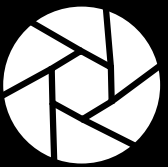


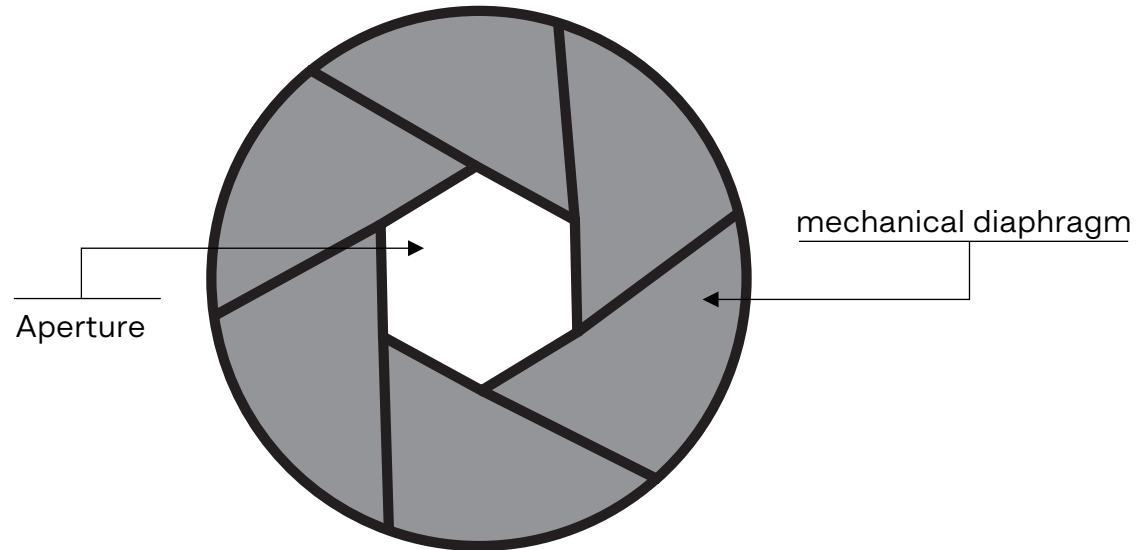


Let's talk about

Aperture



Aperture is the hole created by the **mechanical diaphragm** responsible for controlling the light that will travel through the lens and reach the camera's sensor.



WHAT

IS



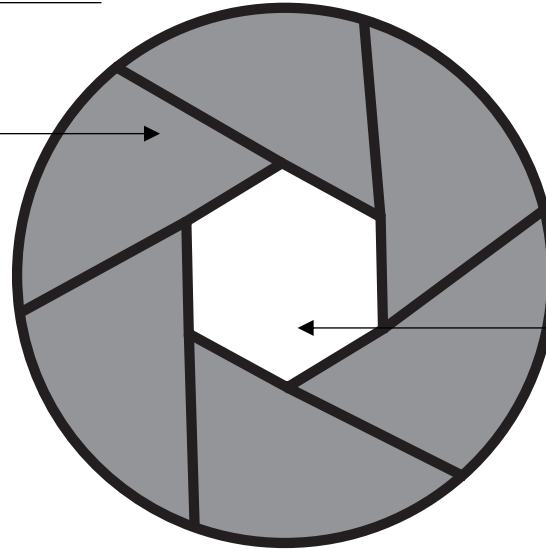
APERTURE IN PHOTOGRAPHY



In **photography**, Aperture is represented by f-stop.

f-stop is determined by the lens focal length and the Aperture diameter.

Lets assume that this represents the diaphragm of a 50mm lens.

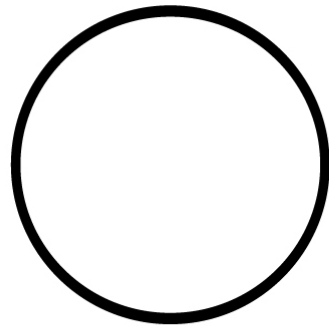


Also, lets assume the diameter of this hole is 6.25mm.

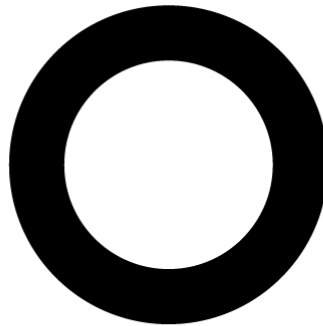
Thus, by dividing the focal length (50mm) by the hole diameter (6.25mm) we conclude this is a f/8 lens.

The **greater** the f/number = **smaller** the aperture.

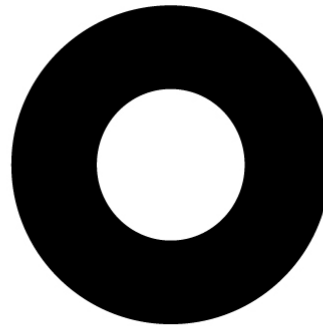
small aperture = small amount of light.



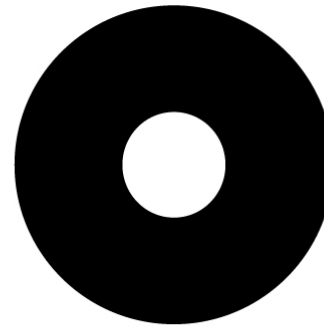
f/1



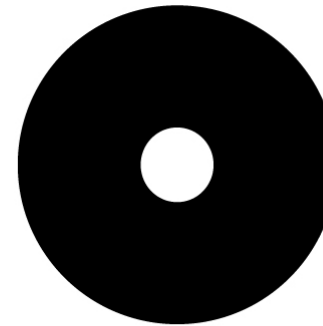
f/1.4



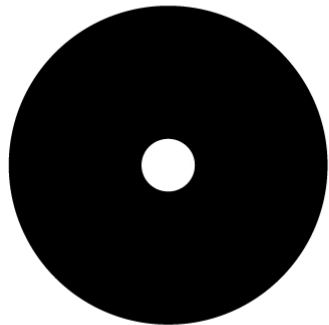
f/2



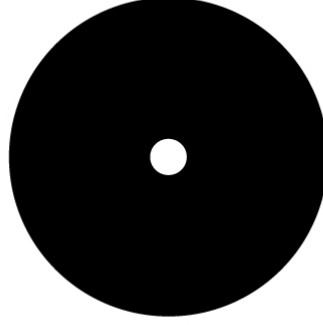
f/2.8



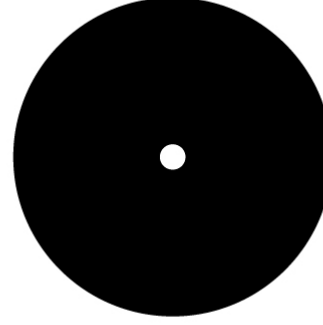
f/4



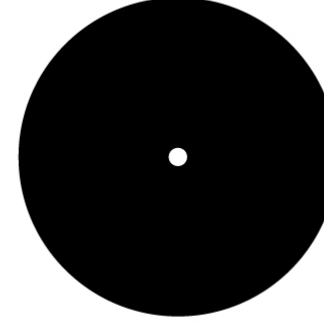
f/5.6



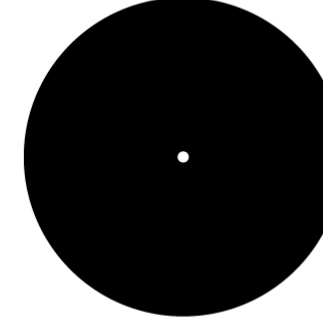
f/8



f/11



f/16



f/22

FAST LENSES AND APERTURE



By convention, lenses with $f/\text{stop} < 2.8$ are called “*fast lenses*.”

Fast lenses are ideal to work in low-light situation, but are usually more expensive and heavy.

But, how do you find the **max aperture** of your lens?





SO...

APERTURE

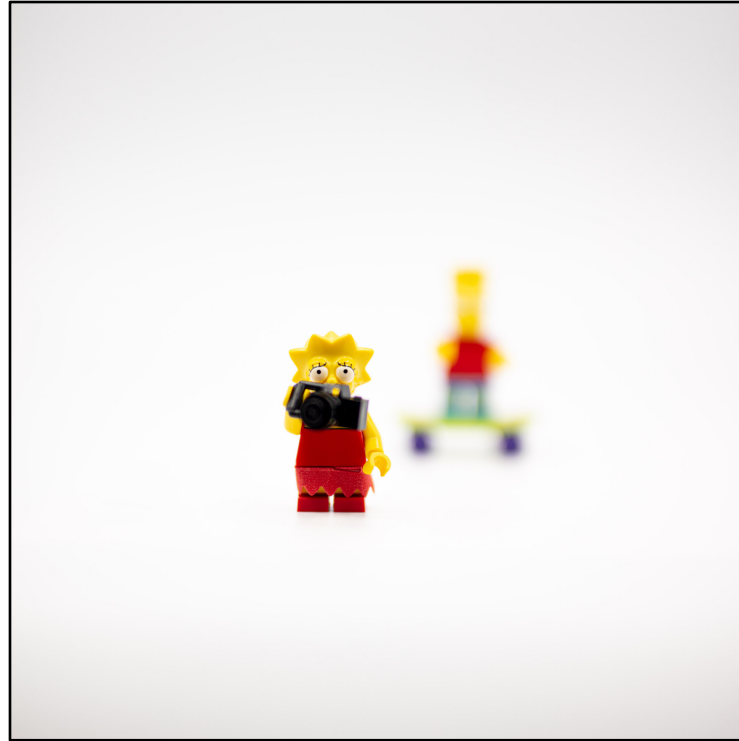
is one of the **parameter** to control

LIGHT

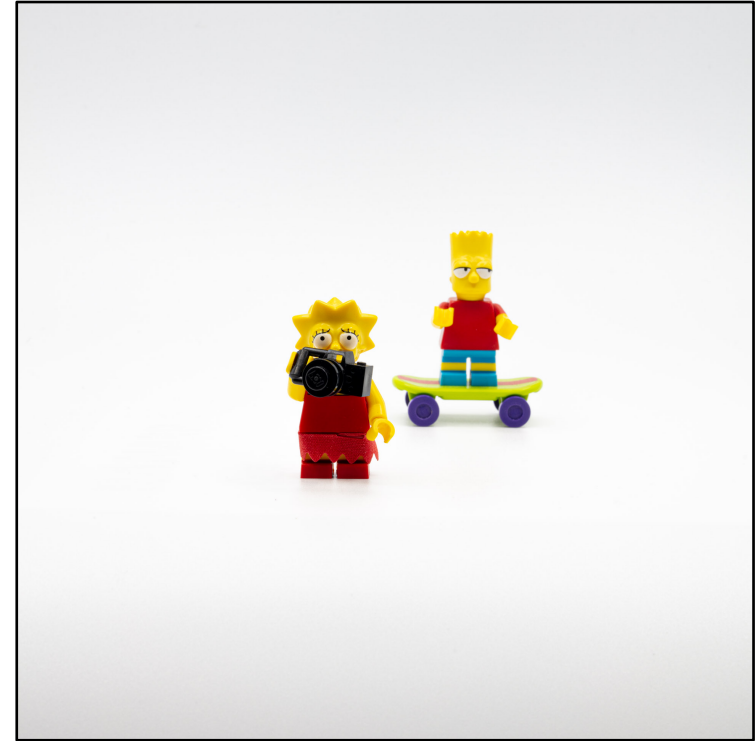
APERTURE IN
PHOTOGRAPHY

Besides controlling light, APERTURE also control

DEPTH OF FIELD



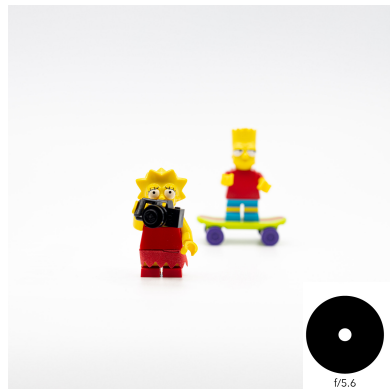
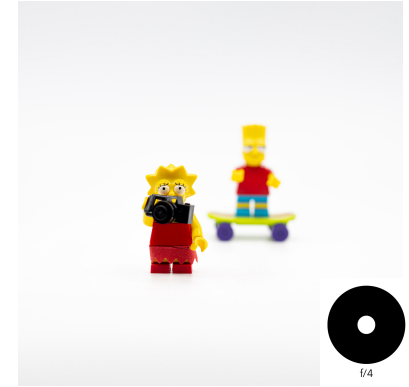
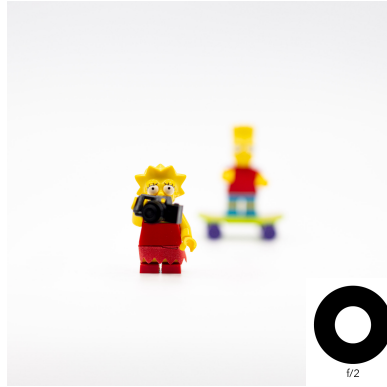
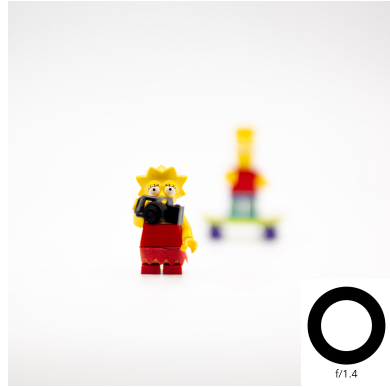
Shallow DoF



Deep DoF

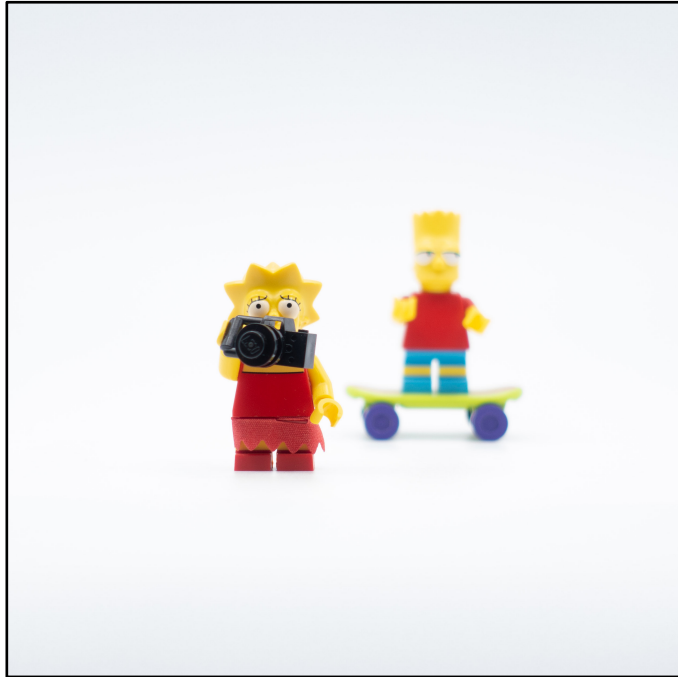
Large Aperture = Shallow depth of field

Small Aperture = **Deep depth of field**



Large Sensor = Shallow depth of field

Small Sensor = **Deep depth of field**



One inch sensor



Crop Sensor

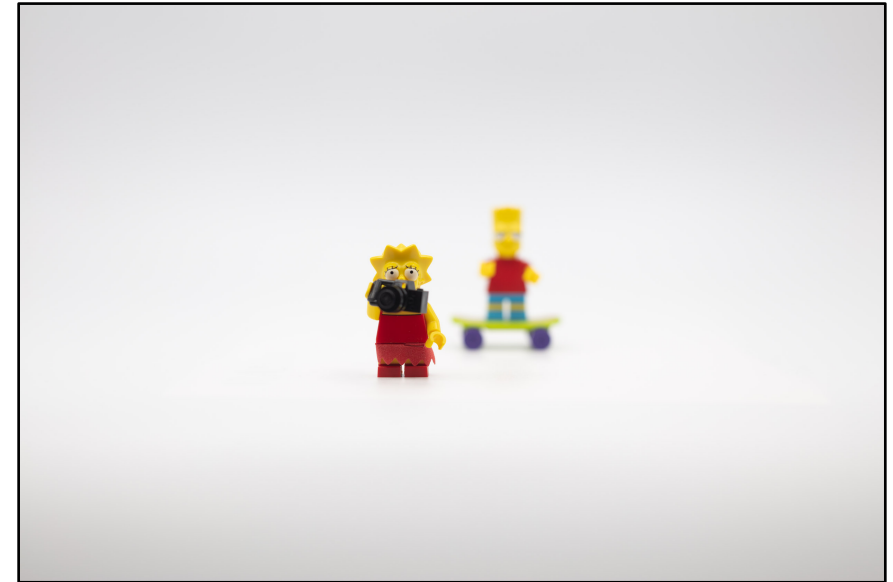


Full Sensor

Sensor Size, Cropping Factor, and Depth of Field



Crop Sensor



Full Sensor