



The Shutter:

The shutter blocks all light from exposing the film UNTIL you press the button. Then it quickly opens and closes, giving the film a brief flash of light.

You can control the length of time the shutter remains open by setting the **SHUTTER SPEED**.

Longer shutter speeds = more light
Shorter shutter speeds = less light

Shutter Speed:

Determines HOW LONG the shutter stays open.

The longer exposures (like 1 second) give much more light to the film than a 1/1000 of a second exposure. So even though the number may look bigger, don't be deceived!

- Examples:**
- A half second exposure is **ONE STOP** darker than a one second exposure.
 - A 1/125 exposure is **TWO STOPS** brighter than a 1/500 exposure.
 - A 1/1000 exposure is **THREE STOPS** darker than a 1/125 exposure.

- Examples:**
- moving from f16 to f8 is: **TWO STOPS** brighter
 - moving from f5.6 to f8 is: **ONE STOP** darker
 - moving from f4 to f2.8 is: **ONE STOP** brighter

The Aperture:

Before light reaches film, it must pass through an opening called an "Aperture". The aperture is like a pupil. You can control the aperture by setting the "Aperture Opening", also known as an **F-Stop**.

Smaller F-stops numbers = larger openings
Larger openings = more light

Aperture Settings (F-Stops):

Like the pupil in a human eye, the aperture on a camera controls light. It does so by closing up to restrict light, and opening up to let it through.

brightness is reduced as light passes through an aperture

Every step in this table represents a ONE STOP change in light.

