personal english

Semantic Field #27

Photography

Camera Body

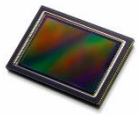
Wide-Angle Lens

Standard Zoom Lens

Telephoto Lens

Macro Lens

Flash



CMOS Sensor

Shutter

Memory Card

Tripod

A **digital single-lens reflex camera** (also called DSLR) is a digital camera that combines the optics and mechanisms of a single-lens reflex camera with a **digital imaging sensor**, as opposed to **photographic film**. In the **reflex design scheme** light travels through the lens, then to a mirror that alternates to send the image to either the **viewfinder** or the image sensor. A DSLR differs from non-reflex single-lens digital cameras in that the viewfinder presents a direct optical view through the lens, rather than being captured by the camera's image sensor and then displayed by a digital screen. Most SLR and DSLR cameras provide the option of changing the lens. The **aperture** of a lens is the opening that regulates the amount of light that passes through the lens itself. It is controlled by a **diaphragm shutter** inside the lens, which consists of a number of thin blades which briefly uncover the camera aperture to make the exposure. The relative aperture is specified as an **f-number**, the ratio of the lens focal length to its effective aperture diameter: a small f-number like f/2.0 indicates a large aperture, while a large f-number like f/22 indicates a small one. The **focal length** of a lens, together with the size of the image sensor in the camera (or size of the 35 mm film), determines the **angle of view**. The focal length of a zoom lens can be varied between a specified minimum and maximum value. A **standard focal length** is one that produces about the same image as the human eye would see with no magnification. A **wide angle lens** is one that has a shorter focal length than a standard lens does – which produces less magnification of the object and a wider field of view than the standard lens. A **telephoto lens** is one that has a longer focal length than normal, which produces greater magnification of the object and creates a narrower field of view than the normal lens. **Macro lenses** are designed for extreme close-up work.