

SONY

Canon

PENTAX

FUJIFILM



Panasonic

OLYMPUS®

What should I buy?

Which camera should I buy?

Which camera should I buy?

It depends.

1. What do you want to do with it?
2. How much do you want to spend?

Things to consider:

What's the primary use?

General photography

Landscape

Wildlife

Portrait

Astro

Commercial

Things to consider:

Resolution

24mp is fine for most applications.

Greater resolution gives you more detail and allows you to crop more and retain sharpness.

More resolution is better if you make large prints (16x20 and up).

Higher resolution can be helpful in landscape, nature, architectural and commercial work.

Which sensor size?

Full Frame

APS-C

Micro 4/3

Full Frame Sensor - 36mm x 24mm

The image consists of a dark red background. In the center, there is a blue rectangle. Below the blue rectangle, there is white text. At the bottom of the red area, there is more white text.

APS-C (Crop) Sensor - 24mm x 16mm

Full Frame Sensor - 36mm x 24mm



Micro 4/3 - 17mm x 13mm

APS-C (Crop) Sensor - 24mm x 16mm

Full Frame Sensor - 36mm x 24mm

iPhone
4.6mm x 3.6mm

Micro 4/3 - 17mm x 13mm

APS-C (Crop) Sensor - 24mm x 16mm

Full Frame Sensor - 36mm x 24mm

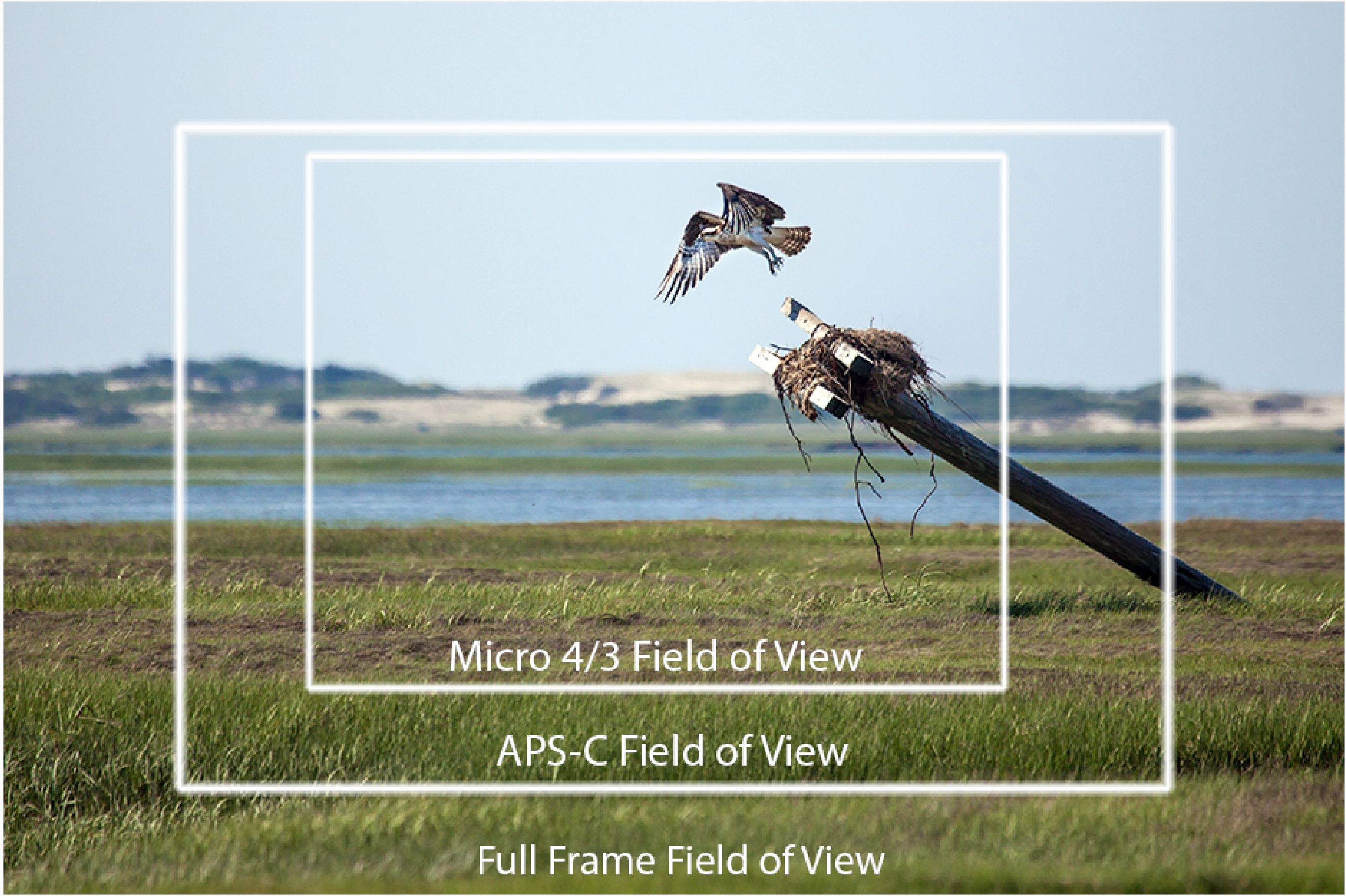


Full Frame Field of View



APS-C Field of View

Full Frame Field of View



Micro 4/3 Field of View

APS-C Field of View

Full Frame Field of View

What the camera would see and the file would show



Full Frame



APS-C



Micro 4/3

Full Frame

Largest sensor,
captures more light,
so less noise.
Wide field of view.
More expensive.

APS-C

Smaller field of view
creates “crop factor”.
More noise,
may have lower
image quality.*
Less expensive.

Micro 4/3

Smallest field of view,
greater “crop factor”.
More noise.
Image quality maybe
lower than APS-C.*

* Most cameras sold are APS-C.

Image quality differences may not be noticeable
to most people with out “pixel peeping”.

DSLR vs Mirrorless

Manufacturers

Canon

Sony

Nikon

Fuji

Olympus

Panasonic

Pentax



Lenses

Full frame and APS-C lenses

SIGMA

TAMRON

® Tokina
USA

ROKINON / **SAMYANG**



Prime vs Zoom

Prime Lenses

Fixed focal length

Pros

Smaller
Lighter
Sharper
Less distortion
Faster (lower f-stop)
Less Expensive

Cons

Less versatile
Requires lens changes

Zoom Lenses

Variable focal length

Pros

Versatile
Fewer lens changes
Image stabilization

Cons

Bigger
Heavier
Slower (higher minimum f-stop)
Less sharp
Greater distortion



Wide Angle < 50mm < Telephoto

14mm
17mm
24mm
35mm

(Standard)

Primes and Zooms

100mm
200mm
400mm
600mm





Wide Angle & Telephoto



Lens Qualities

Sharpness

Resolution

Focus speed

Speed (lower f-stop means faster lens)

Vignetting

Chromatic aberration/Fringing

Distortion

Coma

Image Stabilization

Weight

Build quality:

Weather sealing, plastic vs. metal alloy



Chromatic Aberration
- Color fringing



Bokeh

Quality of out-of-focus areas

All blurs are not created equal

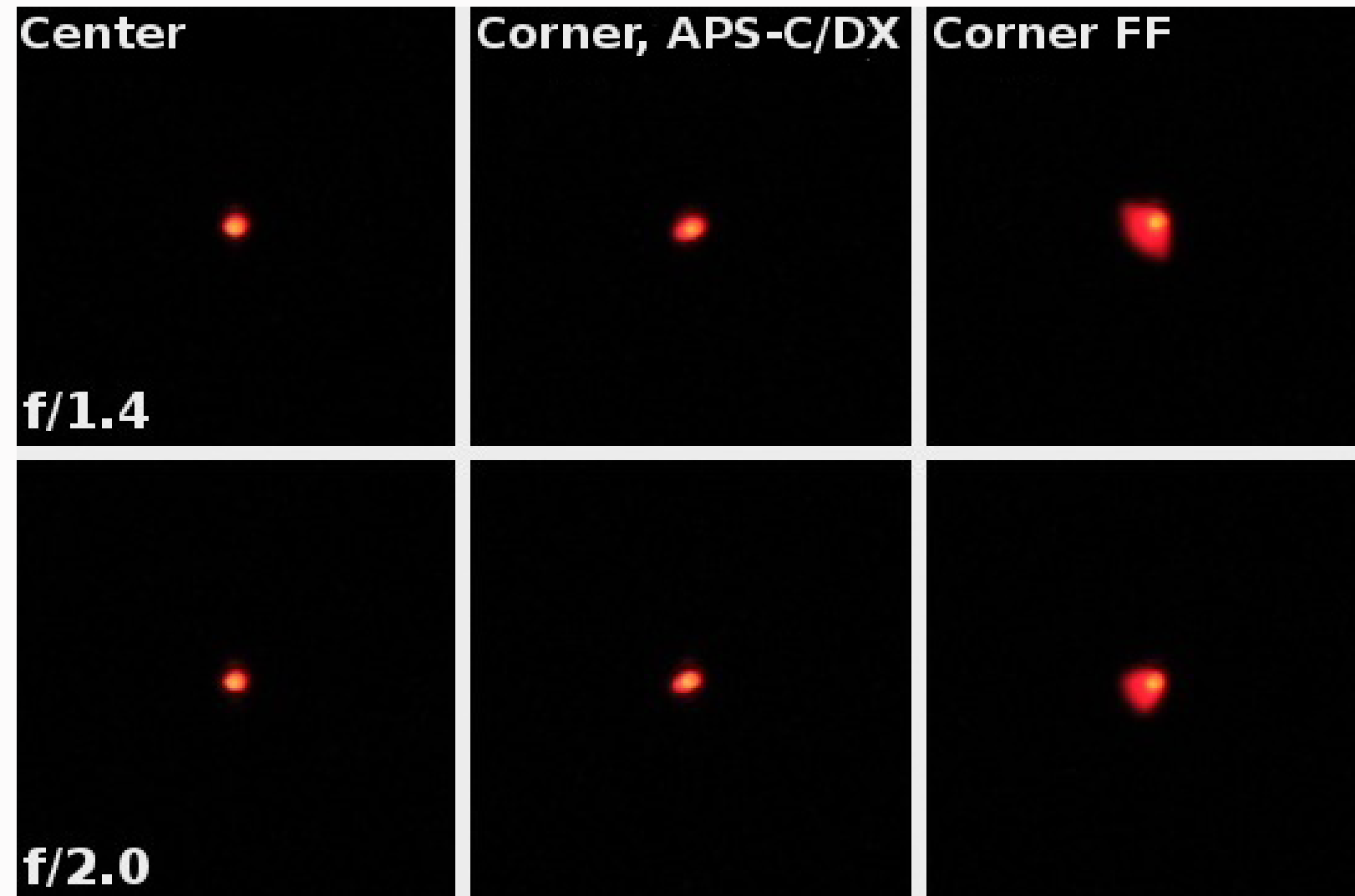
Points of light appear as circles

Ideal is smooth gradient,
no hard edges





Bad Bokeh



Coma



Barrel distortion



Pincushion Distortion

www.shariblog.com

Choosing the best lens is often a compromise...

Quality

Price

Size & Weight

Application

Frequency of use



Landscape Kit

Filters

Polarizer

Neutral Density

UV

Lenses

Wide 24-70mm f4 or better

Ultra wide 14-24, 16-35, 17-40, 15-30

Telephoto 70-200, 100-400, 150-600

Nature & Wildlife Kit

Lenses

100-400

150-600

Tele-extender

Filters

Polarizer

UV





Night

F4 or better, 16-24mm focal length

Nikon 14-24mm f2.8

Rokinon/Samyang 14mm f2.8*
Rokinon/Samyang SP 14mm f2.4*
Rokinon/Samyang 24mm f1.4*

Sigma 14mm f1.8

Tamron 15-30mm f2.8

* Manual focus



Portrait Lenses

70-200mm range

24-70

24-105

70-200

Where to Buy

Authorized Dealers

Hunts Photo (Hanover, Boston, Melrose) huntsphotoandvideo.com

Orleans Camera (Orleans) orleanscamera.com

Amazon.com

B&H Photo (NYC) bhphotovideo.com

Adorama (NYC) adorama.com

Refurbished

Nikon

nikonusa.com/en/nikon-store/refurbished-cameras.page

Canon

shop.usa.canon.com/shop/en/catalog/lenses-flashes/refurbished-lenses

Used

keh.com

mpb.com

huntsphotoandvideo.com

lensrentals.com

What I have:

Tamron 17-28 f2.8

Sony 24-105 f4

Sony 70-350 f4.5

Sony 200-600 f5.6

Rokinon SP 14mm f2.5 (manual focus)

Canon 500D close-up filter

Assorted polarizers and neutral density filters

What I use most often:

24-105mm

What I carry around:

17-28mm

24-105mm

70-350mm

Accessories



Lens wipes



Tripod



Microfiber clothes



Circular polarizer

Neutral density filter



1.4x tele-extender



Remote shutter release



Cheap poncho/trash bag



Camera raincoat



Flashlight

Review Sites

dpreview.com

[petapixel](http://petapixel.com)

fredmiranda.com

Google.com

“The single most important component of a camera is the twelve inches behind it!”
- Ansel Adams



The best camera/lens
is the one you have with you.