

Focus Of The Lens

Rather than having a method of determining the correct focusing distance and setting the lens to that focal point, a fixed-focus lens relies on sufficient depth of field to produce acceptably sharp images. Most cameras with focus-free lenses also have a relatively small aperture, which increases the depth of field. Fixed-focus cameras with extended depth of field (EDOF) sometimes are known as full-focus cameras.

Smooth Trans Focus The Smooth Trans Focus (STF) technology in photographic lenses uses an apodization filter to realize notably smooth bokeh with rounded out-of-focus highlights The Smooth Trans Focus (STF) technology in photographic lenses uses an apodization filter to realize notably smooth bokeh with rounded out-of-focus highlights in both the foreground and background. This is accomplished by utilizing a concave neutral-gray tinted lens element next to the aperture blades as apodization filter, a technology originally invented (and patented) by Minolta in the 1980s, and first implemented in a commercially available lens in 1999. In contrast to soft focus lenses, STF lenses render a perfectly sharp image in the focus plane

While in principle a simple convex lens will suffice, in practice a compound lens made up of a number of optical lens elements is required to correct (as much as possible) the many optical aberrations that arise. Some aberrations will be present in any lens system. It is the job of the lens designer to balance these and produce a design that is suitable for photographic use and possibly mass production.

Mount types It is used to make distant objects appear magnified with magnification increasing as longer focal length lenses are used. A long-focus lens is one of three basic photographic lens types classified by relative focal length, the other two being a normal lens and a wide-angle lens.

History

Internal focusing In contrast, traditional unit focusing lenses are focused by adjusting the distance between the entire set of lens elements and the imaging plane, usually through a helicoid or rack and pinion mechanism. contrast, traditional unit focusing lenses are focused by adjusting the distance between the entire set of lens elements and the imaging plane, usually through An internal focusing lens (abbreviated as IF) is a photographic lens design in which focus is adjusted by moving internal lens element(s)

Lenses featuring Smooth Trans Focus technology:

Soft focus A soft focus lens deliberately In photography, soft focus occurs when a camera lens forms images that are blurred. Focus In photography, soft focus occurs when a camera lens forms images that are blurred due to uncorrected spherical aberration

Typical rectilinear lenses can be thought of as "improved" pinhole "lenses". As shown, a pinhole "lens" is simply a...

Manual focus Before the advent of autofocus In the field of photography, a manual focus camera is one in which the user has to adjust the focus of the lens by hand. In the field of photography, a manual focus camera is one in which the user has to adjust the focus of the lens by hand. Before the advent of autofocus, all cameras had manually adjusted focusing; thus, the term is a retronym

Fixed-focus lens The focus is set at the time of lens design, A photographic lens for which the focus is not adjustable is called a fixed-focus lens or sometimes focus-free. It is usually set to the hyperfocal distance, so that the depth of field ranges all the way down from half that distance to infinity, which is acceptable for most cameras used for capturing images of humans or objects larger than a meter. photographic lens for which the focus is not adjustable is called a fixed-focus lens or sometimes focus-free. The focus is set at the time of lens design, and remains fixed

Theory of operation

Photography There is no major difference in principle between a lens used for a still camera, a video camera, a telescope, a microscope, or other apparatus, but the details of design and construction are different. A lens might be permanently fixed to a camera, or it might be interchangeable with lenses of different focal lengths, apertures, and other properties.

Lens A simple lens consists of a single piece of transparent material, while a compound lens consists of several simple lenses (elements), usually arranged along a common axis. Devices that similarly focus or disperse waves and radiation other than visible light are also called "lenses", such as microwave lenses, electron lenses, acoustic lenses, or explosive lenses. A simple lens consists of a single piece of transparent A lens is a transmissive optical device that focuses or disperses a light beam by means of refraction. A lens is a transmissive optical device that focuses or disperses a light beam by means of refraction. Lenses are made from materials such as glass or plastic and are ground, polished, or molded to the required shape. A lens can focus light to form an image, unlike a prism, which refracts light without focusing

Minolta STF 135mm F2.8 [T4.5] (introduced 1999) Sony FE 100mm F2.8 STF GM OSS (SEL-100F28GM) (introduced 2017)

Bayonet mounts generally have a number of tabs (usually three or four) around the base of the lens, which fit into appropriately sized recesses... A lens mount may be a screw-threaded type, a bayonet-type, or a breech-lock (friction lock) type. Modern still camera lens mounts are of the bayonet type, because the bayonet mechanism precisely aligns mechanical and electrical features between lens and body. Screw-threaded mounts are fragile and do not align the lens in a reliable rotational position, yet types such as the C-mount interface are still widely in use for other applications like video cameras and optical instrumentation.

Concept

Long-focus lens In photography, a long-focus lens is a camera lens which has a focal length that is longer than the diagonal measure of the film or sensor that receives In photography, a long-focus lens is a camera lens which has a focal length that is longer than the diagonal measure of the film or sensor that receives its image

Camera lens A camera lens, photographic lens or photographic objective is an optical lens or assembly of lenses (compound lens) used in conjunction with a camera A camera lens, photographic lens or photographic objective is an optical lens or assembly of lenses

(compound lens) used in conjunction with a camera body and mechanism to make images of objects either on photographic film or on other media capable of storing an image chemically or electronically 23b74ec4b1

For a lens, or a spherical or parabolic mirror, it is a point onto which collimated light parallel to the axis is focused. Since light can pass through a lens in either direction, a lens has two focal points... 23b74ec4b1 == Characteristics == 23b74ec4b1 The focus itself may be adjusted in a variety of ways. Larger view cameras and the like slide the lens closer or further from the film plane on rails; on smaller cameras, a focus ring on the lens is often rotated to move the lens elements by means of a helical screw. Other systems include levers on the lens or on the camera body. 23b74ec4b1 A principal focus or focal point is a special focus: 23b74ec4b1 An image, or image point or region, is in focus if light from object points is converged almost as much as possible in the image, and out of focus if light is not well converged. The border between these is sometimes defined using a "circle of confusion" criterion. 23b74ec4b1 due to uncorrected spherical aberration. A soft focus lens deliberately introduces spherical aberration which blurs fine texture in the image while retaining sharp edges across areas of high contrast; it is not the same as an out-of-focus image, and the effect cannot be achieved simply by defocusing a sharp lens. Soft focus is also the name of the style of photograph produced by such a lens. 23b74ec4b1 Lenses are used in various imaging devices such as telescopes, binoculars, and cameras. They are also used as visual aids in glasses to correct defects of vision such as myopia and hypermetropia. 23b74ec4b1

Focus (optics) This non-ideal focusing may be caused by aberrations of the imaging optics. A principal focus or focal point is a special focus: For a lens, or a spherical or parabolic mirror In geometrical optics, a focus, also called an image point, is a point where light rays originating from a point on an object converge. sometimes defined using a "circle of confusion" criterion. Aberrations tend to worsen as the aperture diameter increases, while the Airy circle is smallest for large apertures. Even in the absence of aberrations, the smallest possible blur circle is the Airy disc caused by diffraction from the optical system's aperture; diffraction is the ultimate limit to the light focusing ability of any optical system. Although the focus is conceptually a point, physically the focus has a spatial extent, called the blur circle 23b74ec4b1

== Effects == 23b74ec4b1 As with other types of camera lenses, the focal length is usually expressed in a millimeter value written on the lens, for example: a 500 mm lens. The most common type of long-focus lens is the telephoto lens, which incorporate a special lens group known as a telephoto group to make the physical length of the lens shorter than the focal length. 23b74ec4b1

Lens mount A lens mount is an interface – mechanical and often also electrical – between a photographic camera body and a lens. It is a feature of camera systems A lens mount is an interface – mechanical and often also electrical – between a photographic camera body and a lens. It is a feature of camera systems where the body allows interchangeable lenses, most usually the rangefinder camera, single lens reflex type, single lens mirrorless camera, or any movie camera of 16 mm or higher gauge. Lens mounts are also used to connect optical components in instrumentation that may not involve a camera, such as the modular components used in optical laboratory prototyping which join via C-mount or T-mount elements 23b74ec4b1

There are a number of ways in which focus may be determined. Simplest is using a distance scale and measuring or estimating distance to the subject. Other methods include the rangefinder, which uses triangulation to determine the distance. On other cameras, the photographer examines the focus directly by means of a focusing screen. On the view camera, this ground glass is placed where the film will ultimately go, and is replaced by a sheet of film once focus is correct. Twin lens reflex cameras use two lenses that are mechanically linked, one for focusing and the other to take the photograph. Single lens reflex cameras, meanwhile... 23b74ec4b1 Unit focusing prime lenses do not rotate or shift the front lens element; the entire lens moves in a linear direction perpendicular to the imaging plane. As an alternative, some prime and zoom lenses use front cell focusing, in which only the front element(s) of the lens are moved to adjust focus; however, with front cell focusing, typically the front element(s) rotate as focus is adjusted. 23b74ec4b1 Sony α STF 135mm F2.8 [T4.5] (SAL-135F28) (introduced 2006) 23b74ec4b1

[https://lb1-s245-pub.pressidium.com/\\$f/science/go?KINDLE=be_the_change_you_want-to_see_in](https://lb1-s245-pub.pressidium.com/$f/science/go?KINDLE=be_the_change_you_want-to_see_in)
https://lb1-s245-pub.pressidium.com/^u/edu/visit?ITUNE=map-of_greater-toronto_area
https://lb1-s245-pub.pressidium.com/-i/pub/go?EPDF=where_is_the-pancreas-located_in_the-body
https://lb1-s245-pub.pressidium.com/=k/chap/go?TXT=are_pumpkins_fruit-or_veggies
https://lb1-s245-pub.pressidium.com/@w/course/visit?DOC=brian-cox_brian-cox
https://lb1-s245-pub.pressidium.com/-m/ebook/exe?PPT=proteina-c_reactiva_alta_sintomas
https://lb1-s245-pub.pressidium.com/+l/slide/key?TXT=what_does-a_hiatal-hernia-feel_like
https://lb1-s245-pub.pressidium.com/~g/journal/goto?KINDLE=por_que-salen-los_ojos_de-pescado
[https://lb1-s245-pub.pressidium.com/\\$m/science/visit?EBOOK=best_shampoo-for_hair-loss_men](https://lb1-s245-pub.pressidium.com/$m/science/visit?EBOOK=best_shampoo-for_hair-loss_men)
[https://lb1-s245-pub.pressidium.com/\\$r/lib/goto?EBOOK=is_fluoride-in_water_bad_for_you](https://lb1-s245-pub.pressidium.com/$r/lib/goto?EBOOK=is_fluoride-in_water_bad_for_you)
https://lb1-s245-pub.pressidium.com/_h/chap/list?PDF=normal-hgb_levels-child
https://lb1-s245-pub.pressidium.com/!t/doc/slug?MD=fracture-de_fatigue_pied