

BASIC APPROACH TO SHUTTER SPEED, APERTURE & ISO

LEARN HOW TO ADJUST EXPOSURE

Shutter Speed, Aperture and ISO all work together and affect exposure.
****They all have artifacts.****

Shutter Speed – How LONG light hits the sensor (measured in fractions of a second)
Aperture – How MUCH light is allowed to pass through the lens to get to the sensor (measured in f-stops)
ISO – Measurement of how sensitive sensor is to light.



01 SHUTTER SPEED - SET TO 50 (1/50)

How LONG light hits the sensor (measured in fractions of a second); controlled by click wheel on top of Canon T3i

ARTIFACT - Motion Blur

****Slow Shutter Speed** - (longer than 30 (1/30) lower you go, the more blur - gives you a dreamy/wispy look

->If too long - almost nothing will be in focus and there will be too much blur

->10 (1/10) - might give you a look like the dream/remembering scenes in Jason Bourne movies

****Fast Shutter Speed** - (anything faster than 500 (1/500)) almost no blur - intense, uncomfortable feeling - jittery and intense vibe

->2000 (1/2000) - Jittery and sharp like the beach scene in Saving Private Ryan

HOW TO SET SHUTTER SPEED - Set to 50 (1/50)

The Rule: Frame Rate x 2 = shutter speed which will give you a natural cinematic motion blur

We are shooting at 24 frames per second (24 x 2 = 48) so, the shutter speed should stay at 50 unless you want a dreamy or jittery look or to experiment.

02 APERTURE

How MUCH light is allowed to pass through the lens to get to the sensor (measured in f-stops)

Aperture controls the blades in the lens that close down or open up.

This is controlled by:

->FOR ZOOM LENSES - holding down AV button and using the click wheel on the top of the Canon T3i. The f-stop number appears on screen.

->FOR PRIME LENSES - manually turning the iris diaphragm control on the lens. The f-stop number is read directly off of the lens.



ARTIFACT - Depth of Field

****SHALLOW DEPTH OF FIELD**

- > Lens wide open (more light coming in)
- > Lower number (ex. f1.6)

****DEEP FOCUS**

- > Lens closed down (less light coming in)
- > Higher number (ex. f16)
- > Might need to add light to scene



HOW TO READ F-STOP NUMBERS (A classic pro will not read the dot.)
ex. f1.6 is read "eff one six" and f16 is read "eff sixteen"

03 ISO - Try to keep as low as possible

Measurement of how sensitive sensor is to light.

Controlled by: Pressing ISO button once and then using the click wheel on top of the Canon T3i.

ARTIFACT - Noise and Grain

****Low ISO - (under 100)**

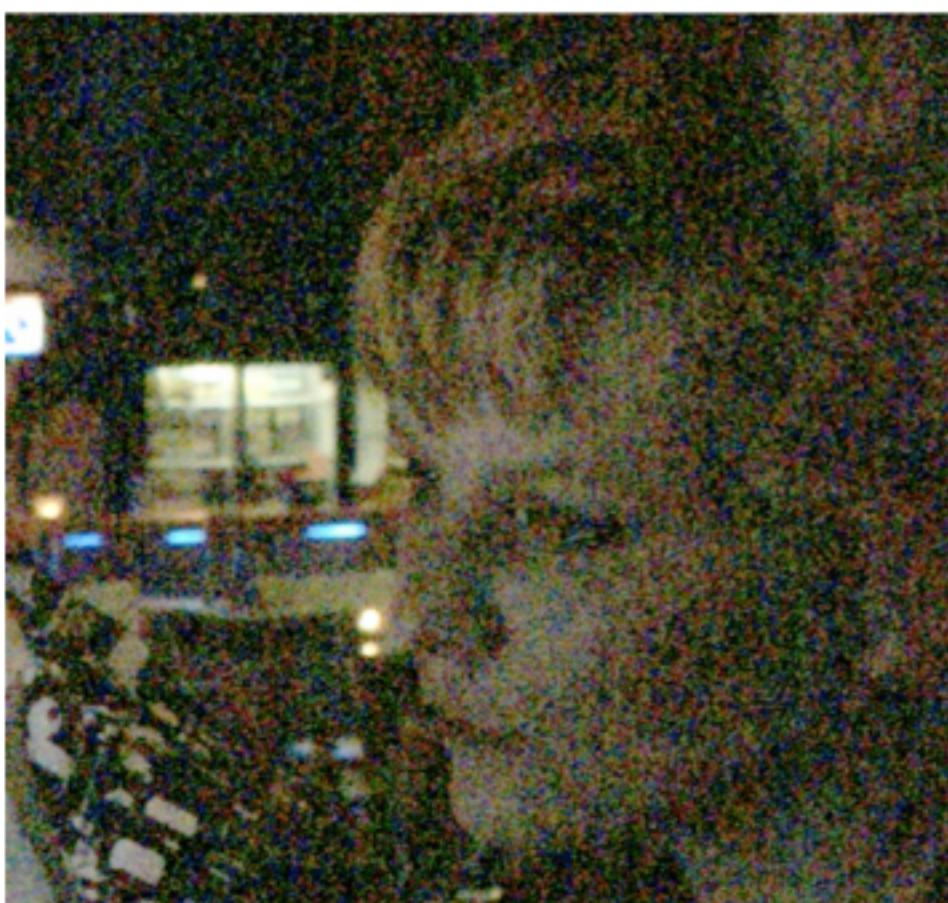
- >Good for exterior on a sunny day

****Medium ISO - (around 200)**

- >Good for exterior on an overcast day

****High ISO - (400 and above)**

- > Good for interiors, depending on light in room.
- > The higher the ISO the more noise and the grainier the image



The higher the ISO the more possibility you will have a noise and a grainier image.
IN GENERAL FOR A CLEAR IMAGE - KEEP ISO AS LOW AS POSSIBLE - YOU MAY NEED TO ADJUST APERTURE OR ADD LIGHT IF THE IMAGE IS TOO NOISY.

****Once you choose an ISO, keep it consistent per location.**