



Photography

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+ What is camera?

- a device that consists of a lightproof chamber with an aperture fitted with a lens and a shutter through which the image of an object is projected onto a surface for recording (as on film) or for translation into electrical impulses (as for television broadcast)





BOX CAMERA

- A box camera is a simple type of camera, the most common form being a cardboard or plastic box with a lens in one end and film at the other. They were very popular in the late 19th and early 20th centuries.



A classic box camera.





CAMCORDER

- The earliest camcorders are tape-based, recording analog signals onto videotape cassettes.
- Earlier, the term camcorder exclusively referred to a camera with a recorder. But almost all of the electronic cameras built in 2006 provide recording capability essentially making them a "camcorder".



+ ANIMATION CAMERA

- adapted for frame-by-frame shooting animation or stop motion. It consists of a camera body with lens and film magazines, a stand that allows the camera to be raised and lowered, and a table, often with both top and underneath lighting.



An animation camera
manufactured by Crass,
Berlin, in 1957.

+ COMPACT CAMERA

- A still camera designed for simple operation
- Most use focus free lenses, automatic systems for setting the exposure options, and have flash units built in.



+ SINGLE LENS REFLEX

- A **single-lens reflex camera (SLR)** typically uses a mirror and prism system that permits the photographer to view through the lens and see exactly what will be captured



The historic [Zeiss Ikon VEB Contax S](#), manufactured in [Dresden](#), one of the two original [pentaprism](#) SLRs for eye-level viewing that went into production in 1949. The Italian [Rectaflex](#) offered its first production SLR, the series 1000, the same year.



DIGITAL SINGLE LENS REFLEX



- A **digital single-lens reflex** camera (also called a **digital SLR** or **DSLR**) is a digital camera combining the optics and the mechanisms of a single-lens reflex camera with a digital imaging sensor, as opposed to photographic film.



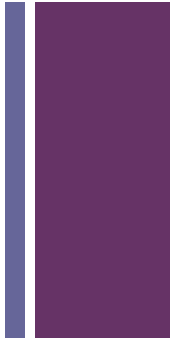
+ TYPES OF LENS

- Wide angle lens



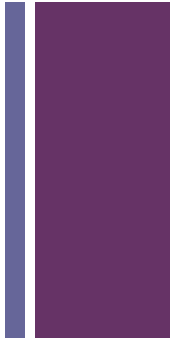


■ Standard lens

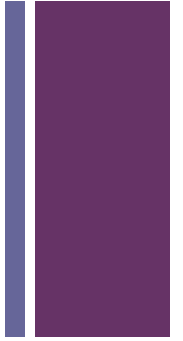




■ Telephoto lens



+ Micro Lens

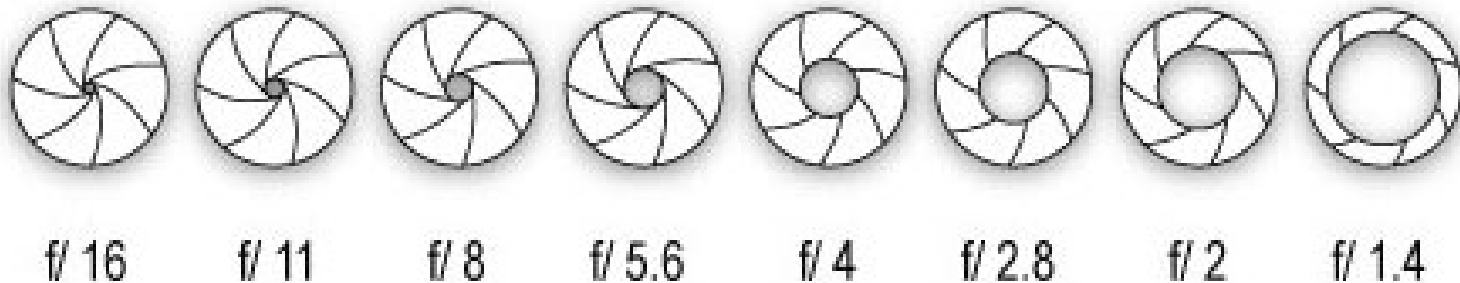


+ How to hold DSLR



+ Aperture

- Aperture refers to the opening of a lens's diaphragm through which light passes.
- It is calibrated in f/stops and is generally written as numbers such as 1.4, 2, 2.8, 4, 5.6, 8, 11 and 16.
- The lower f/stops give more exposure because they represent the larger apertures, while the higher f/stops give less exposure because they represent smaller apertures.

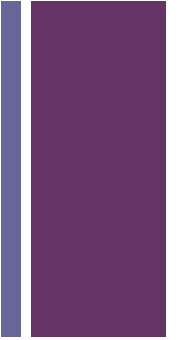




How aperture affects Depth of Field



- Depth of field is defined as "the zone of acceptable sharpness in front of and behind the subject on which the lens is focused." Simply put: how sharp or blurry is the area behind your subject. Here's the equation:
- The lower the f/stop—the larger the opening in the lens—the less depth of field—the blurrier the background.





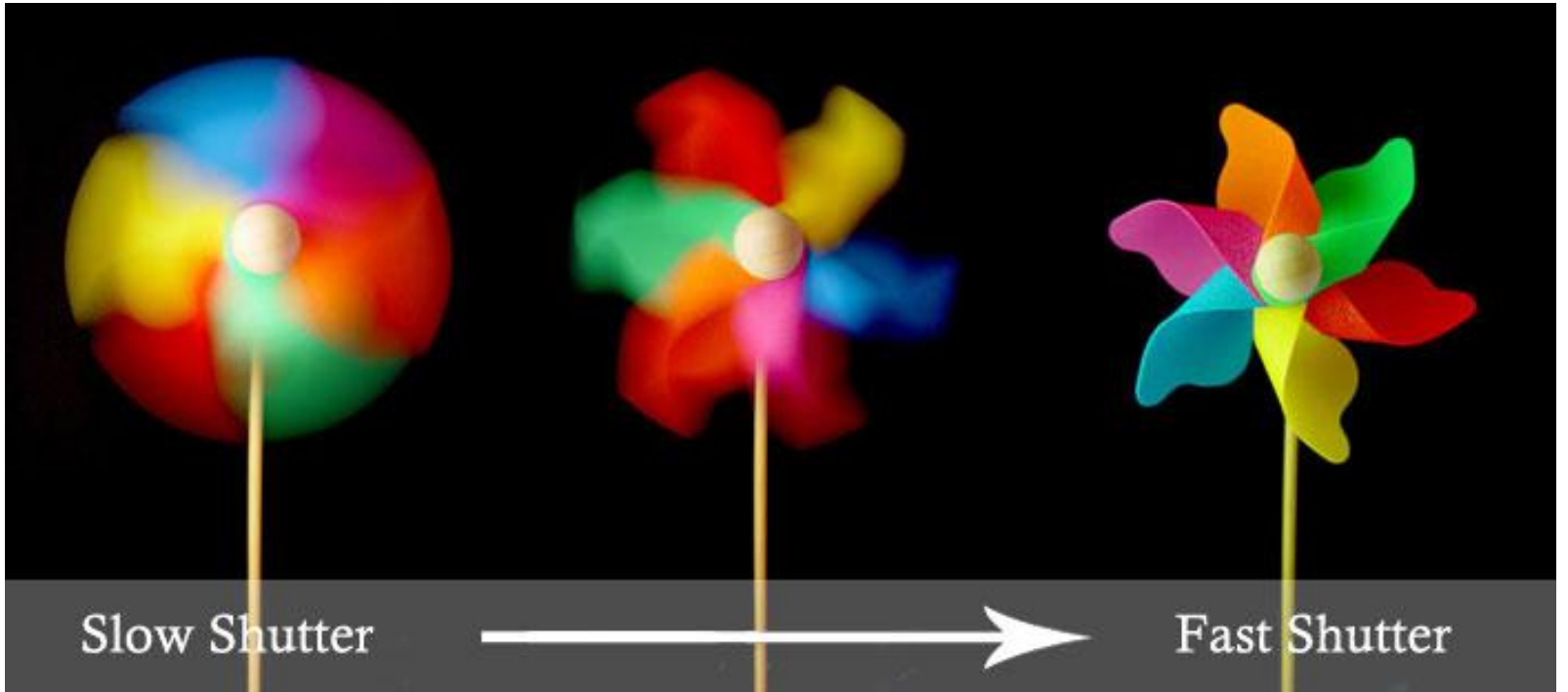
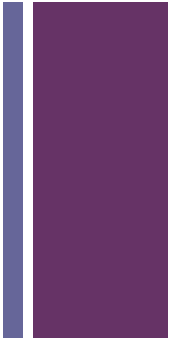
Camera shutter



- **What is camera shutter?**

a curtain in front of the camera sensor that stays closed until the camera fires.

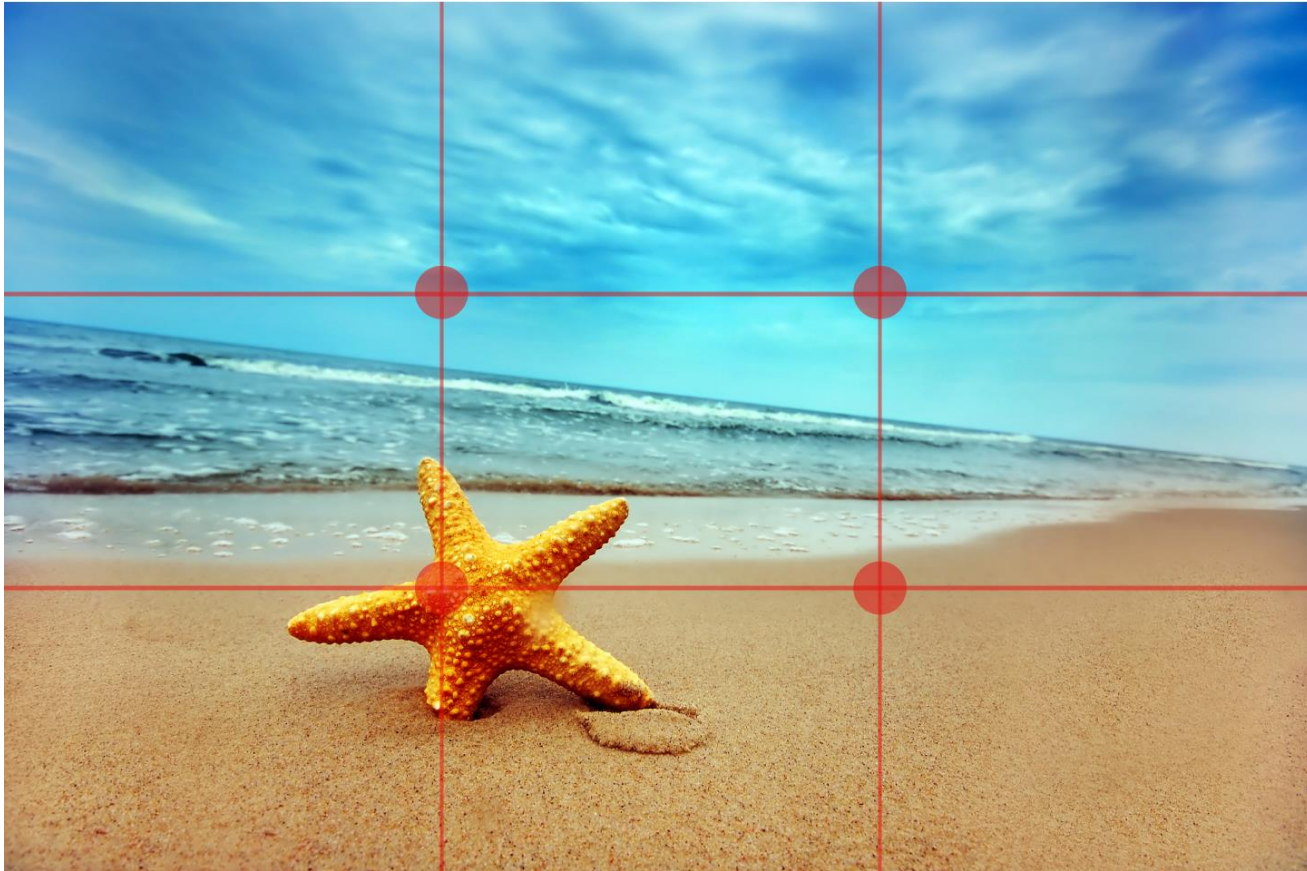
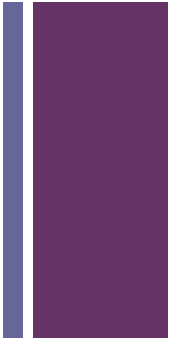
- When the camera fires, the shutter opens and fully exposes the camera sensor to the light that passes through the lens aperture.
- After the sensor is done collecting the light, the shutter closes immediately, stopping the light from hitting the sensor.
- The button that fires the camera is also called “shutter” or “shutter button”, because it triggers the shutter to open and close.

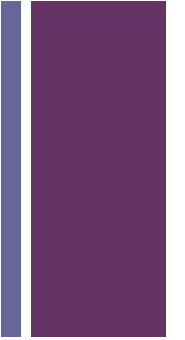


+ Rule of thirds



- The rule of thirds is a powerful compositional technique for making photos more interesting and dynamic.
- The rule of thirds states that an image is most pleasing when its subjects or regions are composed along imaginary lines which divide the image into thirds — both vertically and horizontally:







How to take pictures using your phone



- <http://blog.hubspot.com/marketing/good-pictures-phone-tips>