

A close-up, artistic photograph of a camera lens. The lens is the central focus, showing its intricate internal elements and the outer barrel. The lighting is dramatic, with vibrant blue and orange hues creating a sense of depth and focus. A glowing cyan border frames the image, adding a futuristic or technological feel. The text "LENS" and "The Eye of the Camera" is overlaid in white, bold, sans-serif font.

LENS
The Eye of the Camera

LENSES: The Eye of the Camera

- Lenses gather & intensify light. This affects the exposure of an image.
- Lenses control the focus of an image.
- Different lenses provide varying fields of view

LENSES: The Eye of the Camera

LENSES: Field of View

Field of view: (FOV) is the open, observable area a person can see through their camera. FOV is the maximum area that the device can capture.

Lenses: Designed with different focal lengths, which provides varying fields of view.

Focal Length: the distance from the lens to the image plane.

The Three Main Focal Lengths



Wide 10-15mm

These lenses have a very wide angle of view.

Good for landscape shots or architectural photos.



Normal 35-50mm

A standard lens, is a lens with a focal length between 35mm to 50mm. The focal length of standard lenses are most similar to how the human eye sees the world.



Telephoto 70-200mm

A long-focus lens.

A telephoto lens makes a photographic subject appear closer than it actually is.

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Classifications Of Focal Lengths

- A prime lens does not zoom in or out. It has a fixed focal length.
- A zoom lens can change the focal length (zoom in or out).

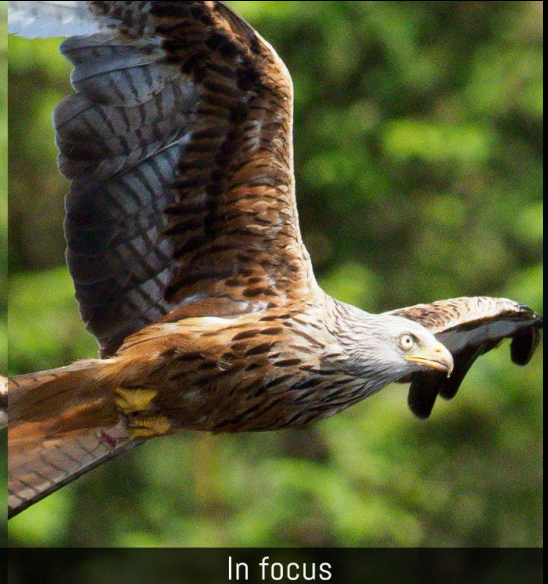
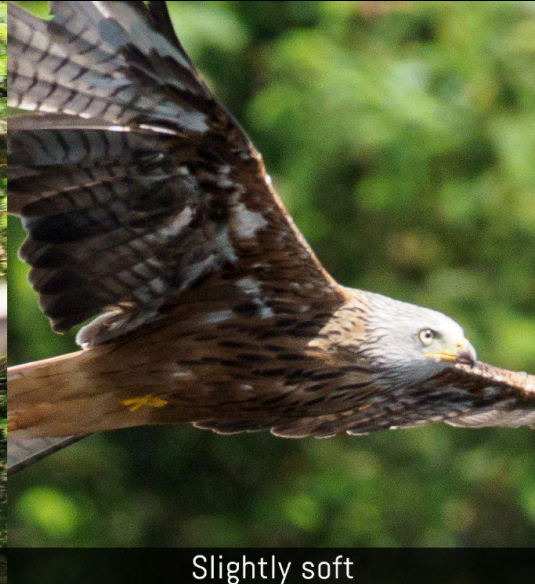
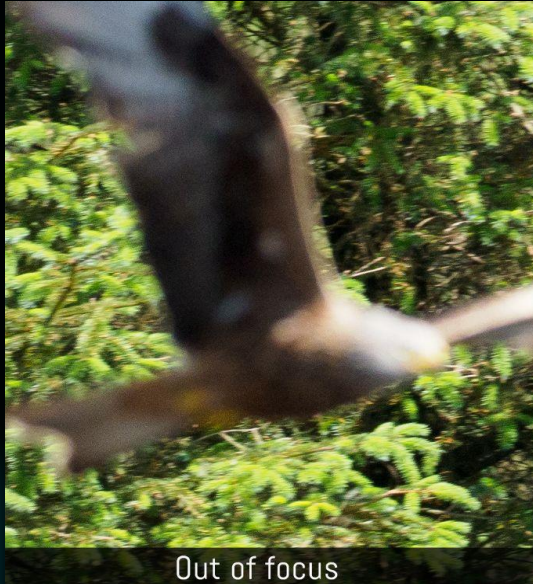


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LENSES: Focus

FOCUS: The image (or section of) is sharply defined

A lens is focused by moving it closer to or farther away from the image sensor. An image is in focus when what you see through the viewfinder is sharp.



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Depth of Field

Depth of field: The distance between the closest and farthest objects in a photo that is in focus. Depends on the **focal length**, **f-stop**, and the **distance from the camera to the subject**.



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Aperture: Iris opening of a lens.

Depth of field: The distance between the closest and farthest objects in a photo that is in focus.

The smaller the f-stop, the more light that passes through. Creating "shallow depth of field."



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Distance: Increase the distance between the camera and your subject. You can get a nice effect by moving away from the subject and zooming in on them, or making sure they're separated from the background.



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Focal Length: The longer (telephoto) your focal length, the shallower your depth of field.



70mm



135mm



200mm