid Crystal Display (LCD)**- shows the scene and camera settings before you take the picture. A large (at least 3 inches), bright LCD is great for viewing pictures after you take them and for dealing with menus and other settings. Some LCDs are touchscreens enabling you to use menus with your finger. Some LCDs fold out from the back of the camera, allowing you to hold the camera high or low for a different perspective.
- **Viewfinder/ LCD Toggle**- switches between an EVF and the LCD display (which is better for menus, macros, and reviewing your photos)
- **Review or playback control**- shows the pictures you've already taken on the LCD or EVF.
- **Image Sensor**- receives the incoming image, which is processed into a stored file. The image sensor is likely to be a charged-couple device (CCD) or complementary metal-oxide semiconductor (CMOS). The more important issue is the size of the sensor: Compact P&Ss have the smallest sensors, where DSLRs have much larger. Image sensor size matters most in advanced editing and printing photos.
- **Batteries**- power all camera functions. Some cameras require special batteries, some use generic.

- **Storage or Memory Card**- holds your pictures. Most cameras have a built in storage but that is limited.
- **Mode Dial**- turns to enable you to switch among settings for different conditions, such as sporting events or nighttime (Always remember the 2 most important questions for photographers- "Is something moving?" "How much light is there?"). The mode dial contains the following settings- P,S,A,M,ISO
- **Function Dial (Navigation Rosette)**- provides buttons necessary in menus, such as up, right, down, and left. The center of the function dial is a raised button for OK or Enter. Most cameras assign additional functions to these five controls when you are not using a menu, such as the self-timer and flash control.

CAMERA SETTINGS

Your camera may have all or some of the following settings:

- **Flash Control**- turns the flash on (forces flash)
- **Self-Timer**- lets you jump into the picture before it's taken
- **Video Control**
- **Image Stabilization******- reduces shakiness or blurring and is critical for zoomed photos and some low-light photos.
- **Focus Control*****- lets you set a specific distance between the camera and the subject to override autofocus. This is most useful when autofocus is unreliable, especially in low light.
- **Burst Mode**- lets you hold down the shutter button to capture as many photos as possible in rapid succession, which is especially used in sports or with wildlife.
- **Bracketing Mode**- takes multiple shots when you press the shutter button, but adjusts each shot's exposure quality slightly. This is useful in situations where the camera may be wrong about automatic settings or you may be wrong about manual settings.
- **Face or Smile Detection**- assures the camera focuses on faces. Newer technology can actually delay the exposure until everyone in the photo is smiling. (There is no sincerity filter:)
- **Panorama Mode**- prompts you to slowly pan your camera from side to side as the camera shoots multiple shots and stitches them into one wide exposer.
- **GPS (Global Positioning System)**- tags each photo with the global coordinates of that location (latitude and longitude). This process is called *geotagging*.

EXPOSURE SETTINGS

Preset Scene Modes

- **Landscape** (mountain-like triangular shape) mode sets the focus to infinity or wide depth of field
- **Macro** (flower)- mode sets the focus very, very, close --- a fraction of an inch
- **Sports** (runner or golfer)- mode takes very fast pictures to freeze the action
- **Nighttime** (crescent moon or star)- mode adjusts for low light
- **Video** (piece of film)- mode turns your camera into a camcorder

CREATIVE MODES

- **Aperture Priority (A or AV, for Aperture Value)**- lets you control the size of the lens opening (aperture); the camera adjusts the shutter speed. A bigger aperture lets in more light, which is best in low-light conditions, but has a narrower depth-of-field (how deep an area is in focus). A smaller aperture lets in less light but has a deeper depth-of-field, which is best for a landscape on a bright day. Aperture values appear stamped on the camera lens.
- **Shutter Priority (S or Tv, for Time Value)**- is the opposite of Aperture Priority: You control the speed of the shutter; the camera controls the aperture. Capturing action requires a faster/higher shutter speed. A slower shutter speed is appropriate for low light.
- **Manual (M)**- enables you to control both the aperture and the shutter speed. Manual control enables total control over the exposure.

EQUIPMENT

- Filters
- Tripod / Monopod
- External flash hot-shoe
- Bouncer / Reflector
- Remote Controls
- Memory cards- get the largest capacity you can afford. The different types of flash memory cards for use in digital cameras are: Secure Digital (SD), CompactFlash (CF), Memory Stick (MS), MultiMediaCard (MMC) xD-Picture Card (xD) and SmartMedia (SM). The type of memory card you use is dictated by which digital camera you buy. *These cards are physically different and are NOT INTERCHANGEABLE.*
- Memory Card Reader (a MUST!)
- Cleaning Gadgets