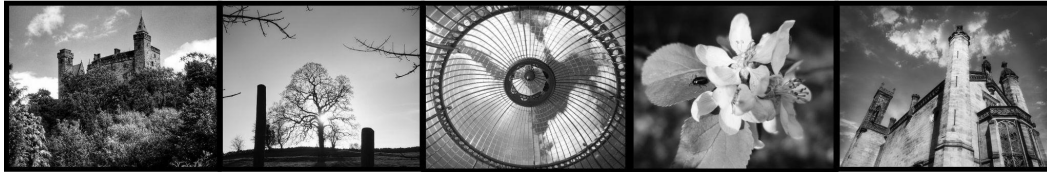


Aperture - a little refresher!

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DIGITAL ● FILM ● VIDEO ● SMART PHONE ● DRONE



Aperture

f-stop

1.8	2.8	4	5.6	8	11	16	22
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Camera mode:

Manual mode

Semi-auto mode - (AV)

Controls:

The amount of light passing through the lens

Depth of Field

f-stops

Low f-stop numbers: 1.8 - 2.8

“shooting wide-open”

Lets in most light

Shooting in low light

Shallow depth of field (*bokeh*)

f-stops

Higher f-stop numbers: 5.6 - 16

“Stopped down”

Lets in less light

Requires longer exposure (increased shutter speed)

Larger depth of field (increase in sharpness)

Examples: Low f-stop/shallow DOF

f1.4



Examples: Low f-stop/shallow DOF

f2.2



Examples: Higher f-stop/Larger DOF

f9



Examples: Higher f-stop/Larger DOF

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f8



Aperture - summary

F-stops - manual mode or semi-auto mode (AV)

Controls light & DOF

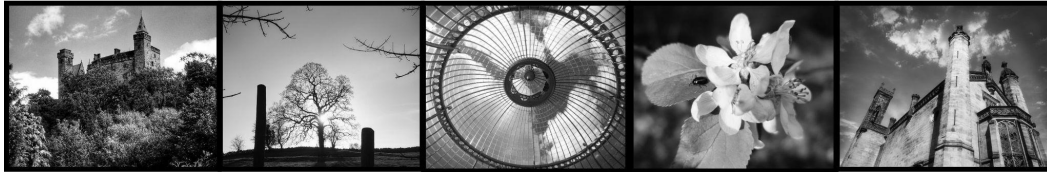
Low f-stop - 1.8-2.8, shallow DOF, portraits, subject isolation, low light shooting (handheld)

Higher f-stop - 5.6-16, larger DOF, landscape,

Long Exposure

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Long exposure is not.....

Rude

Chilly

Pervy

Illegal



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Long Exposure is...

An increased shutter time

Used to gather light for longer

Creatively used to capture/"smooth out" movement

Remove people/moving objects from scenes

Light painting/light trails

Astronomy

Low light

Use a tripod

Shoot as you normally would

Shutter speed typically 0.5sec - few seconds

Longer exposure to gather light, tripod keeps camera steady

Use timer or remote release (or app)

Night (incl. Light trails)

Tripod

Timer or remote release

f/8

15-30 secs

ISO 100



https://commons.wikimedia.org/wiki/File:A5_with_Frankfurt_airport_on_the_horizon_-_Autobahn_A5_mit_Flughafen_Frankfurt_am_Horizont_-_02.jpg

Movement

Long exposure in daylight typically used in landscape

“Smooths” movement in water, clouds, fields of grass, trees

Movement of these against still scene creates contrast/drama

Requires use of manual mode & ND filters

Example:

1/40 sec



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Example:

$\frac{1}{8}$ sec



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Example:

30 secs



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ND Filters

ND Filters block a specific amount of light

Allow for longer exposures during the day, where the same shutter speed would over-expose the image

ND factor	2	4	8	16	32	64	1000
stops	1	2	3	4	5	6	10

ND Filters - how to use

Focus & meter the scene as normal

Note given aperture, shutter speed & ISO

Switch to manual

Decide on shutter speed/ND filter desired

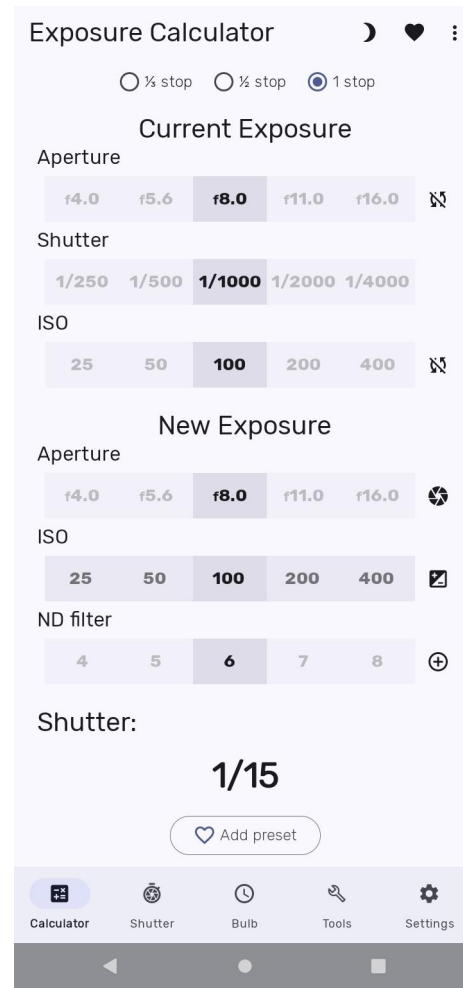
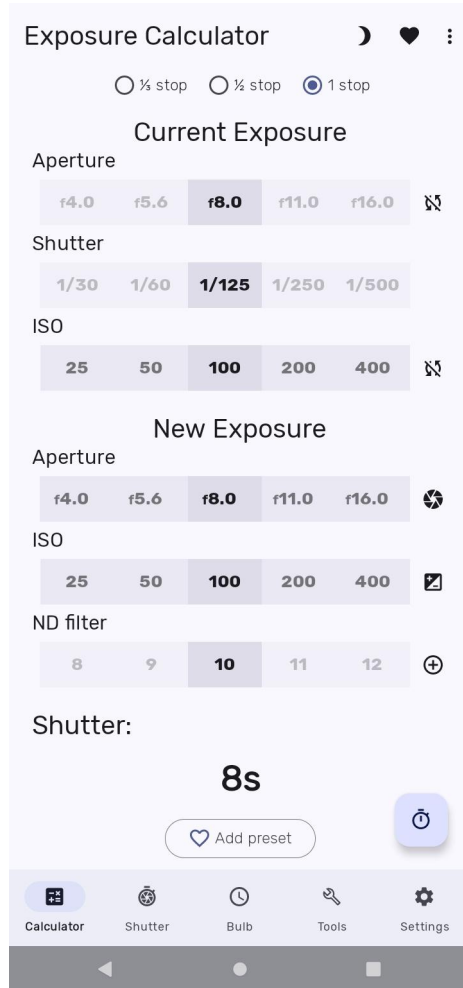
Place filter on lens, adjust shutter speed accordingly

Use timer or remote shutter (or app)

*shutter speeds over 30 secs require use of bulb mode

ND filters

Exposure calculator app



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Long Exposure

Summary:

Longer shutter speed to gather light

Low light & night photography

Creative uses - smooths movement, creates light trails and light painting

During day, requires use of ND Filters to allow longer shutter speeds

remember...

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Dont be pervy and practice the wrong kind of exposure