Cameras for Filming Audio Shows

Review by David Das

Contents

Overview

During the past year I have reviewed over a dozen of Club Events at the request of Club President John Harvell. I gained a lot of insight on the best combination of cameras and lenses to use for reliably capturing sharp high-resolution images. I wanted to share my experience and recommendations with all our Club Members who may have an interest in photography.

Smartphone Camera

Everyone carries a Smartphone. The photos and videos you get from recent models often rival expensive camera gear. The results are almost at par under bright lighting conditions.

The iPhone 17 Pro produces astonishing AI enhanced images.

Here is a comparison video between the iPhone 17 Pro and the Sony A6700 APS-C camera.

https://www.youtube.com/watch?v=xZm2CBk025o

For a casual photographer it is hard to justify spending anything more on a dedicated camera when the device you carry with you at all times produces such satisfactory results.

Here are the results under low light conditions.

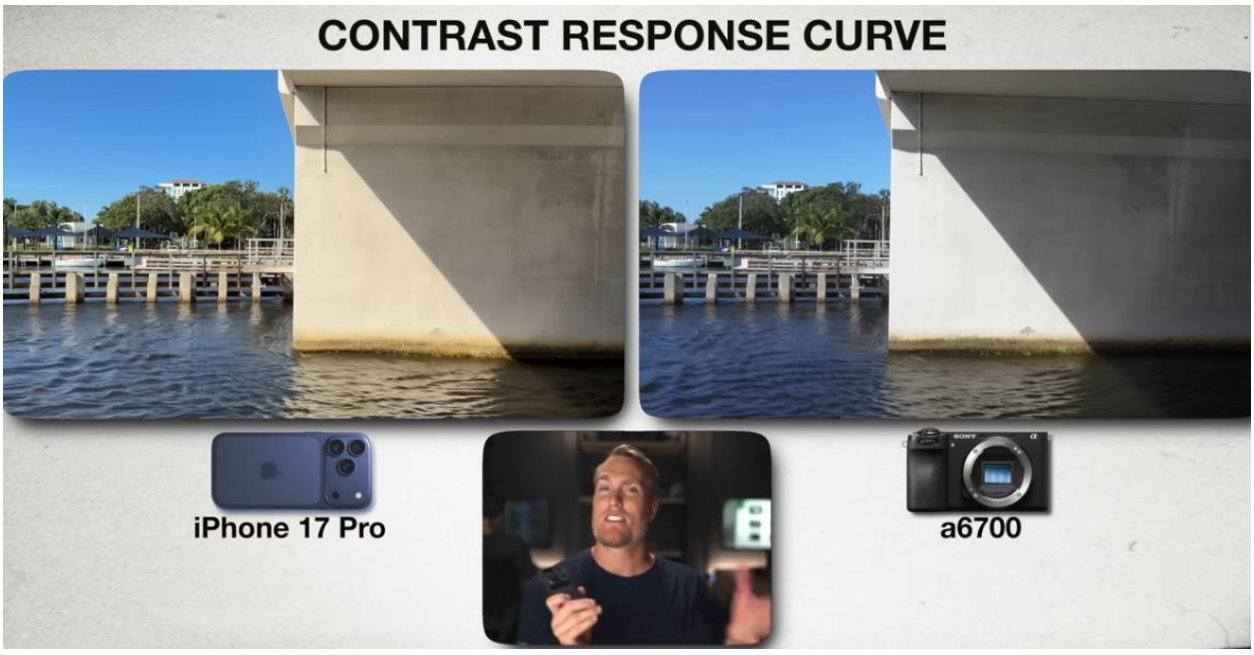
Here is a comparison under backlit conditions.

Landscape shot comparison

Sun Color comparison

Sky Color comparison

Contrast Response Curve



What makes the iPhone 17 Pro shots look so appealing is the heavy image processing that happens in the software utilizing the power of the Apple A19 Pro Chip. No camera can match that power.

With this level of performance few see a need to lug around traditional camera gear.

Accessories

As Smartphones have all but replaced the compact pocket camera, they have created a growing market for 3rd party accessories that help maximize the potential of these miracle gadgets.

Watch this video by **Sara Dietschy** as she explains her fully decked out iPhone 17 Pro Video Rig.

https://www.youtube.com/watch?v=9miKct3D4AA

She has links to all the parts in the description.

If you wish to exploit the capabilities of your Smartphone to the hilt, this is all you need to get professional results in a compact light weight package.

DJI Osmo Pocket 3 Camera

The DJI Osmo Pocket 3 Camera has generated a cult like following amongst vloggers since its release in October 2023. The killer feature of this tiny gadget is the integrated 3-axis gimbal that renders smooth motion 4k/120fps video from its 1 inch CMOS sensor. It weighs only 179g and is smaller than your Smartphone.

To see the DJI Osmo Pocket 3 in action watch Hannah Ricketts document her stay at a fancy hotel in London. She captured everything with this tiny camera. The audio was recorded on a DJI MIC-2. The results are impressive.

https://www.youtube.com/watch?v=TNgbK869Hgw

Accessories

I would recommend purchasing the Creator Combo that includes a Battery Handle, Wide Angle Lens, DJI MIC-2 Transmitter and Windscreen, Mini Tripod, Wrist Strap and Carrying Bag.

I got the Creator Combo package for $799 from B&H.

You can learn about the Creator Combo kit from this YouTube video.

https://www.youtube.com/watch?v=yYmPEVcy-UI

Here is a side by side comparison with an iPhone 17 Pro.

https://www.youtube.com/watch?v=Re79mCSoxkE

Here are some excellent tips on setting up your DJI Osmo Pocket 3.

https://www.youtube.com/watch?v=47-cCQ1qY04

Here is how the Pocket 3 can be used as a Studio Camera.

https://www.youtube.com/watch?v=hokxOiR3S3g

In addition to the Creator Combo kit, I found the following accessories to be useful.

1.

STARTRC Gimbal Protective Cover for DJI Osmo Pocket 3 Creator Combo, Anti-Fall Storage Handheld Camera Lens Screen Protector for DJI Pocket 3

2.

Fast Charging Maectech Battery Handle for Osmo Pocket 3

3.

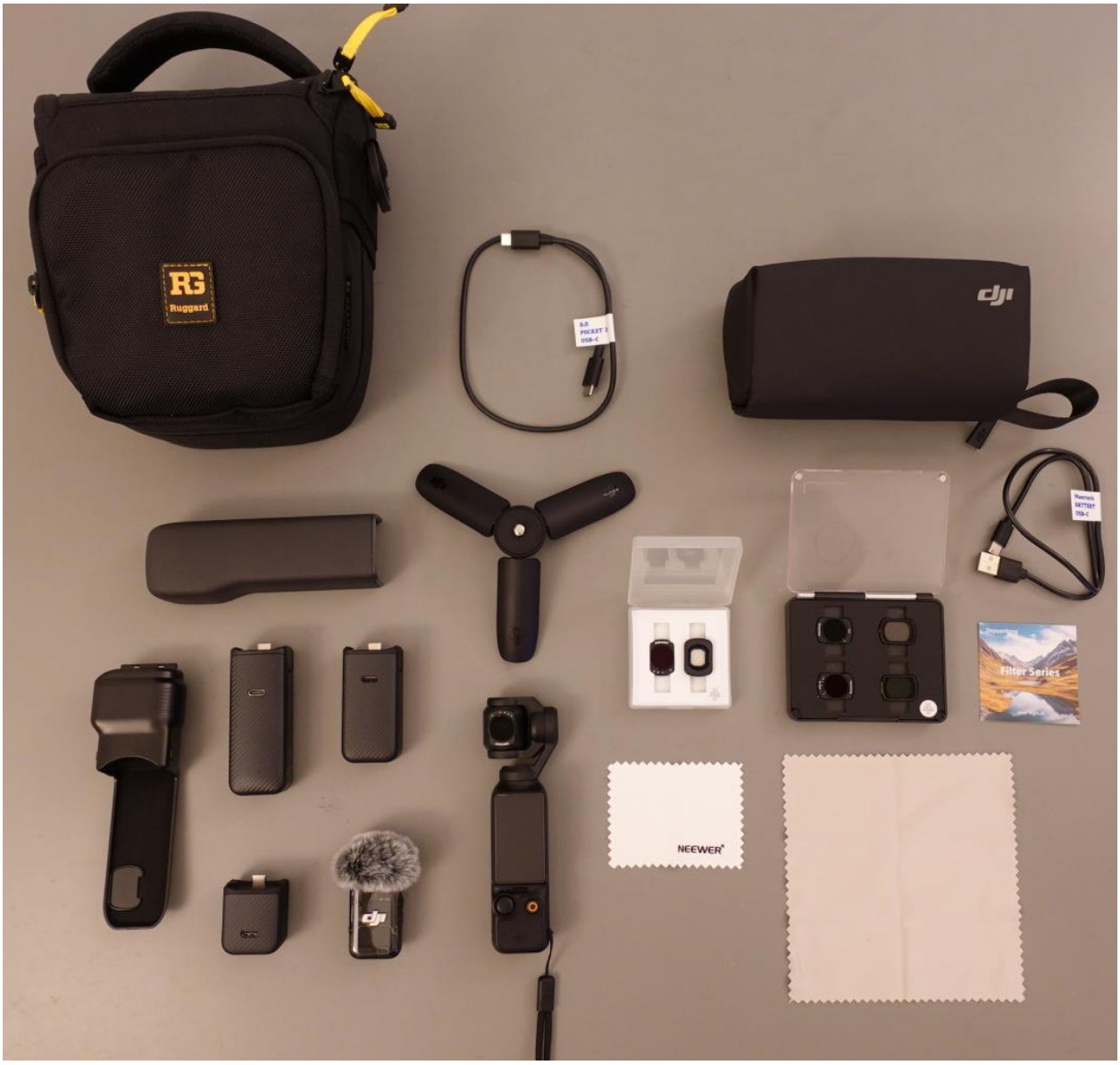
NEEWER Variable ND2-ND32 & ND64-ND512 Kit Compatible with DJI Osmo Pocket 3 Creator Combo Accessories, Limited Stops Neutral Density Filters, 2 Screen Protectors.

4.

Magnetic Lens Filter Kit Compatible with DJI OSMO Pocket 3.

4 Pack CPL, UV, VND3-7, Diffusion ¼ & CPL Filters, Ultra Slim Frame & HD Optical Glass.

Everything fits nicely inside a small camera bag.



I am overjoyed with the simplicity of operation and quality of the audio and video footage you get from this miniature camera.

This is the gadget to buy if you ever wish to take the next step up from your Smartphone. It is affordable, portable and capable of professional results with no learning curve.

The DJI Osmo Pocket 4 model will be released in 2026. The pro version will carry dual Wide Angle and Telephoto lenses.

Sony DCS-RX100 M7 Pocket Camera

If you want to capture images that are sharper than the Osmo Pocket 3 while still retaining portability, the next step up the ladder is the Sony DCS-RX100 M7 Digital Camera.

It features a 20.1 MP 1 inch CMOS Sensor with a ZEISS 24-200mm f/2.8-4.5 zoom lens.

It has a quick 0.02 second auto focus with 357 phase detection and 425 contrast detection points.

When ordering from B&H always check the Accessory Kit. Often the kit is priced the same as the Camera Only option.

I have the Sony RX100 M1, RX100 M3 and RX100 M5A models.

They have served me well for 12 years. I carry one with me at all times. I have used them to document my trips to CES, CEDIA, NAMM, NAB and the Rocky Mountain Audio Fest.

When Sony released the original RX100 model in 2012, it was way ahead of the capabilities of any Smartphone camera. The image quality was spectacular. This was a game changer.

After 12 years, the Smartphones have made giant strides in image quality. However, they still cannot match the 200mm zoom reach of the RX100 M7. This small wonder is in a league of its own.

There is one drawback.

They do not perform well under low light. The image becomes grainy and the focusing becomes unreliable. I quickly found this limitation when I initially began taking indoor photos under sub optimal lighting conditions for my Reviews for the AAVC Newsletter.

I knew I had to up my game.

This triggered my research and journey into the landscape of professional camera gear.

I needed to have a larger sensor to capture more light. I had the option of buying a Micro Four Thirds Camera or going even larger to an APS-C Camera or even a Full Frame Camera.

For a given sensor size, I had the option of having different pixel counts – 12MP, 26MP, 33MP and 61MP.

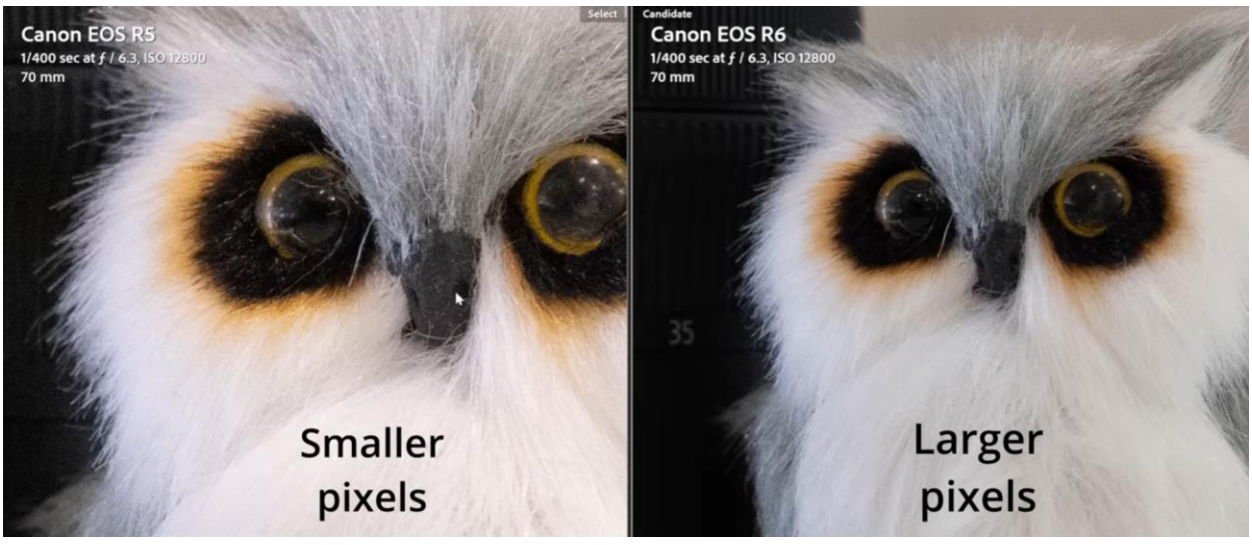
This YouTube video by **Simon d'Entremont** clearly explains how Pixel Size affects Image Quality.

https://www.youtube.com/watch?v=4U-EYsFQPqE

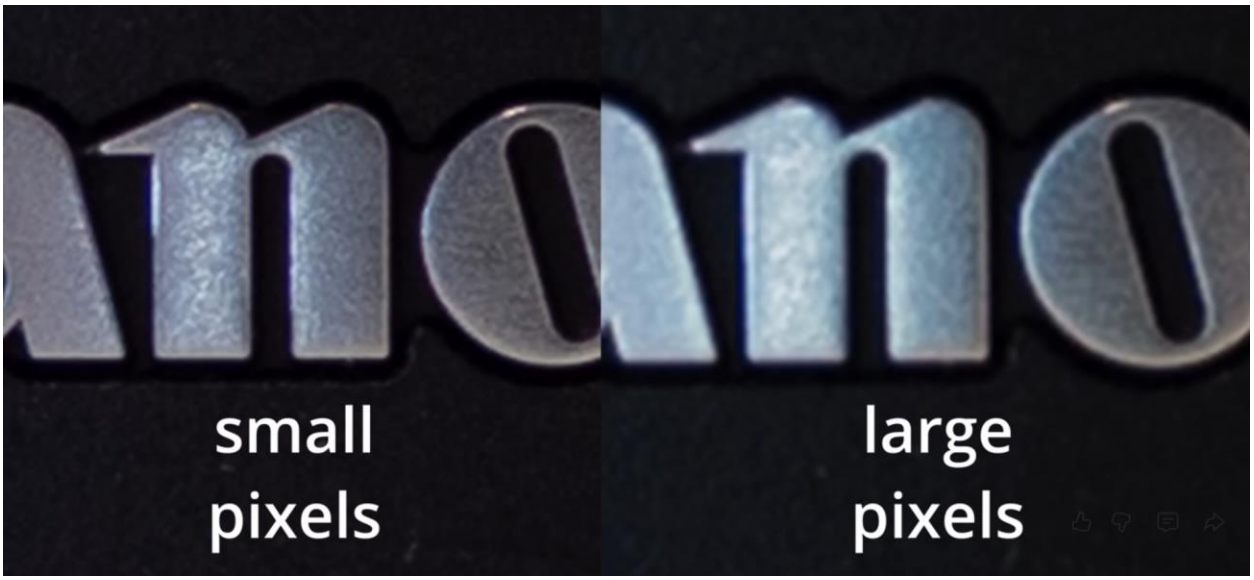
Busting the MYTHS about LARGER PIXELS. The TRUTH revealed!

Simon d'Entremont
738K subscribers
Subscribe
11K 141 Share

He compares the Canon R5 to the Canon R6. Both feature full frame sensors.
However, the Canon R5 with 45MP has smaller pixels than the Canon R6 with 20MP covering the same sensor size of 36mm x 24mm.



Here are some more comparisons between the Canon R5 and Canon R6.



Clearly, smaller pixels gives you better resolution.

What about Sensor Size?

Simon d'Entremont has another YouTube video explaining the differences.

https://www.youtube.com/watch?v=Bfh6TRiHWzo

IS FULL FRAME BETTER THAN CROP SENSOR? The truth people often don't believe

Simon d'Entremont
738K subscribers
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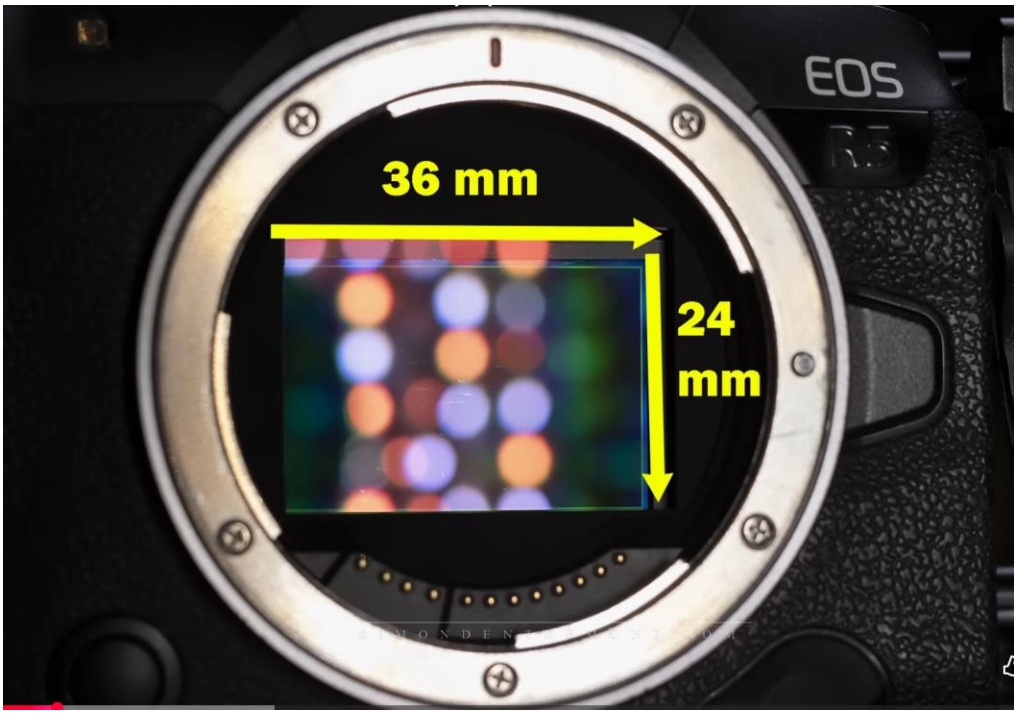
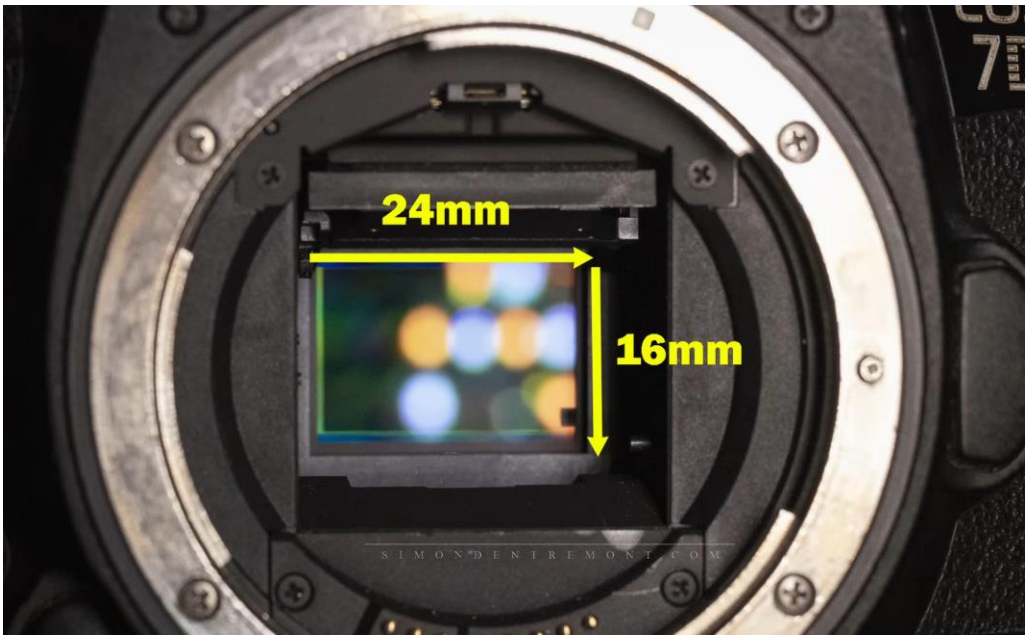
A Full Frame Sensor measures 36mm x 24mm.

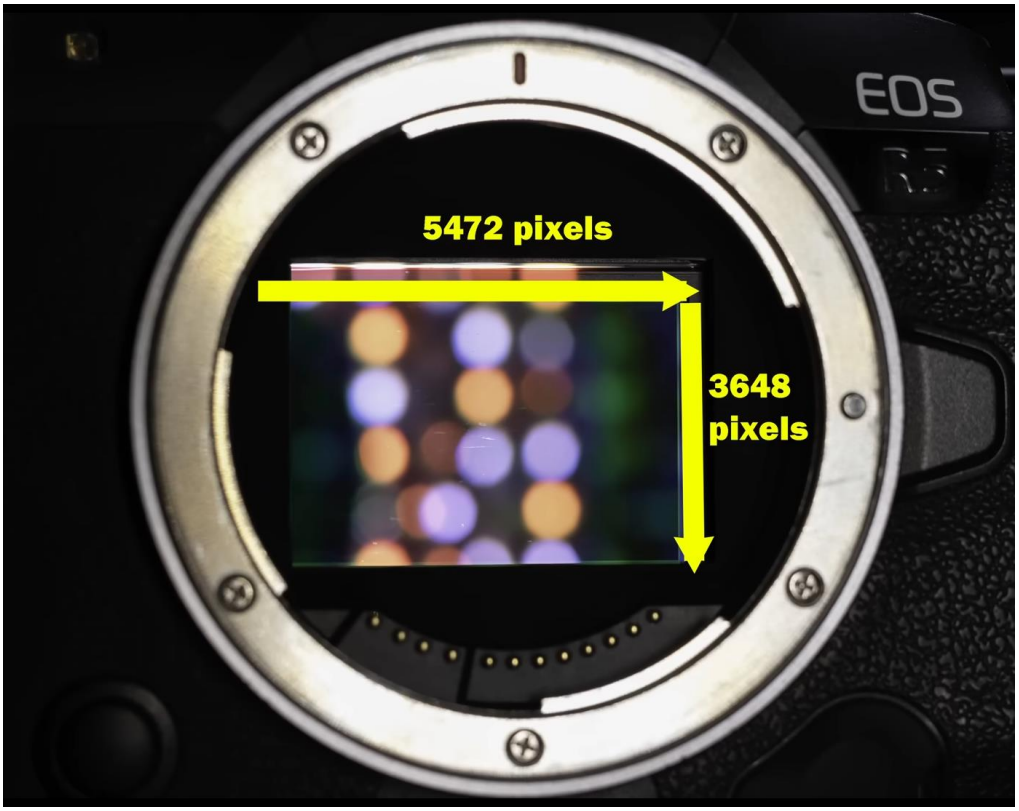


An APS-C sensor is a lot smaller. It measures 24mm x 16mm.

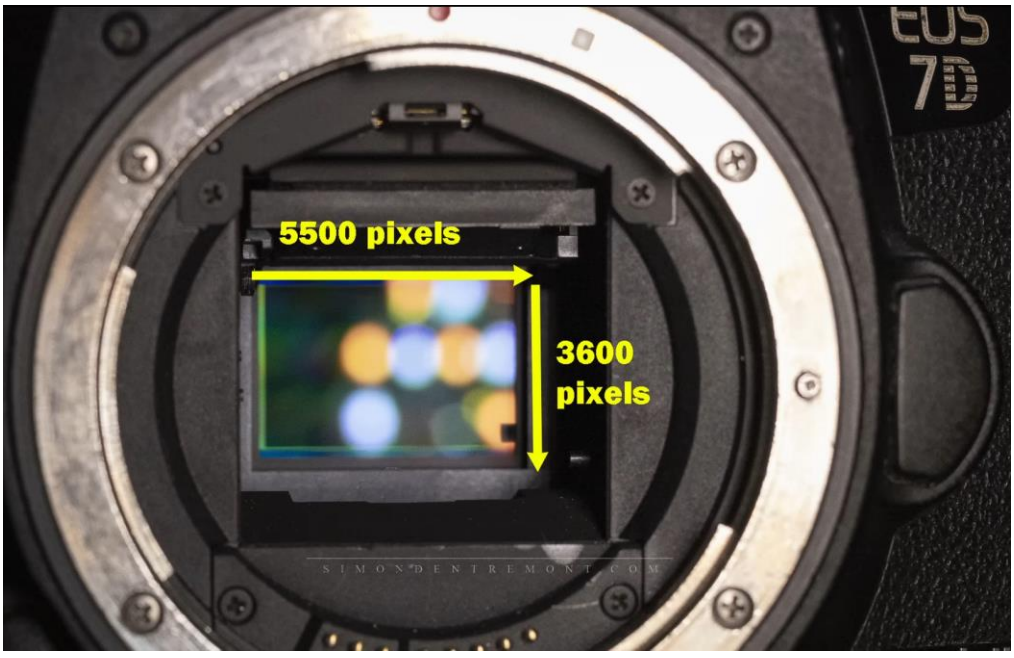


The Canon R6 has approximately 20 million pixels on a Full Frame Sensor.

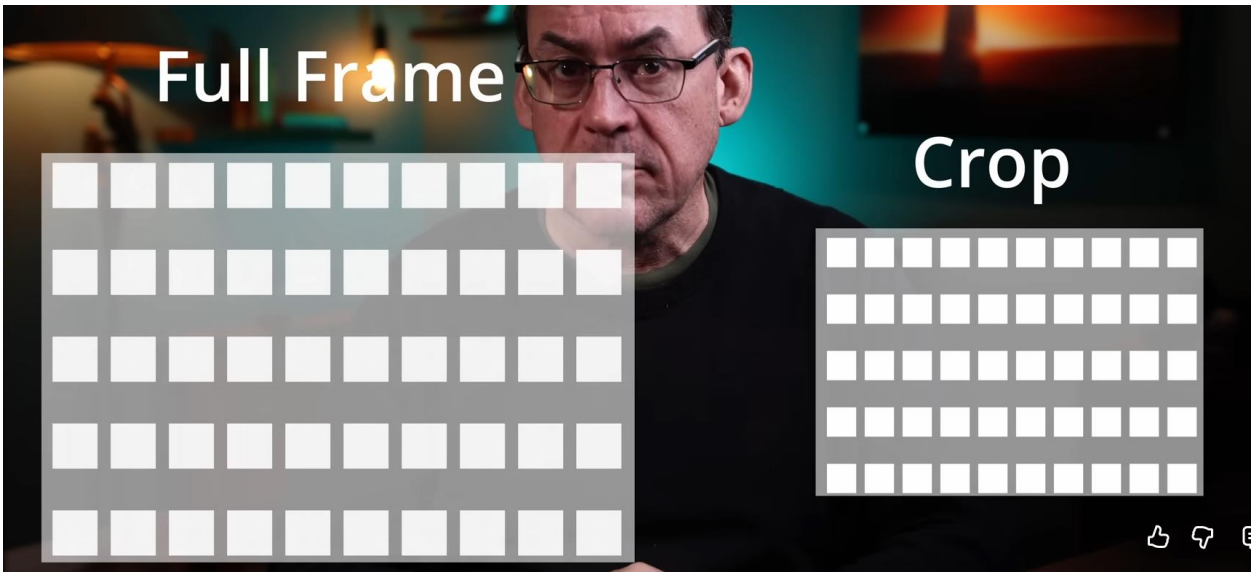
5472 x 3648 = 19,961,856 pixels = 20MP approximately.



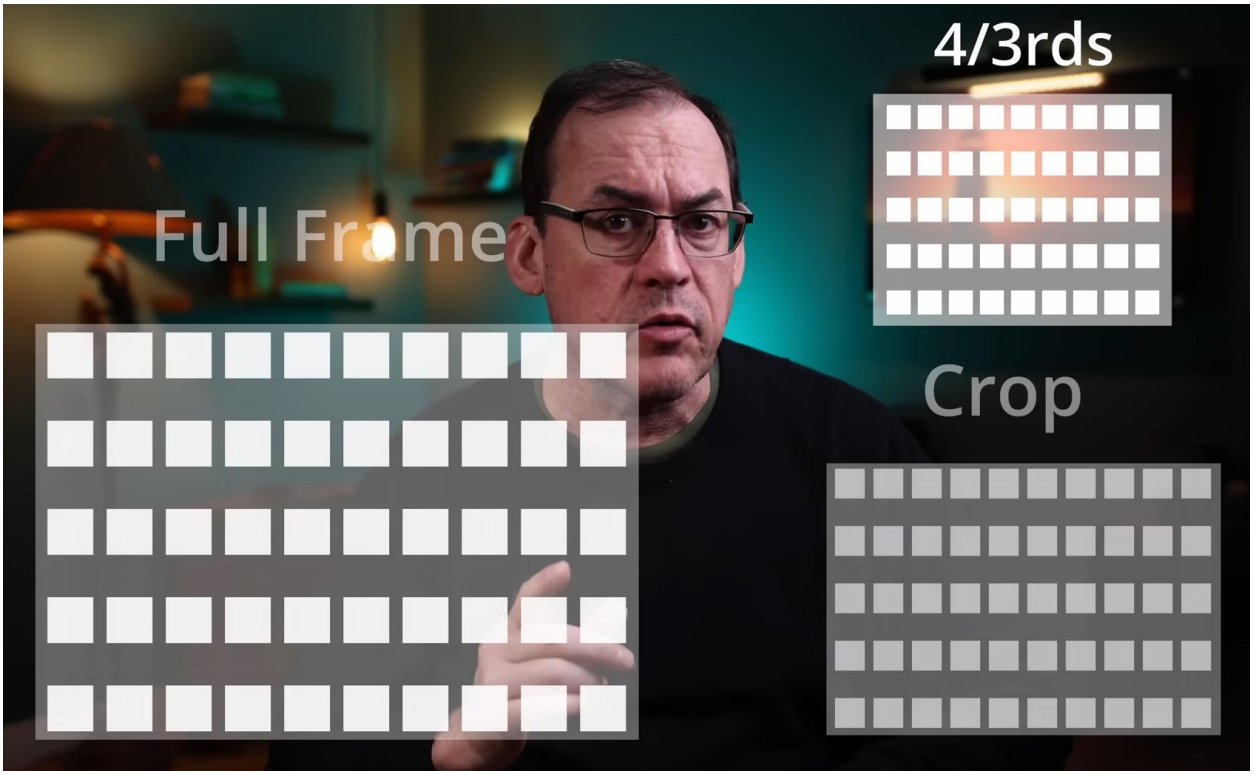
The Canon EOS 7D Mark II has a smaller APS-C senor but with the same number of pixels.



The pixels are more densely packed in the Canon 7D with a smaller APS-C sensor.



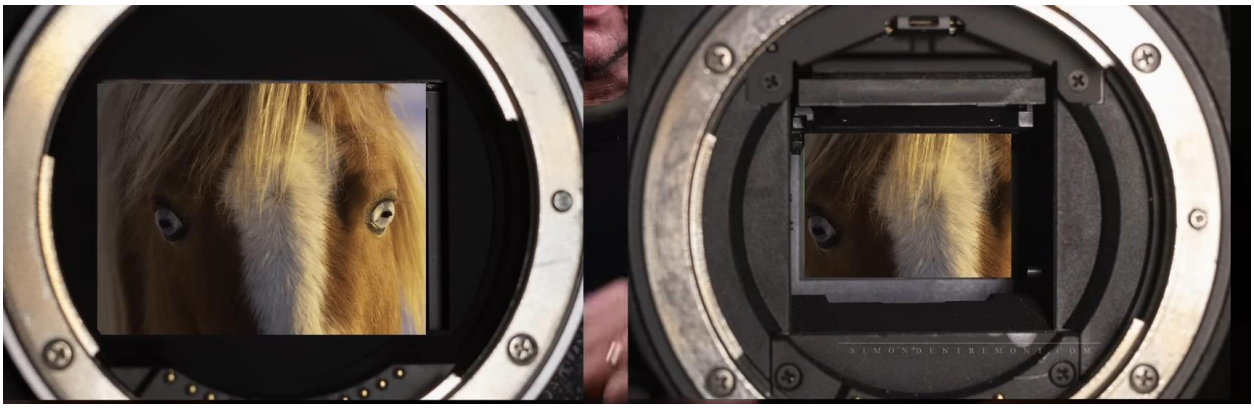
Micro Four Third sensors are even smaller measuring 17mm x 13mm.



Ratio of APS-C to Full Frame Sensor = Cross sensor Ratio = 1.5

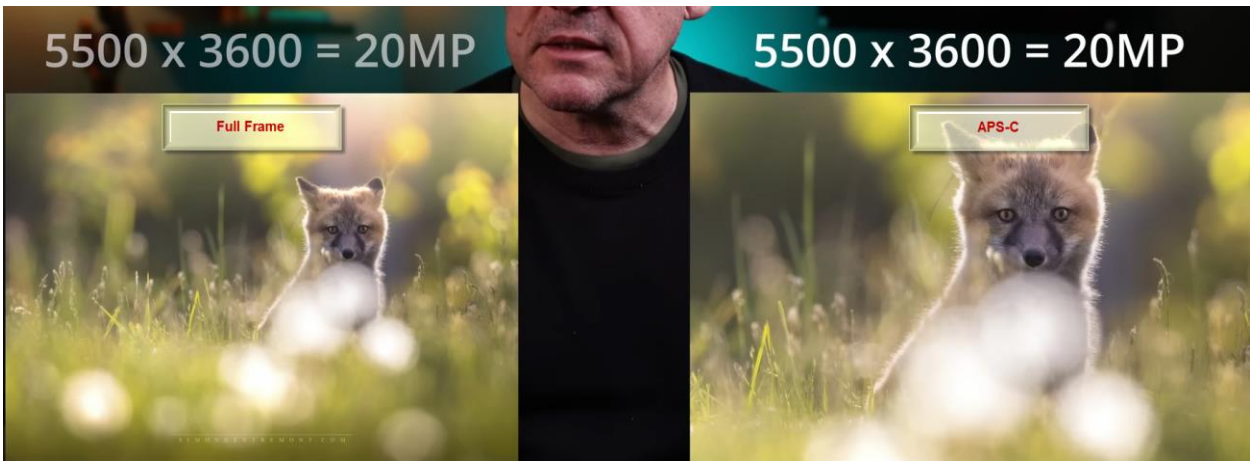
This factor is used to find the equivalent magnification difference between a Full Frame and an APS-C sensor.

The crop sensor will capture a smaller field of view when using the same lens.



A crop sensor makes a 50mm lens behave as a 50 x 1.5 = 75mm lens.

A micro 4/3 would double the 50mm lens to 50 x 2 = 100mm focal length



Lenses for APS-C cameras are smaller and cheaper to make.

You can use any Full Frame Lens on an APS-C Camera.

However you cannot use an APS-C Lens on a Full Frame Camera. It produces vignetting.

Full Frame Cameras have less noise.

Crop Sensors have more noise.

Full Frame cameras perform better under low light conditions.

Crop Sensor cameras are cheaper. The lenses are cheaper too.

Depth of Field is shallower on a Full Frame Camera.

Backgrounds are less blurry on Crop Sensors.

After carefully factoring in the pros and cons of Full Frame vs. APS-C sensors and the available lenses and the resulting weight, size and costs, I decided to settle for a Full Frame Camera to get the professional quality images I was after.

I had the option of picking a Canon, Nikon or a Sony Full Frame Camera.

I decided to invest in the Sony eco-system because of their large collection of lenses, third party lenses for the Sony E-Mount and community support.

Here is a graphic of the Sony E-Mount family of Lenses.

Sony A7CII Compact Full Frame Camera

Under the Sony A7 Full Frame Mirrorless Camera family you have 4 good choices:

Sony A7V 33MP with 759-Point Phase Detect Real-Time Tracking

Sony A7rV 61MP with AI-Based Real-Time Tracking Auto Focus

Sony A7C II 33MP with 759-Point Phase Detect Real-Time Tracking

Sony A7CR 61MP with 693-Point Phase Detection

I selected the Sony A7C II because it is basically the Sony A7V in a compact body. The "C" moniker stands for compact.

It has the same form factor as the Sony A6700 APS-C Camera and weighs 514g with the Battery.

Here are all the specifications of the Sony A7C II.

This camera has an advanced 7-stop In-Body-Image Stabilization that helps you capture steady shots without blurriness.

I did not need the extra 61MP resolution of the A7CR. Besides, the A7C II outperforms the A7CR under low light conditions. The A7C II turned out to be the perfect choice for my needs.

B&H shipped me the kit with extra lenses well packed with 2-day FedEx home delivery.


SONY
7C
E-mount
SONY


OFF
ON
α7C II
AUTO
MENU
C1

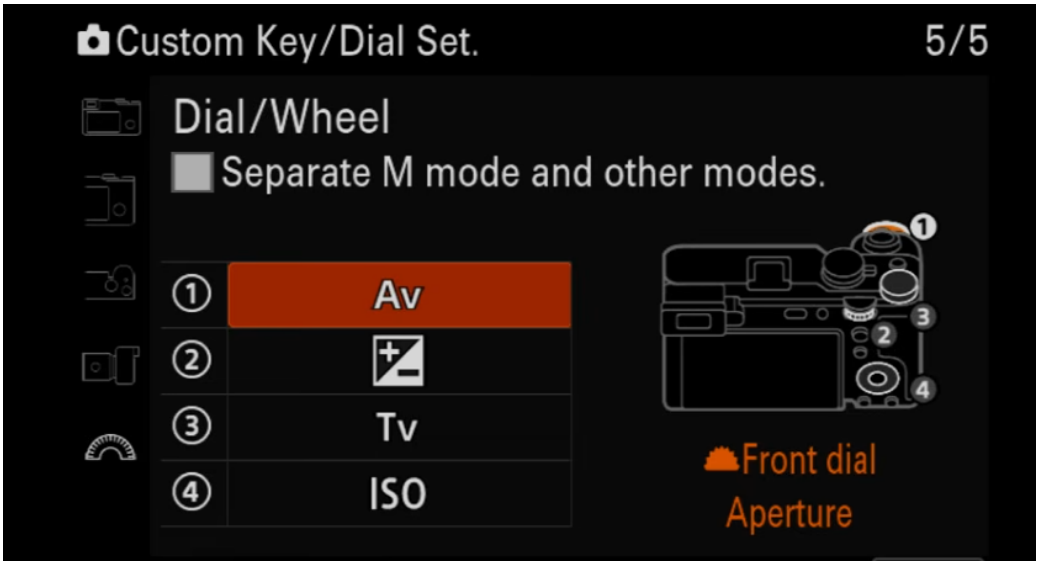

RG
Ruggard
WATSON
WATSON NP-FZ100
16-35mm
65mm
A7C II
SONY
α7C II

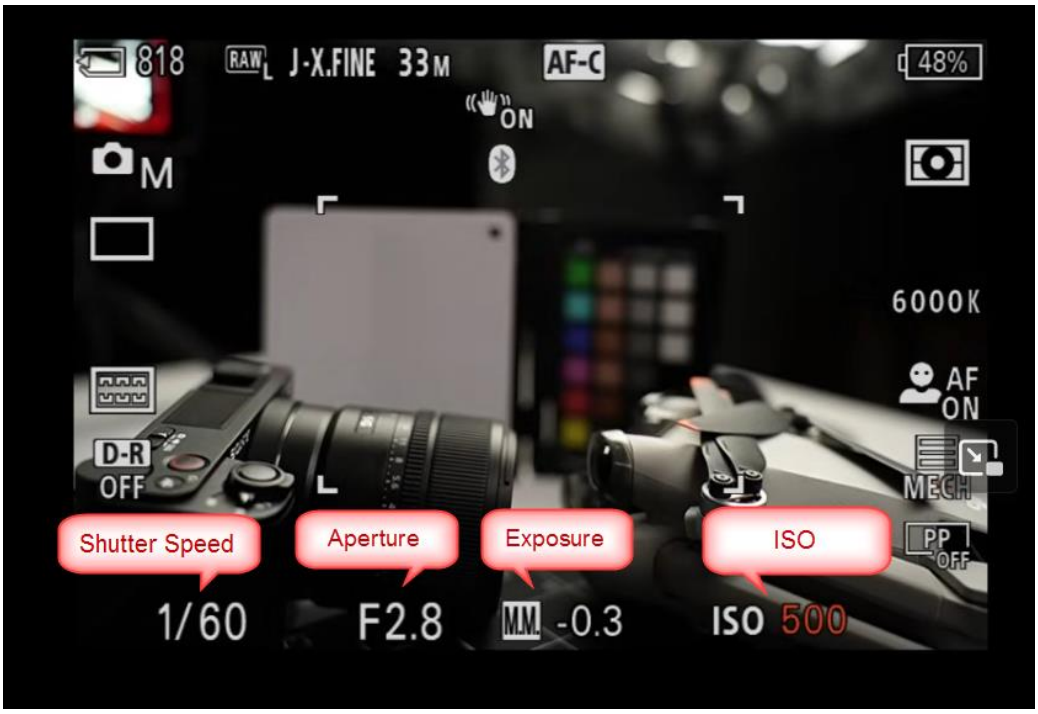
There are hundreds of YouTube Tutorials that walk you through all the features and menu system of the Sony A7C II.

This tutorial by **Sean De Wispelaere** stood out. It explains the essential settings you need to make and how to control the Exposure and White Balance to take perfect photos every time.

https://www.youtube.com/watch?v=7TKT_Nqky_k

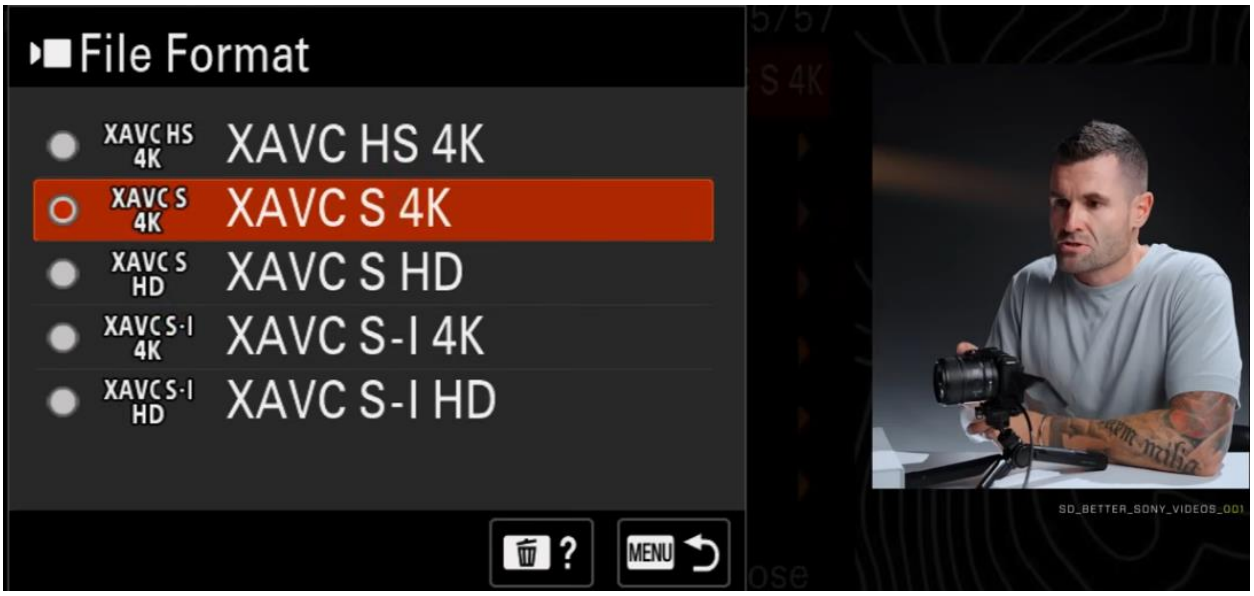
He uses these Custom Dial Settings:





Sean has another Tutorial that shows you how to make your Sony Videos look better.

https://www.youtube.com/watch?v=eZqlIwoz2Fc



This 3rd video from Sean explains how to make your pictures pop using SLOG3.

https://www.youtube.com/watch?v=Tu_wATоojzY

Sony FE 20mm f/1.8 G Lens

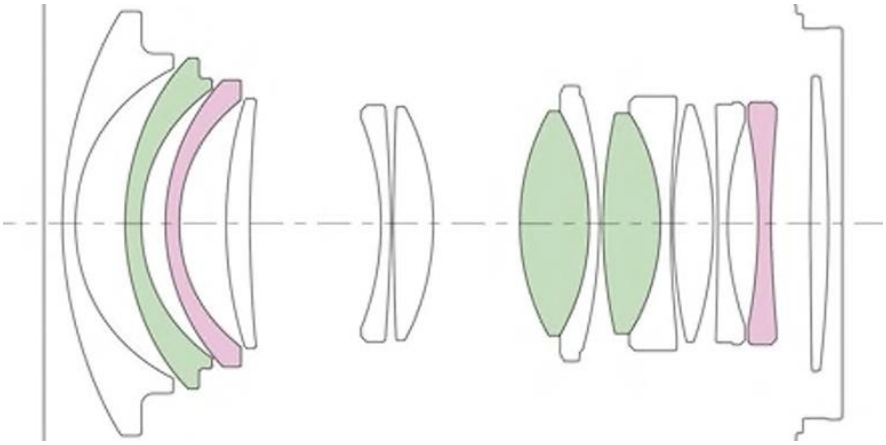
The quality and sharpness of your lens is more important than your camera. Do not waste your money buying the kit lens from Sony. There are dozens of Prime and Zoom lenses from Sony as well as from third party manufacturers like Samyang, Sigma, Tamron, Viltrox, Yongnuo and Zeiss that make full frame E-Mount Lenses.

You only need to have **4 essential lenses** in your collection to cover your everyday needs.

The very first lens you should buy for your Sony A7CII Full Frame Camera is the Sony FE 20mm f/1.8 G Lens.

Buy this from B&H with the filter kit option.

This lens has 14 Elements in 12 Groups with a 9 blade Aperture.



This lens is super sharp edge to edge matching the performance of a Sony G Master Lens at a far lower price point. The wide aperture of f/1.8 allows this lens to capture grain free images under low light conditions. It is small measuring 3.33 inches and weighs just 373g.

This is the ideal lens for capturing sharp images of the gear in the dimly lit rooms of Audio Shows. Every picture comes out razor sharp. The 20mm focal length gives it the wide angle view useful under tight spaces. This is the perfect lens to show off the capabilities of the Sony A7C II.

Here is a review of the Sony FE 20mm f/1.8 G lens by **Mark Galer**.

https://www.youtube.com/watch?v=fmMwdXJVKAA

Here is a review by **Chris Harvey**.

https://www.youtube.com/watch?v=ogPgoAo-Egw

Sony FE PZ 16-35mm f/4 G Lens

The 2nd essential lens you need for your Sony A7C II camera is the Sony FE PZ 16-35mm f/4 G Lens.

Order this from B&H with the Filter Kit.

The PZ stands for power zoom. This feature makes it ideal for shooting video where you can smoothly zoom in from 35mm to 16mm. The maximum aperture is f/4 which is large enough for shooting in daylight. For low light conditions you will be using the Sony FE 20mm f/1.8 lens.

This ultra wide angle lens is ideal for real estate, architectural and landscape photography.

This lens is compact. It is 3.5 inches long and weighs 353g.

Mounted on a Sony A7C II Camera this combination weighs just 867g making this the lightest Full Frame Ultra Wide Angle setup.

For daylight videos and brightly lit indoor environments, this is the only lens you need.

Here are some pictures I took at the LMC Scottsdale Showroom with this lens.

Here is a review on this lens from **The Hybrid Shooter**.

https://www.youtube.com/watch?v=KjG9hDKqZRM

Minimum focus distance = 9.4 inches.

Close up at 35mm

The Sony A7C II is a hybrid camera. It excels at video as well as photos. This hybrid lens is the perfect match for this camera.

Tamron 25-200mm f/2.8-5.6 Lens

The 3rd essential lens you need is the new Tamron 25-200mm f/2.8-5.6 Zoom Lens.

Tamron is celebrating its 75th anniversary with this second generation all-in-one Zoom Lens. It is wider and sharper than the first generation Tamron 28-200mm f/2.8-5.6 Zoom Lens that was released in 2020.

You can order this from B&H. There is no kit option. You would need to add this UV filter to protect the lens.

This Ultra-Zoom lens is relatively small measuring 4.8 inches and weighs 575g.

Tamron Lens with 67mm UV Filter.

The Tamron Lens measures 7.5 inches fully extended.

Here is a review by **Mads Peter Iversen**. He compares this with the older Tamron 28-200mm and the Sigma 20-200mm lenses.

https://www.youtube.com/watch?v=izsCJ1MePAE

Here is another review comparing the edge sharpness to the previous generation.

https://www.youtube.com/watch?v=Io8iixyV3xM

Here is a review showing how the Tamron 25-200mm performs under low light conditions.

https://www.youtube.com/watch?v=C_t0oF7rDnE

Here is a review by **Bobby Tonelli**.

https://www.youtube.com/watch?v=OwntizOUmTU

Here is a review of the first generation Tamron 28-200mm lens by **Julia Trotti**.

https://www.youtube.com/watch?v=FBUowvlY9OU

Julia shows the versatility of allowing the user to select different focal lengths.

67MM

1/200
F4
ISO 320

Sony FE 85mm f/1.8 Lens

The 4th essential lens you need to complete your collection is the Sony FE 85mm f/1.8 lens.

The 85mm focal length is ideal for shooting flattering portraits. The wide aperture of f/1.8 produces a shallow depth of field resulting in a creamy bokeh with excellent background separation from the subject.

You can order this from B&H. They do not have a kit option. You would need to order a UV filter to protect your lens.

This is a small lens. It is 3.23 inches long and weighs 371g.


FE 1.8/85


FE 1.8/85
0.8m/2.63ft
Ø67
85mm

Julia Trotti compares the Sony 85mm f/1.8 with the expensive Sony 85mm f/1.4 GM Lens.

https://www.youtube.com/watch?v=_WiigNNAnpw

Here is a review by **Christopher Frost**. This lens can be used for Landscape Photography.

https://www.youtube.com/watch?v=iU_0j6JsuP4

Here is a review by **Arran Brown**.

https://www.youtube.com/watch?v=6SnTPtVSPLU

Here is **Joris Hermans'** review.

https://www.youtube.com/watch?v=RtnlnwVEmUI

Total Cost

These are the main components of your Sony Full Frame Camera Kit.

Full Frame Mirrorless Camera	
Sony A7C II (Silver) with Basic Bundle	$2,498.00
Low Light Lens	
Sony FE 20mm f/1.8 G Lens with Filter Kit	$1,048.00
Wide Angle Video Lens	
Sony FE PZ 16-35mm f/4 G Lens with Filter Kit	1,348.00
Zoom Lens	
Tamron 25-200mm f/2.8-5.6 Di III VXG G2 Lens	899.00
Portrait Lens	
Sony FE 85mm f/1.8 Lens	698.00
UV Filters for Zoom Lens and Portrait Lens	
Chiaro Pro 67mm 98-UVATS UV Filters 2@$26.96	53.92
Grand Total	**$6,544.92**

Sony Full Frame Camera Kit

Accessories

Here are a few accessories that would greatly improve your user experience.

OP/TECH USA Mirrorless Strap with Quick Disconnect (Black)

This strap is so much more comfortable than the stock one that comes with the camera.

Sony NP-FZ100 Battery (2280mAh)

Watson Mini Duo Battery Charger

Rainsmore Camera Bag 10.2 inches long

This is large enough to fit the Sony A7CII Camera and 3 lenses.

SmallRig Screen Protector

MagicFiber Lens Cleaning Cloth

Sirui Compact Traveler 5C Carbon Fiber Tripod

[DJI RS 4, 3-axis Gimbal Stabilizer for Mirrorless Cameras]

Club Secretary **David Snyder** uses this Gimbal.

High Quality Stereo Recording Mic and adapter

I had the opportunity to meet with **Kazuya Ohtake**, the Editor of AVCAT Audio & Visual Catalog. He had travelled all the way from Japan to attend the dCS Varese Launch Event at LMC Scottsdale.

He documented the entire event using his Sony A7C II Camera and Sony FE PZ 16-35mm f/4 G Lens. I was curious to learn how his makes his stereo recordings on the clips he posts on his YouTube Channel.

Kazuya gave me a detailed run down of his recording gear that he attaches to his Sony A7C II.

Audio-Technica BP4025 Stereo Microphone.

To use this stereo microphone with the Sony A7C II Camera, you need this Audio Adapter:

Sony XLR-K3M Dual Channel XLR Audio Adapter Kit

The kit comes with a shotgun microphone. You will be replacing that with the Audio Technica BP4025 microphone which captures the frequency response from 20Hz to 17kHz.

This is a professional stereo recording setup. Here is an example of his recording.

https://www.youtube.com/watch?v=BXQLNJJTfxA

The walking tour was recorded on a DJI Osmo Pocket 3 Camera.

Sony A6700 APS-C Camera

You can save thousands of dollars if you choose to step down from a Full Frame Camera to an APS-C Camera with a 56% reduction in sensor size. Essentially, you are downsizing from a 36mm x 24mm sensor to a 24mm x 16mm sensor.

The Sony A6700 is the king of all APS-C cameras sporting a 26MP CMOS Sensor with a 5-stop In-Body-Image Stabilization.

B&H sells the basic bundle for $1,598.

Sigma 10-18mm f/2.8 DC DN Lens

The Sigma 10-18mm f/2.8 E-Mount lens is one of the two essential lenses you need to purchase.

B&H sells the Sony E-Mount version for $679.

This APS-C Lens gives you a Full Frame Equivalent Focal Length of 15-27mm.

You can see right away how much cheaper this is than the Full Frame Sony FE PZ 16-35mm f/4 lens. It is 2.5 inch long and weighs 255g.

The combined weight of the Sony A6700 Camera and this lens comes to 748g. This is 119g less than the Sony A7C II + Sony FE PZ 16-35mm lens combo.

Sigma 18-50mm f/2.8 DC DN Lens

The 2nd essential lens you need is the Sigma 18-50mm f/2.8 Lens

B&H sells this for $629

This APS-C Lens gives you a Full Frame Equivalent Focal Length of 27-75mm.
This is 2.9 inches long and weighs 290g.

These two lenses are all that you need to go with your Sony A6700 Camera.

Total Cost	
Sony A6700 APS-C Camera	$1,598
Sigma 10-18mm f/2.8 Lens	$679
Sigma 18-50mm f/2.8 Lens	$629
Grand Total	$2,906

This is $3,639 cheaper than the Full Frame Sony kit with the 4 lenses!

Cost is the main reason apart from the weight and bulk why the majority of amateur photographers select the Sony A6700 over a full frame camera.

However, here is something you should consider before jumping on the APS-C bandwagon. Their performance under low light conditions can never match up to a Full Frame Camera.

Second, if you ever decide to upgrade to a Full Frame camera, then all your investment in the APS-C format would be a waste. Full frame cameras cannot use APS-C lenses. The lens opening is too small leading to severe vignetting. The only way to eliminate this is to operate the full frame camera in Crop Mode. Effectively this cripples a full frame camera into using a smaller sensor area. That defeats the purpose of having a full frame camera in the first place.

I looked at the cost differential and decided to go with the Full Frame format. It was worth spending $3,639 more upfront to instantly achieve reliable professional quality results and have a setup that would serve me well for the next 5 years.

Most photographers who start on an APS-C camera eventually end up with a Full Frame camera down the line.

I feel I have saved myself $2,906 by skipping the APS-C format.

Comparison between Sony A6700 and Sony A7C II

The IceLandic Guy makes a good comparison between the Sony A7C II and the Sony A6700.

https://www.youtube.com/watch?v=e6zh4f1VizQ

He finds the low light performance to be better on the Sony A7C II Full Frame camera.

Here is another comparison video by **Mark Bennett**.

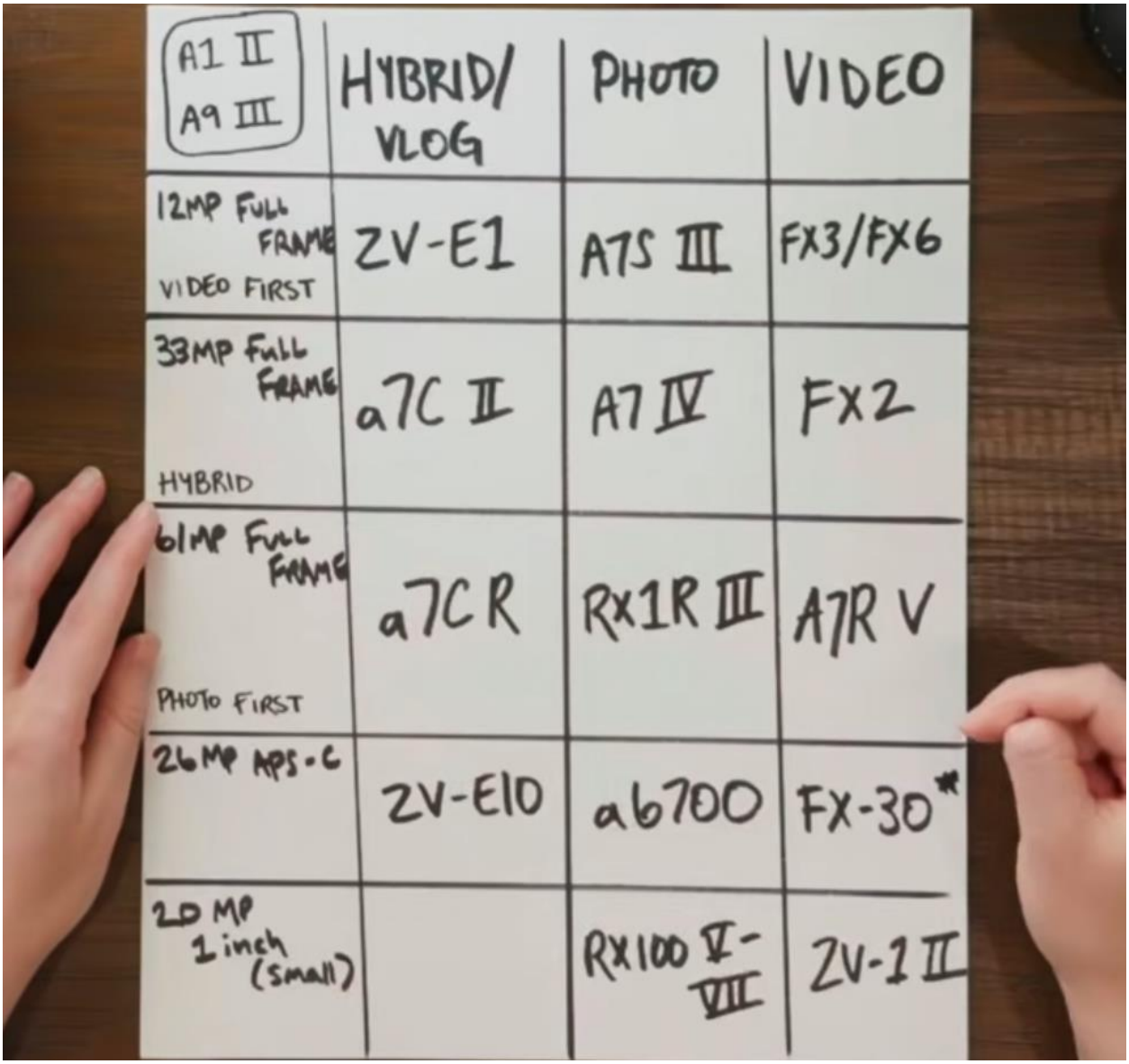
https://www.youtube.com/watch?v=9ONZEwDQj5U

The A7C II pulls ahead under low light conditions.

Choosing the right Sony Camera

If you are wondering about all the Sony Cameras and Sensor Sizes and what they are optimized for, **Sara Dietschy** has an easy to understand matrix for you:

https://www.youtube.com/watch?v=gO_gNOMXGDA



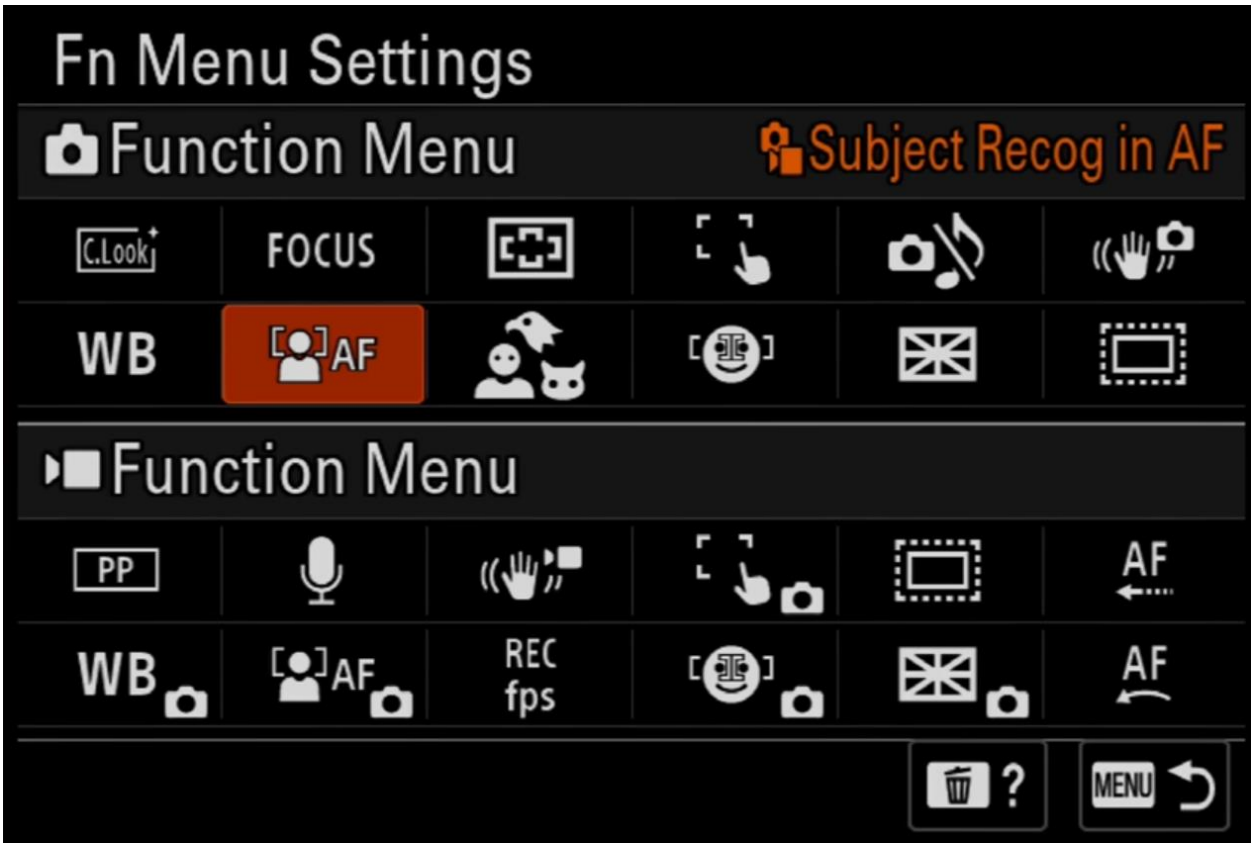
This may help parse down your choices after viewing Sara's explanations.

Understanding Sony Auto Focus Modes

Jason Vong has an excellent tutorial explaining all the Sony Auto Focus Modes.

https://www.youtube.com/watch?v=8zTggjzig-w


Face/Eye Prior. in AF
Lv 12
AF-C
ON
ST
AF 5
AF 5
Act
AF ON
OFF
PP OFF
STBY
/ Change
MENU


Fn Menu Settings
Function Menu
Subject Recog in AF
C.Look
FOCUS
WB
AF
Function Menu
PP
AF
WB
AF
REC fps
AF
MENU

Fujifilm Cameras

You can save even more by stepping down to a smaller Micro 4/3 17mm x 13mm sensor.

Fujifilm has popularized Micro 4/3 format. The camera bodies are smaller, the lenses are cheaper and more compact and come in affordable packages.

Lucas Benjamin explains the mass appeal of Fujifilm cameras and why they stay away from Full Frame sensors. Fuji owns 40% of the non-full frame camera market.

https://www.youtube.com/watch?v=4MBzIs0dnbE

Fujifilm X-T50 Camera

The Fujifilm X-T50 Mirrorless Camera is highly sought after by travellers who want to carry a small camera that takes excellent pictures.

B&H sells the Basic Bundle for $1,499.

Fujifilm X100VI Camera

The Fujifilm X100VI 40MP camera comes with 5-axis In-Body Image stabilization.

B&H sells this for $1,799.

Photography Tools

Here are some Photography Tools that you may find useful.

DXOMark

DXOMark is a great resource for comparing different camera sensors and lenses.

https://www.dxomark.com/camera-sensors/

Top Camera Sensors

Filter by | Format | Type | Brand | Laun

Rank	Device	Launch Price	Launch Date	OVERALL
1.	Hasselblad X1D-50c	$8995	Jun 2016	102
2.	Pentax 645Z	$8499	Apr 2014	101
3.	Leica M11	$8350	Jan 2022	100
=	Nikon Z7II	$3399	Oct 2020	100
=	Nikon D850	$3300	Aug 2017	100
=	Panasonic Lumix DC-S1R	$3700	Jan 2019	100
=	Sony A7R V	$3900	Oct 2022	100
=	Sony A7R III	$3200	Oct 2017	100
9.	Nikon Z7	$3400	Aug 2018	99

https://www.dxomark.com/camera-lenses/

Top Camera Lenses

Filter by | Brand | Mount Type | Lens Size | Lens Type | Launch Price | 1987-

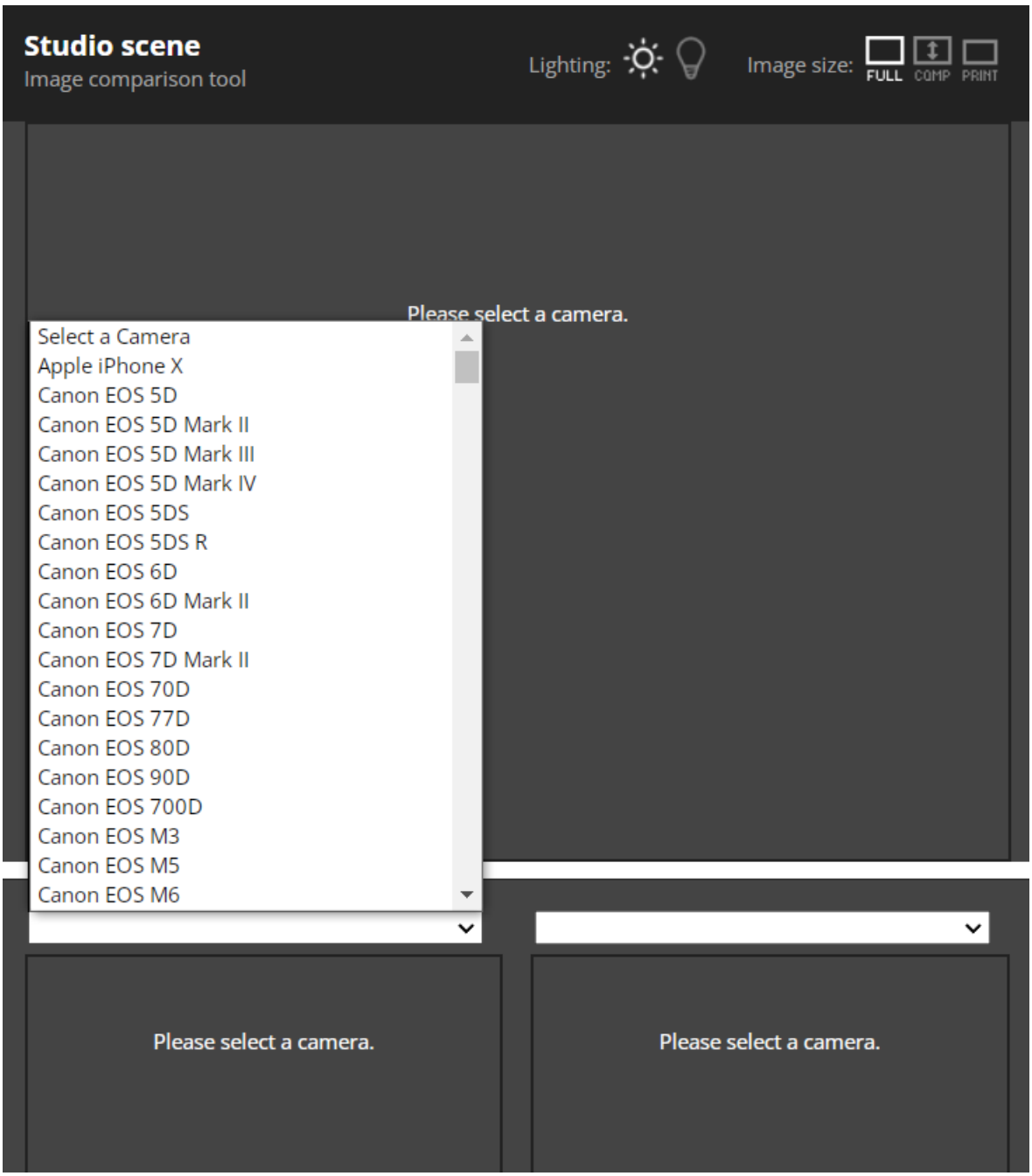
Rank	Device	Launch Price	Launch Date	OVERALL
1.	Nikon NIKKOR Z 85mm f/1.2 S On: Nikon Z7	$2797	Jan 2023	55
=	Nikon NIKKOR Z 58mm f/0.95 S Noct On: Nikon Z7	$8000	Oct 2019	55
=	Sigma 50mm F1.4 DG DN Art Sony On: Sony A7R IV	$849	Feb 2023	55
4.	Canon RF 135mm F1.8 L IS USM On: Canon EOS R5	$2099	Nov 2022	53
5.	Sigma 85mm F1.4 DG HSM A Nikon On: Nikon D800E	$1199	Sep 2016	51
=	Yongnuo YN 85mm F1.8S DF DSM On: Sony A7R IV	$345	Mar 2021	51
7.	Carl Zeiss Distagon T* Otus 1.4/55 ZF.2 Nikon On: Nikon D800E	$3999	Oct 2013	50
8.	Canon EF 85mm f/1.4L IS USM On: Canon EOS 5DS R	$1600	Aug 2017	49

Image Comparison Tool

https://www.dpreview.com/reviews/image-comparison

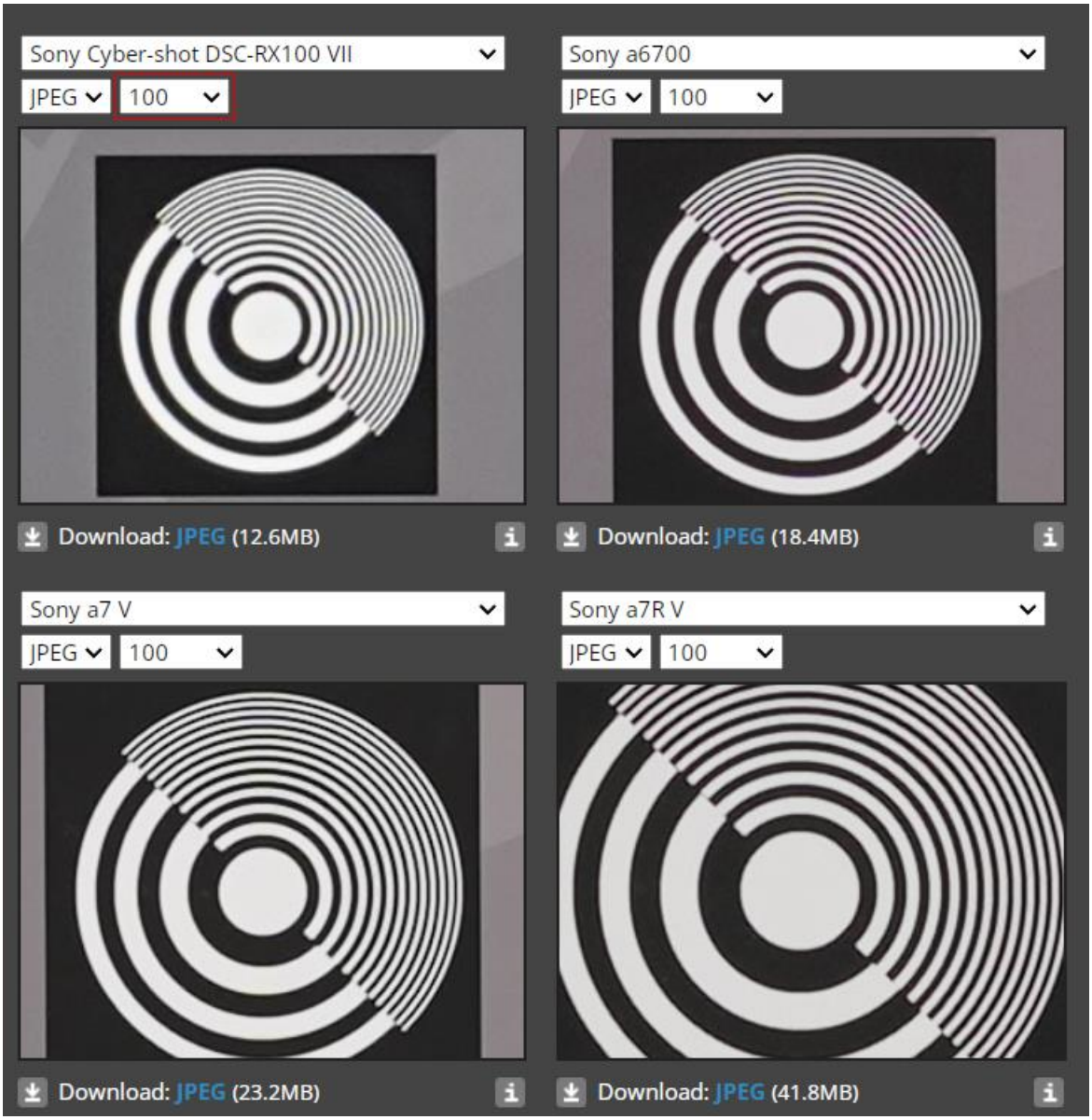
This tool lets you compare 4 cameras at once.

Begin by selecting a Camera.

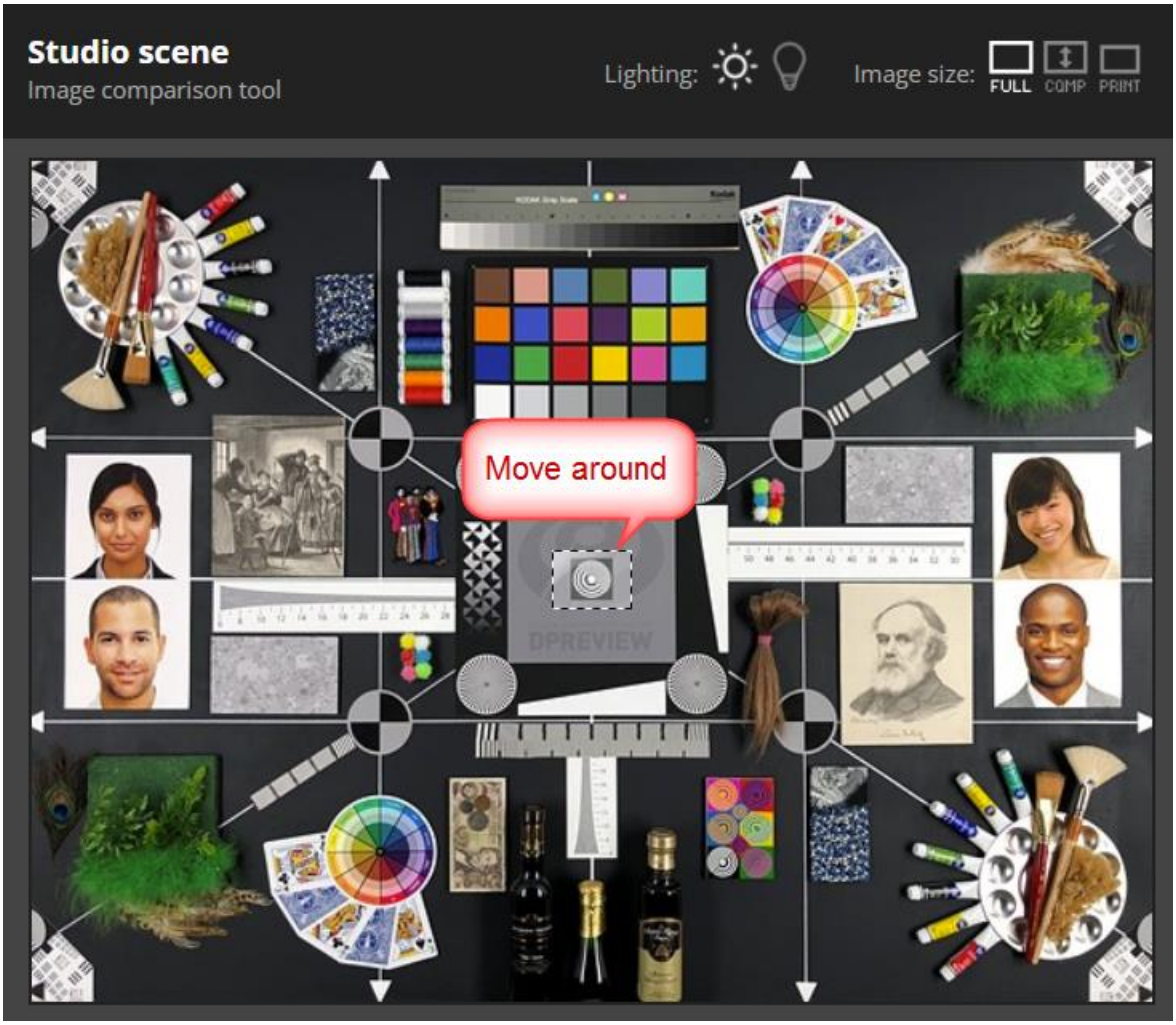


Select the following 4 Cameras:

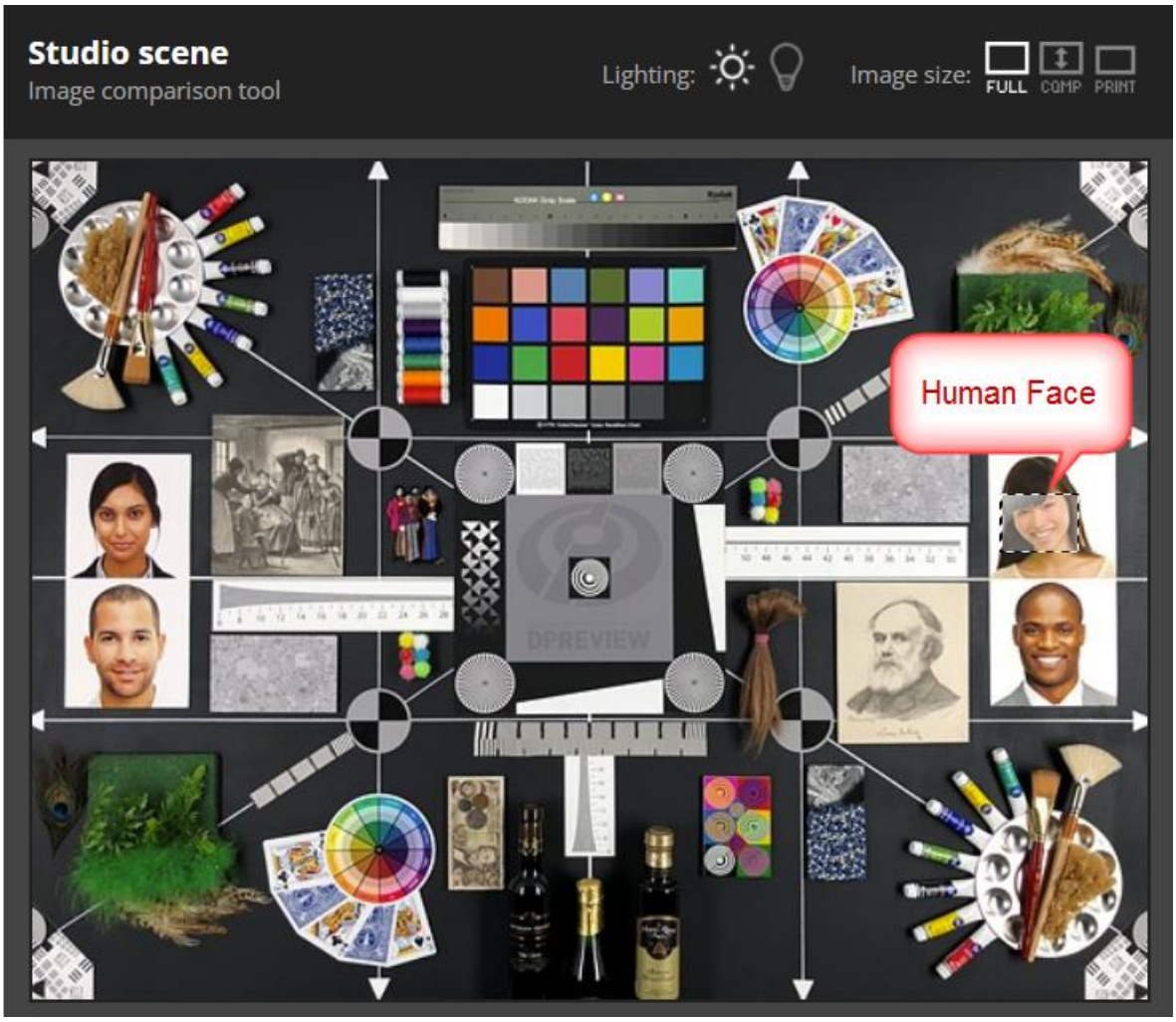
- Sony RX100 VII
- Sony A6700
- Sony A7 V
- Sony A7R V



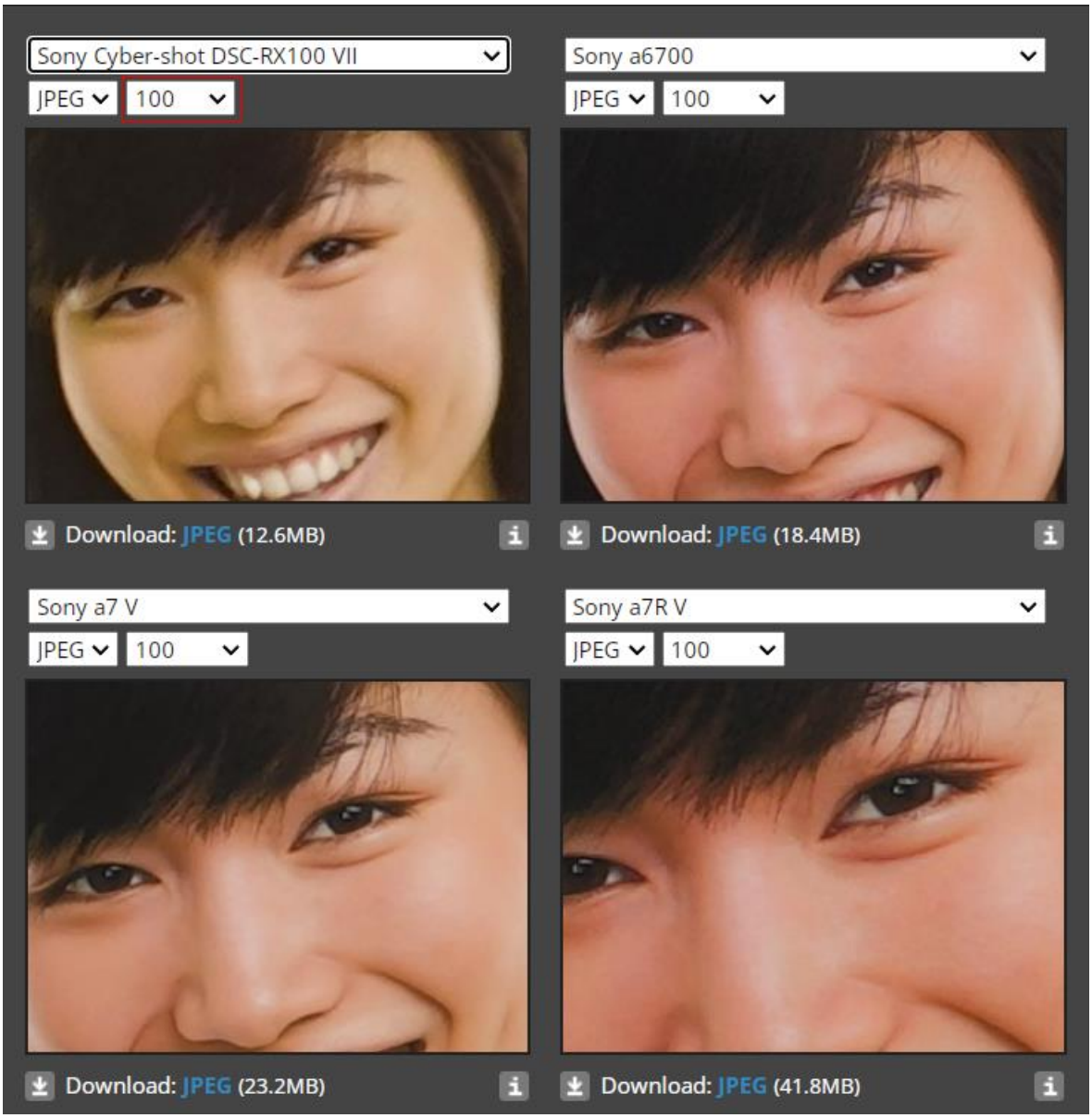
You can drag the box to move around the image.



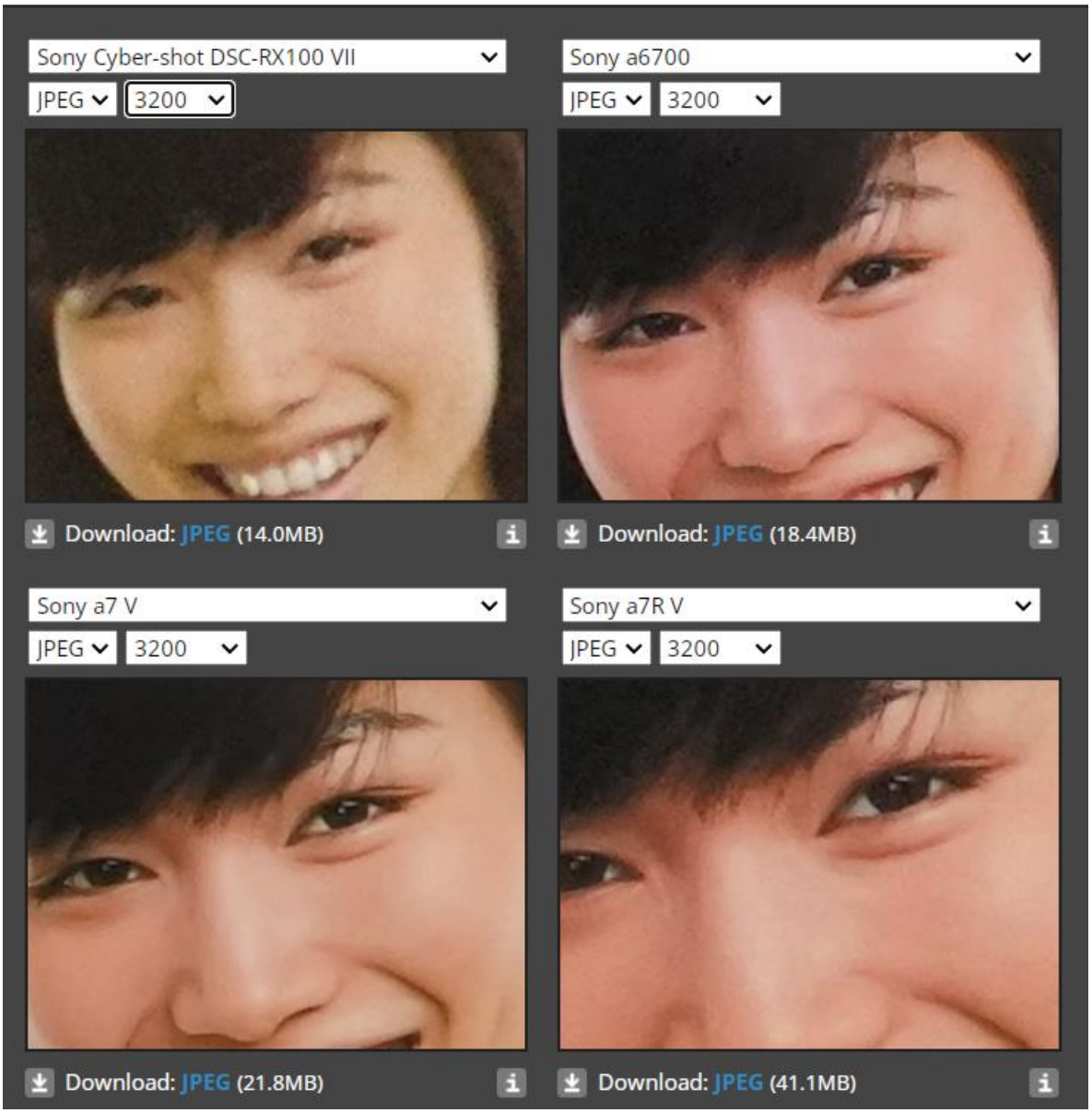
Move the box over the face of a subject.



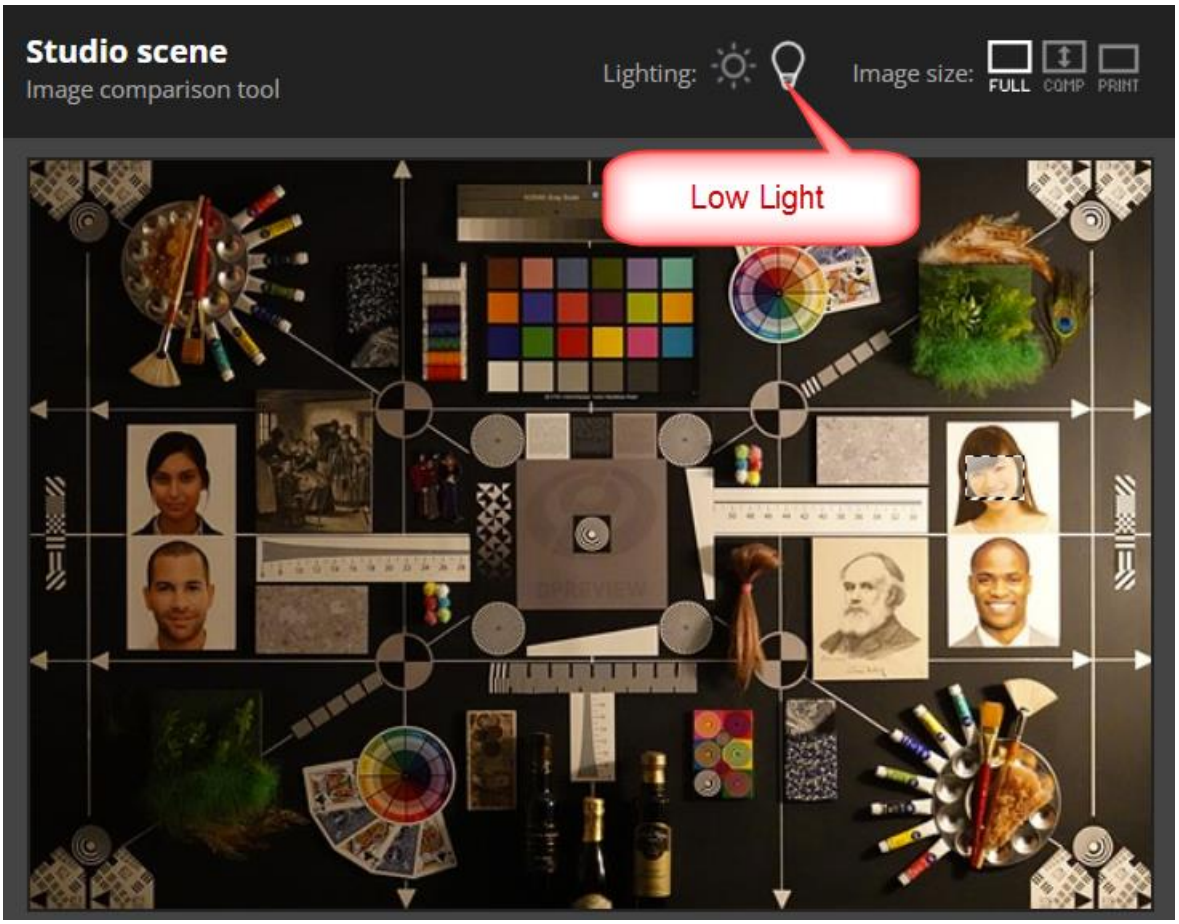
Compare the images from the 4 Cameras at ISO = 100



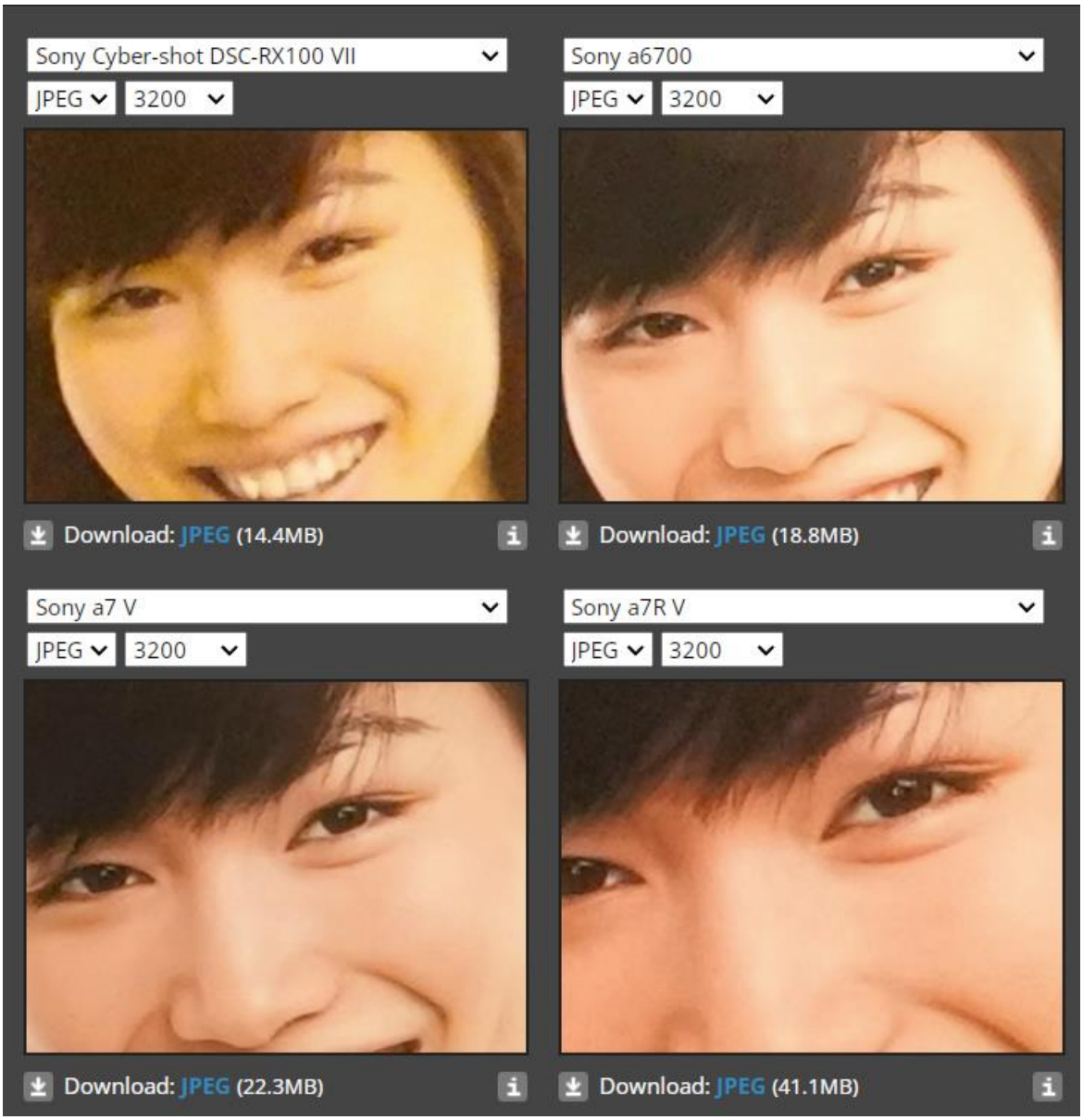
Change the ISO to 3200 on the 4 Sony Cameras and see the differences.



Switch to Low Light Mode.



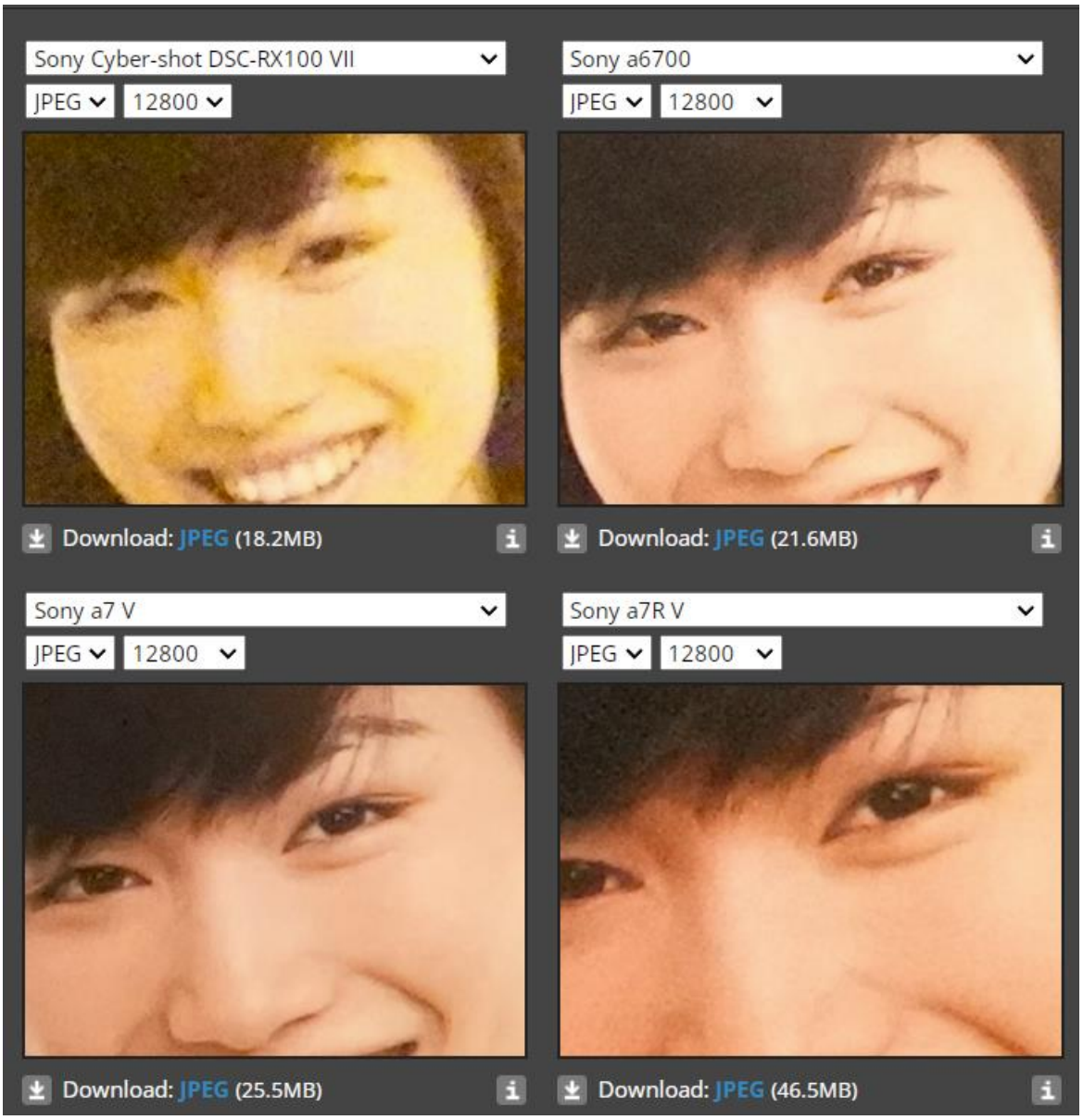
Examine how it affects the 4 Sony Cameras:



Raise the ISO to 12800.

Notice how the RX100 VII image becomes unusable. It performs poorly in low light.
The A6700 image is grainy.
The Sony A7 V image looks good.
The Sony A7R V image is inferior to the Sony A7 V.

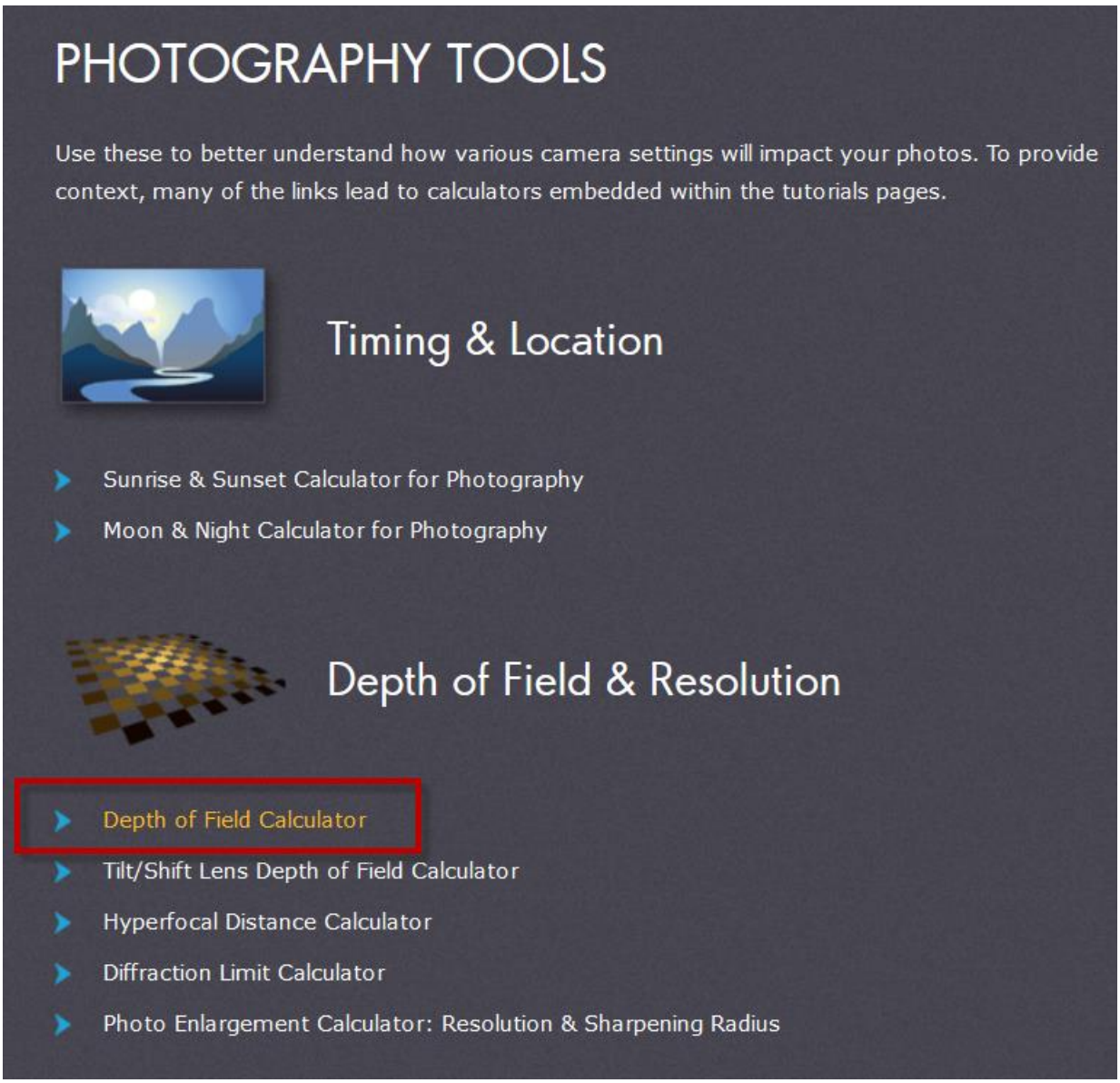
Conclusion: The Sony A7 V is the clear low light champ.



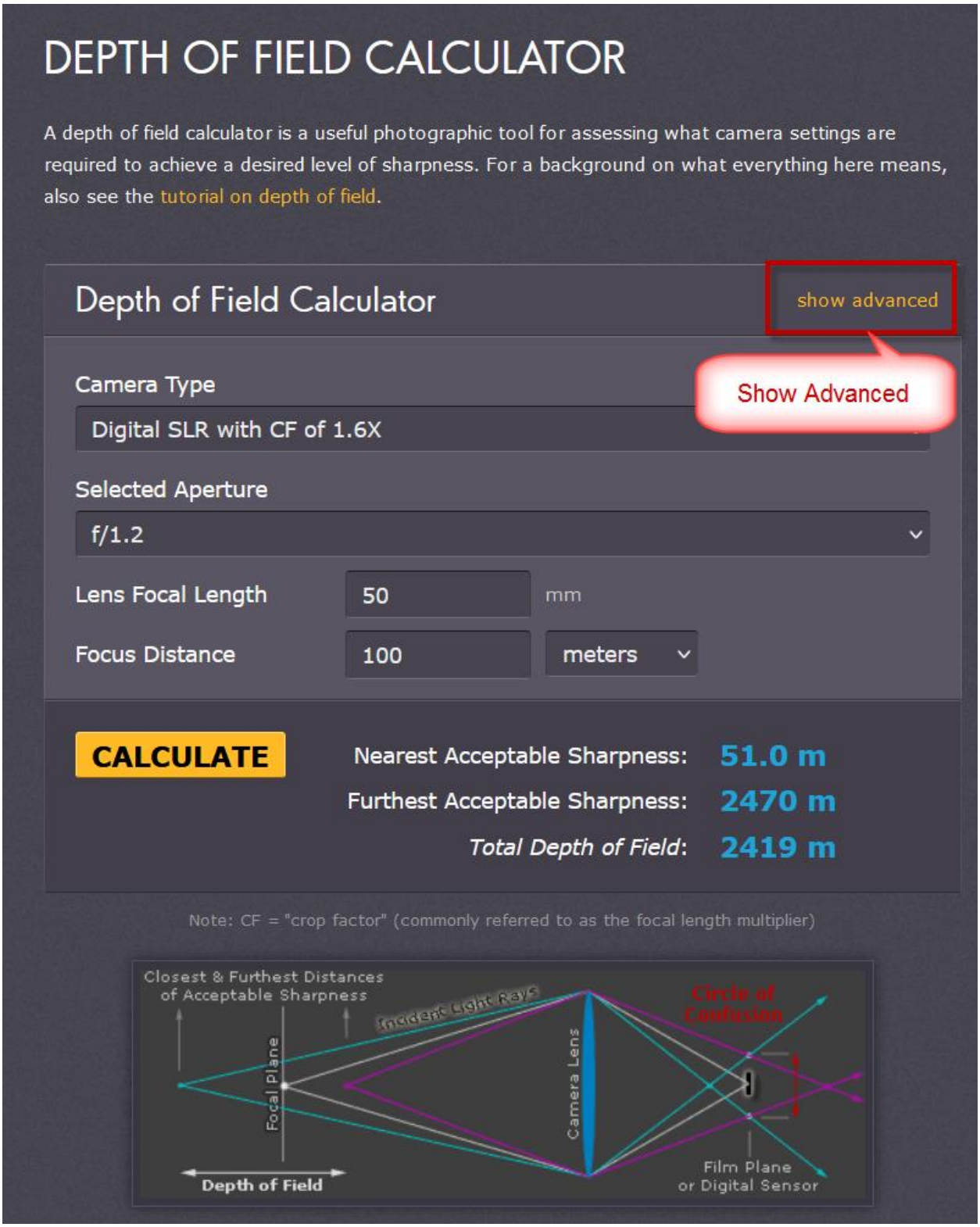
Depth of Field Calculator

https://www.cambridgeincolour.com/photography-tools.htm

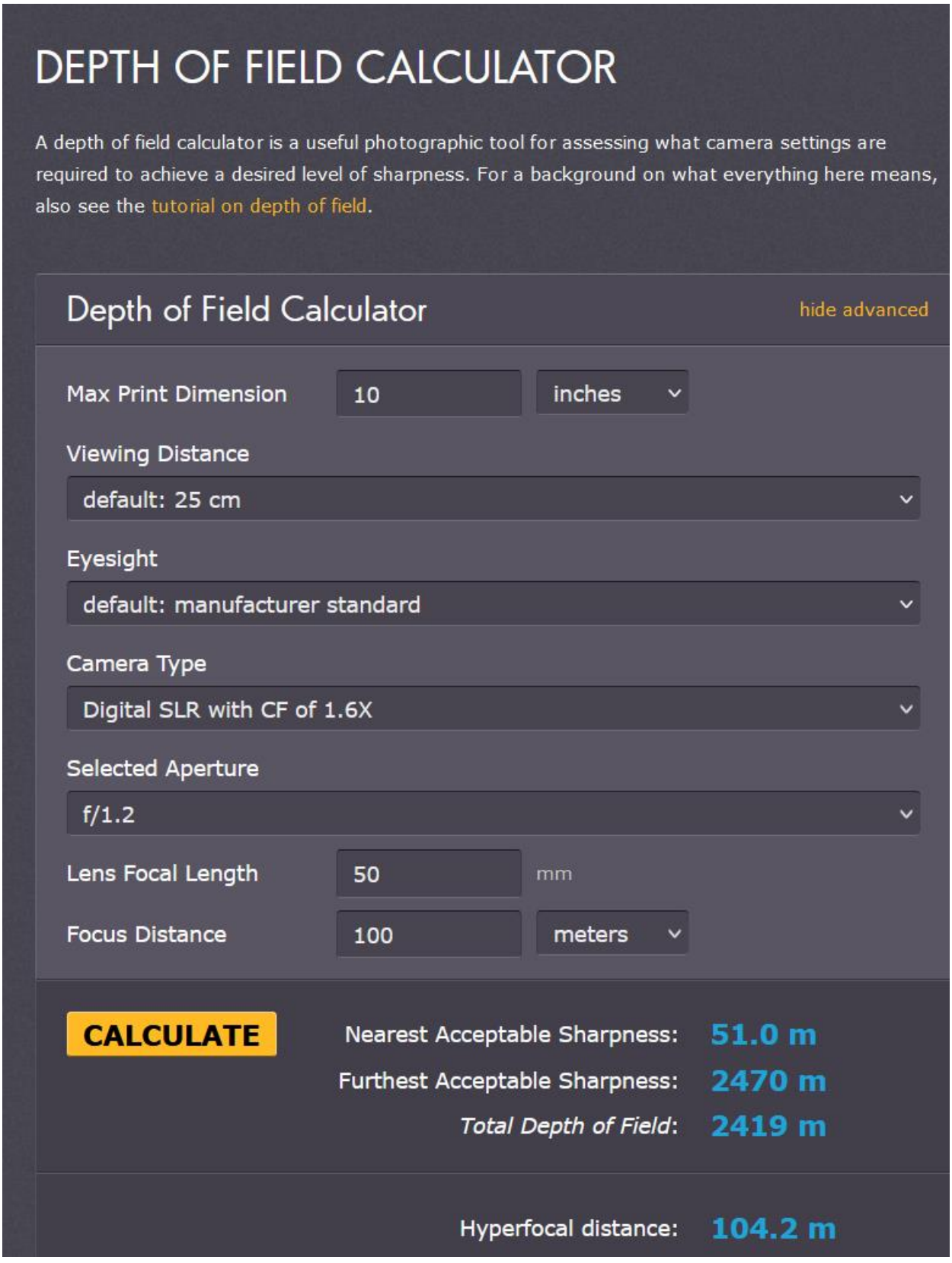
Launch the Depth of Field Calculator.



Click on Show Advanced

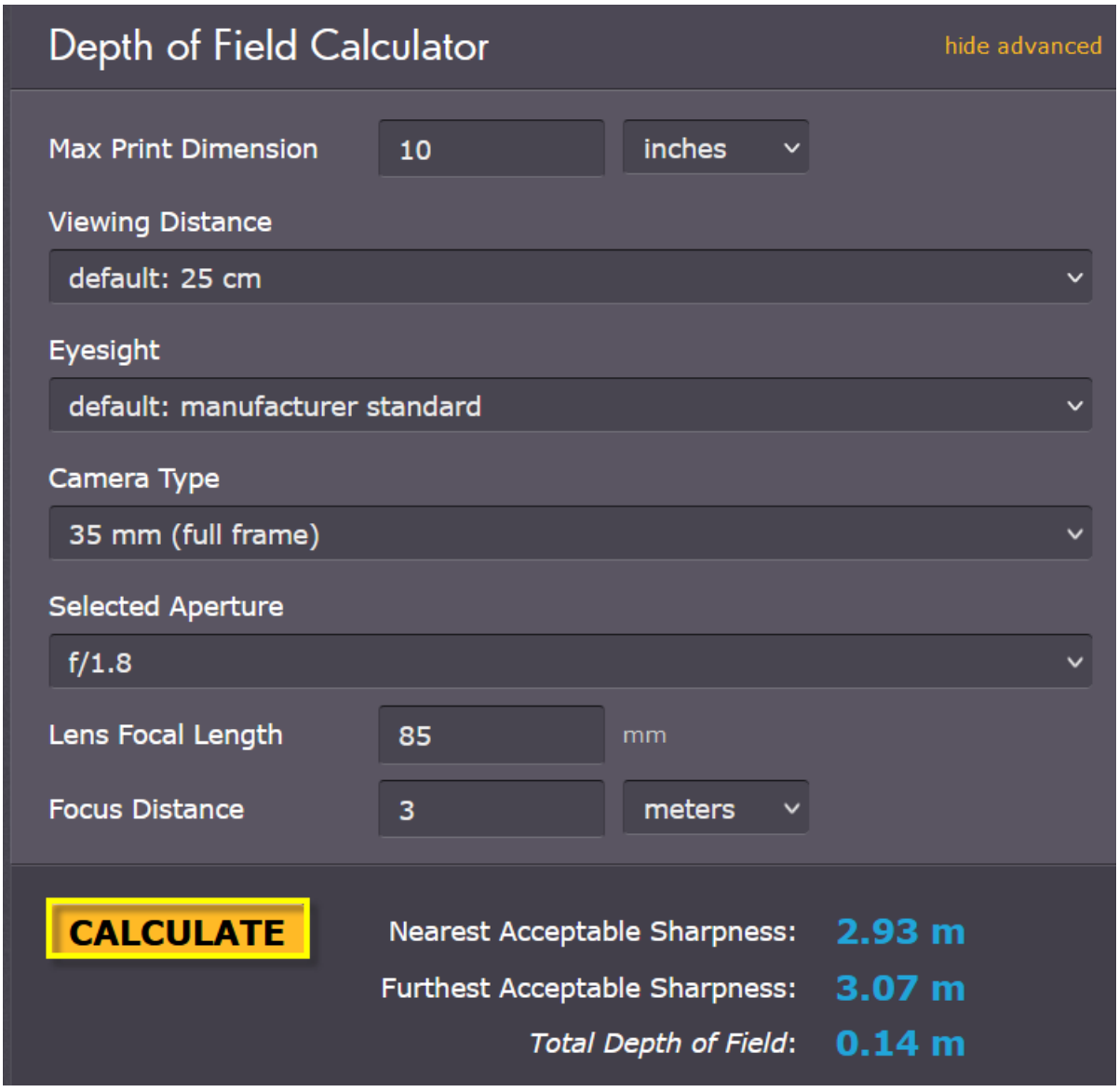


You may now enter the specifics of your camera and lens.



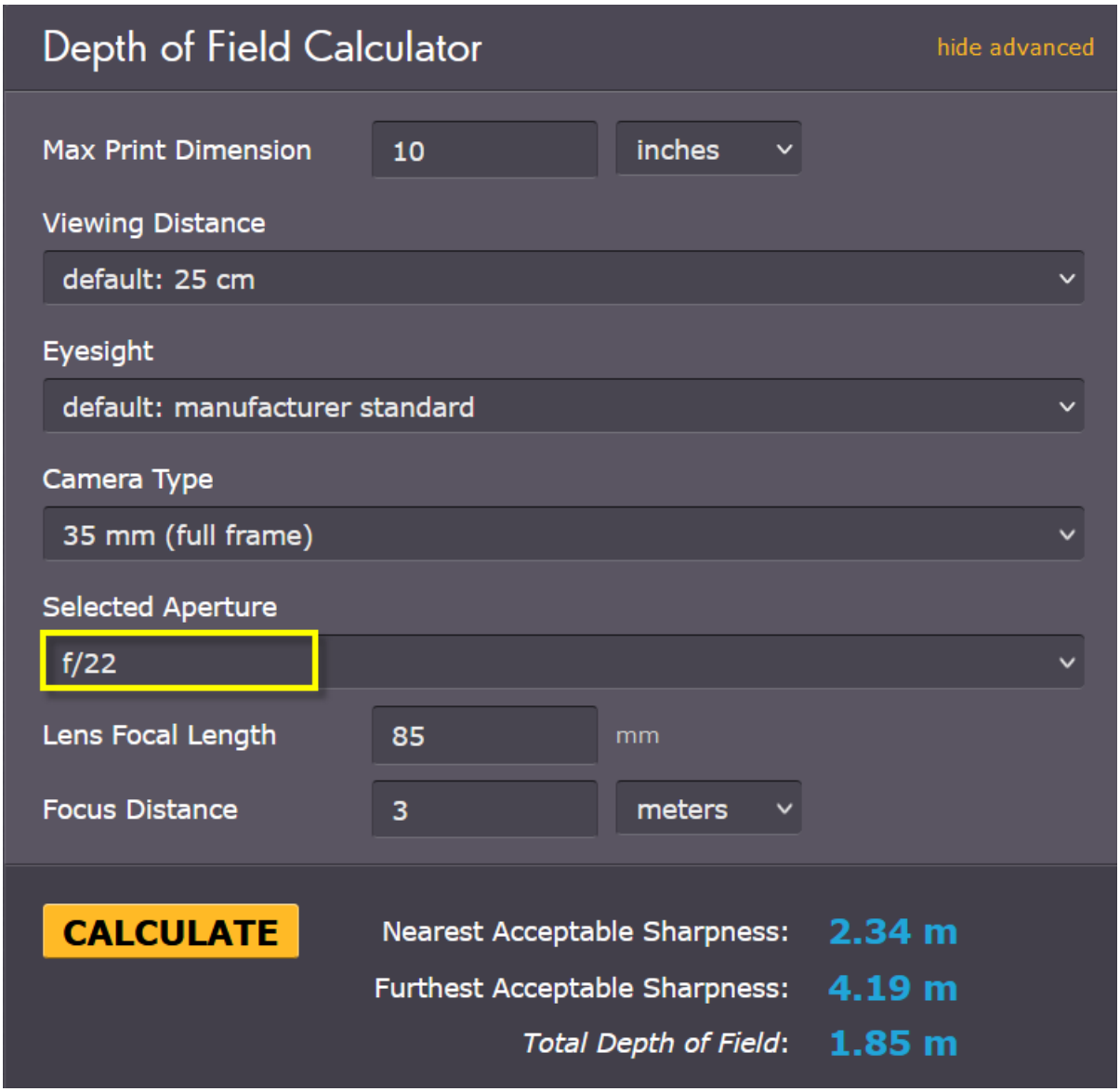
Consider the Sony FE 80mm f/1.8 lens mounted on a Sony A7C II full frame camera.

Camera Type = 35mm (full frame)
Lens Aperture = f/1.8
Focal Length = 85mm
Focus Distance = 3 meters



Press the Calculate button to see the Depth of Field.
Objects between 2.93m and 3.07m will remain in sharp focus.

Reduce the Aperture to f/22



Press the **Calculate** button.

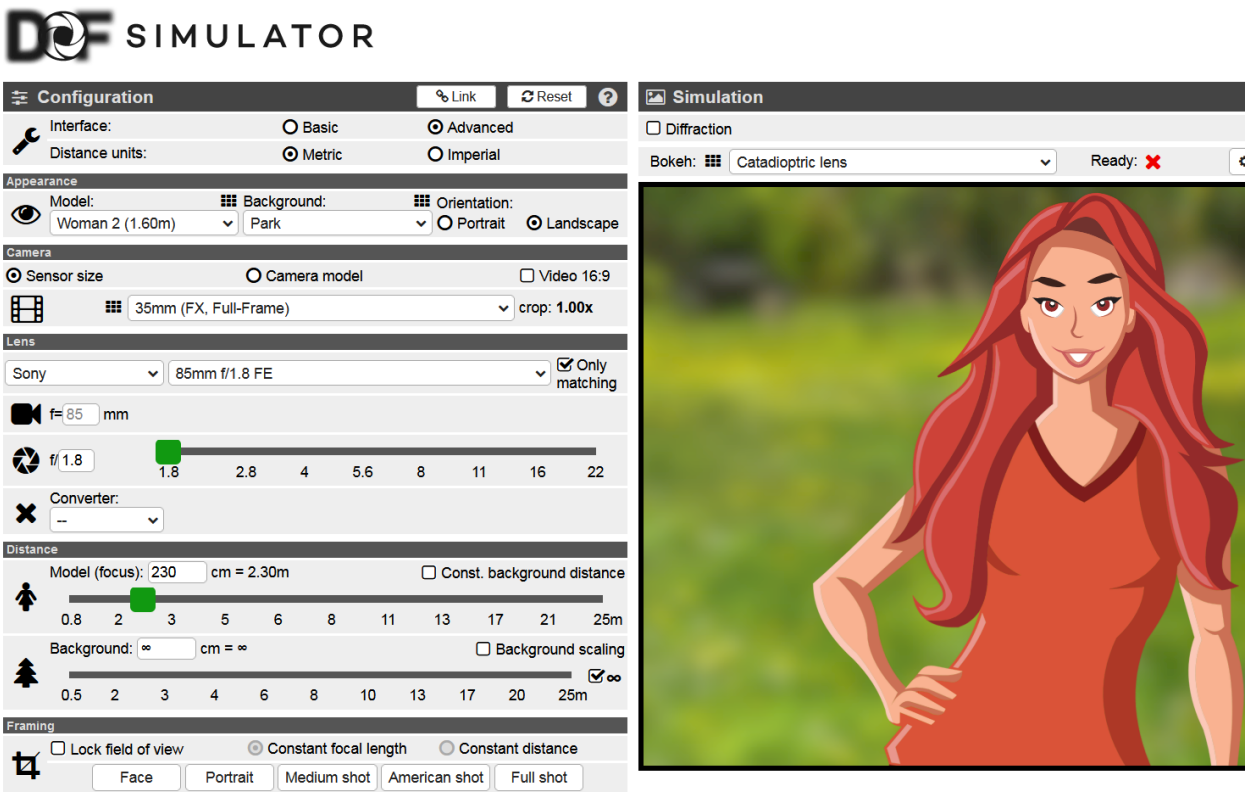
Objects between 2.34m and 4.19m will remain in sharp focus.

The Depth of Field increases from 0.14m at f/1.8 to 1.85m at f/22.

Depth of Field Simulator

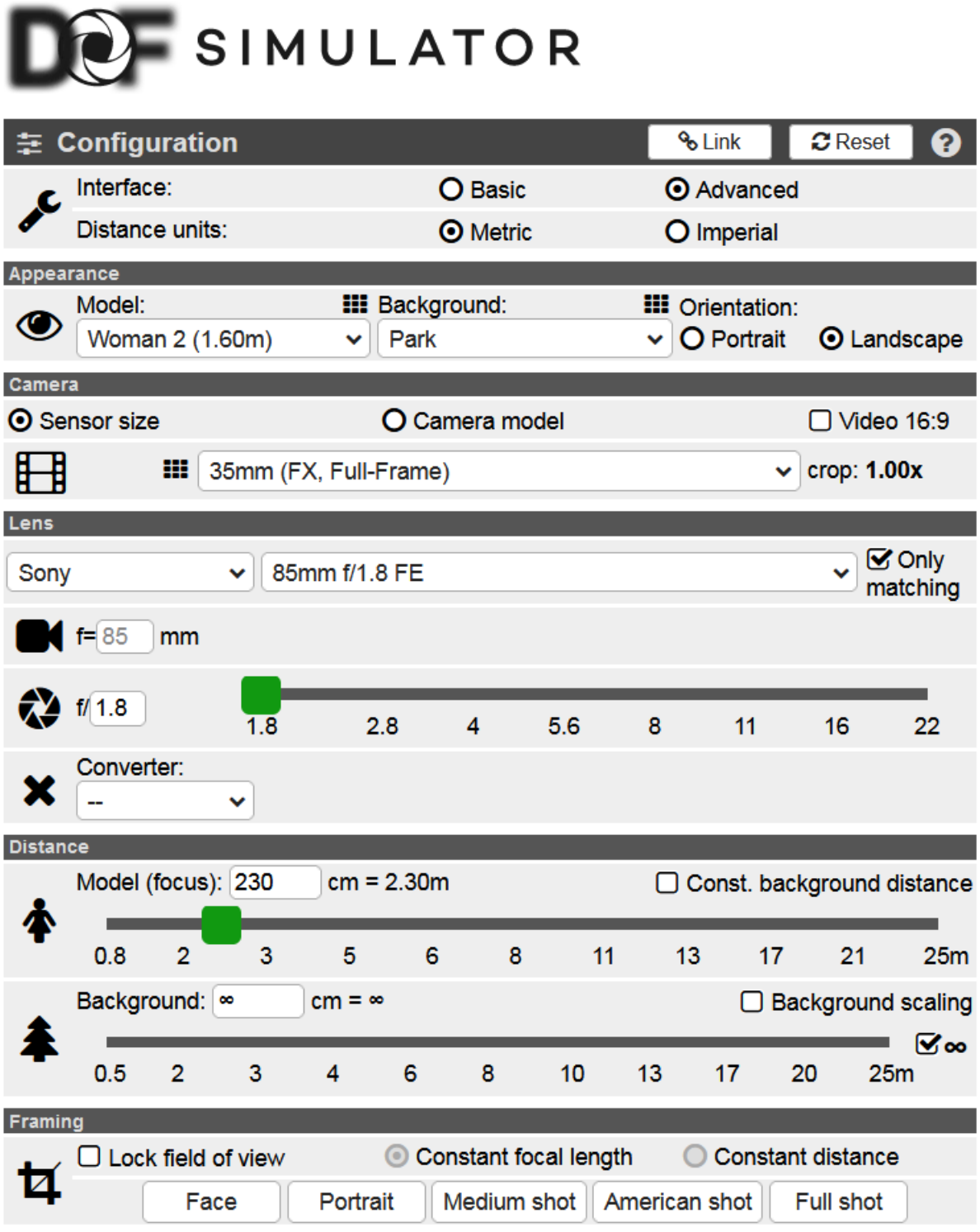
https://dofsimulator.net/en/

This is another handy tool to simulate the Depth of Field based on your lens parameters.

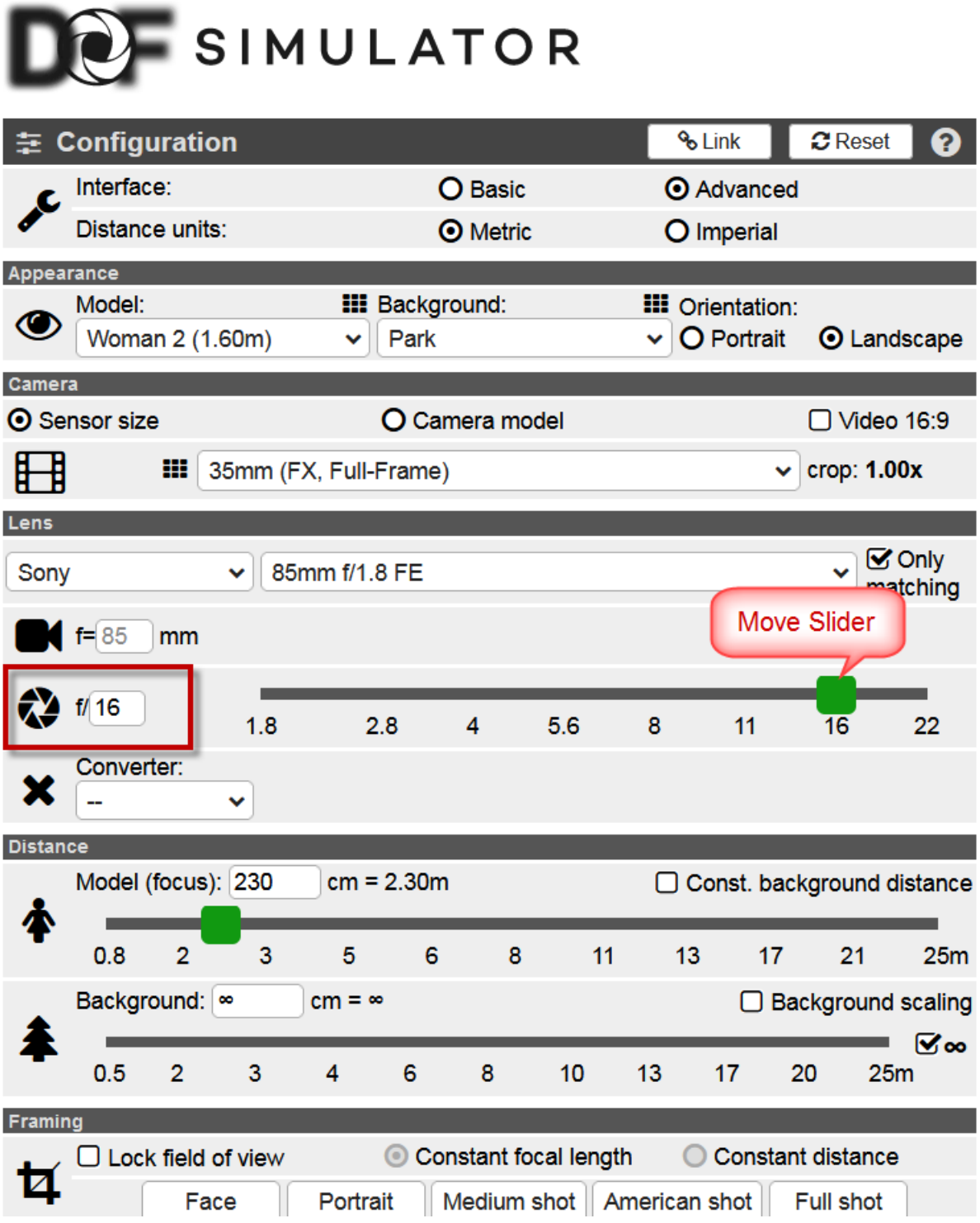


Make the following settings:

Sensor size = 35mm (Full Frame)
Lens = Sony, 85mm f/1.8
Focal Length = 85mm
Aperture = f/1.8

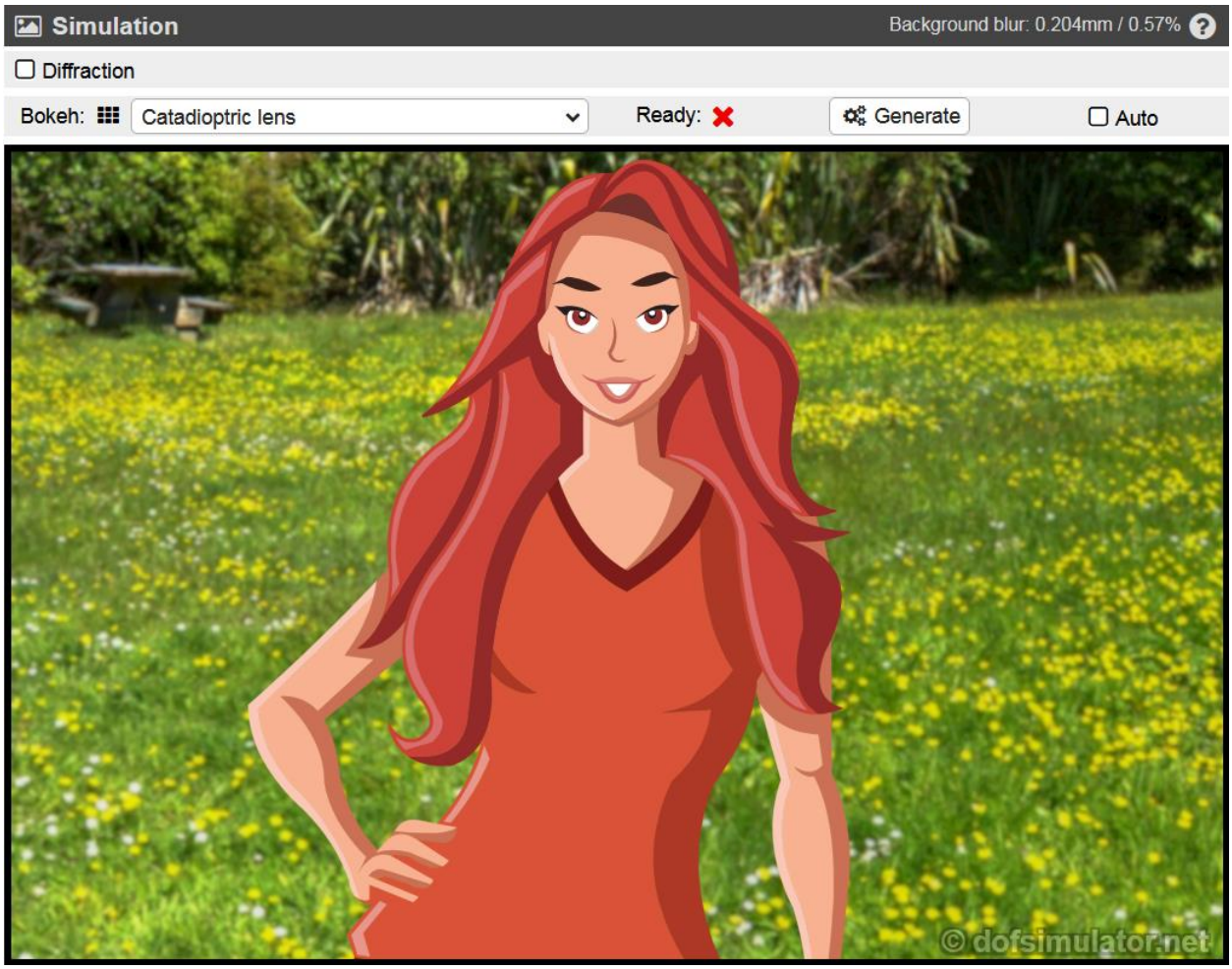

DOF SIMULATOR
Configuration
Link
Reset
Interface:
Basic
Advanced
Distance units:
Metric
Imperial
Appearance
Model:
Woman 2 (1.60m)
Background:
Park
Orientation:
Portrait
Landscape
Camera
Sensor size
Camera model
Video 16:9
35mm (FX, Full-Frame)
crop: 1.00x
Lens
Sony
85mm f/1.8 FE
Only matching
f= 85 mm
f/ 1.8
1.8 2.8 4 5.6 8 11 16 22
Converter:
--
Distance
Model (focus): 230 cm = 2.30m
Const. background distance
0.8 2 3 5 6 8 11 13 17 21 25m
Background: ∞ cm = ∞
Background scaling
∞
0.5 2 3 4 6 8 10 13 17 20 25m
Framing
Lock field of view
Constant focal length
Constant distance
Face
Portrait
Medium shot
American shot
Full shot

Reduce the Aperture to f/16.



Here is the simulated Depth of Field.

More of the background is in focus with a smaller aperture setting.

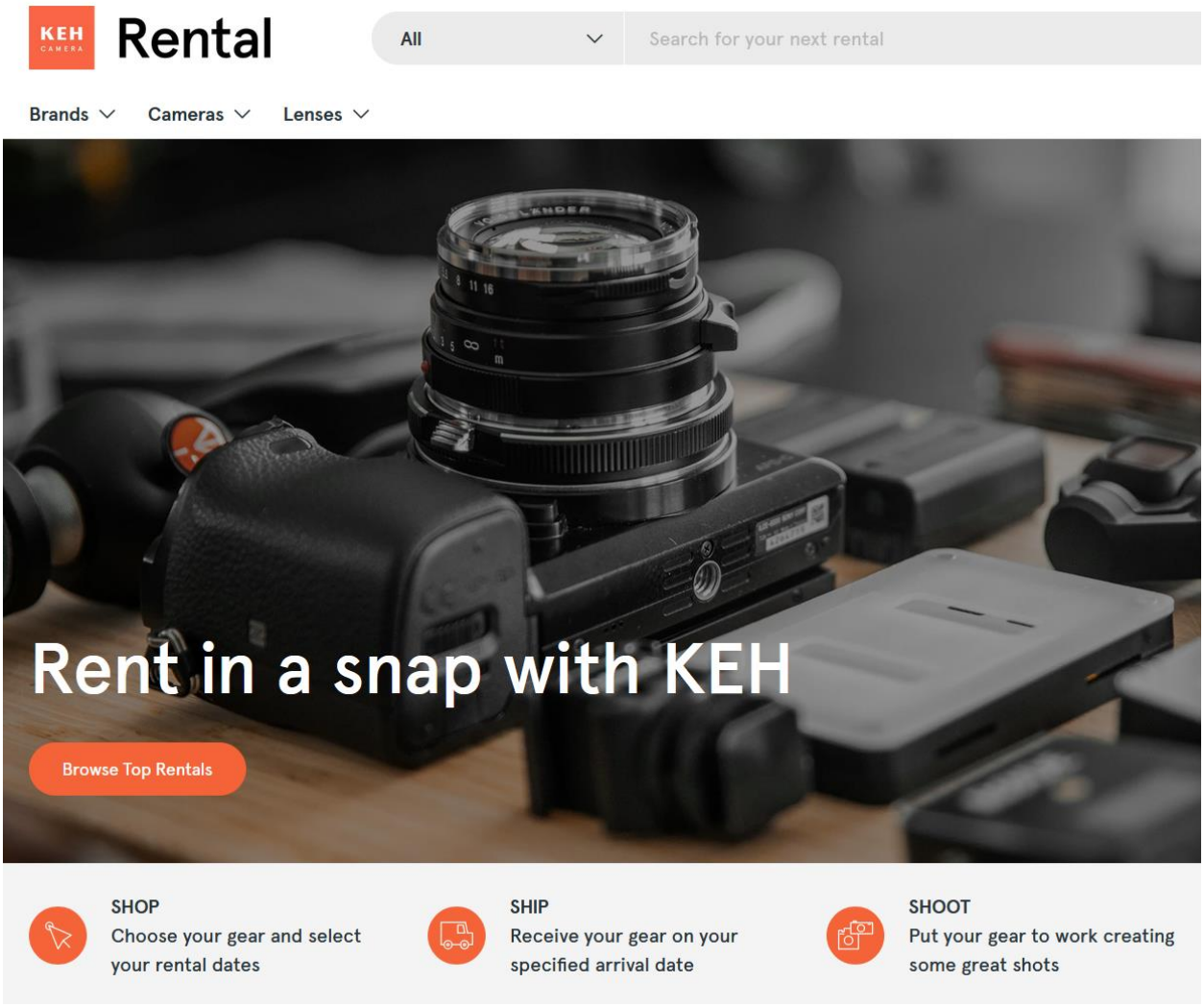


Renting, Selling and Buying Used Cameras

The best way to try out an expensive camera or lens is to rent it for a few days and put it through its paces.

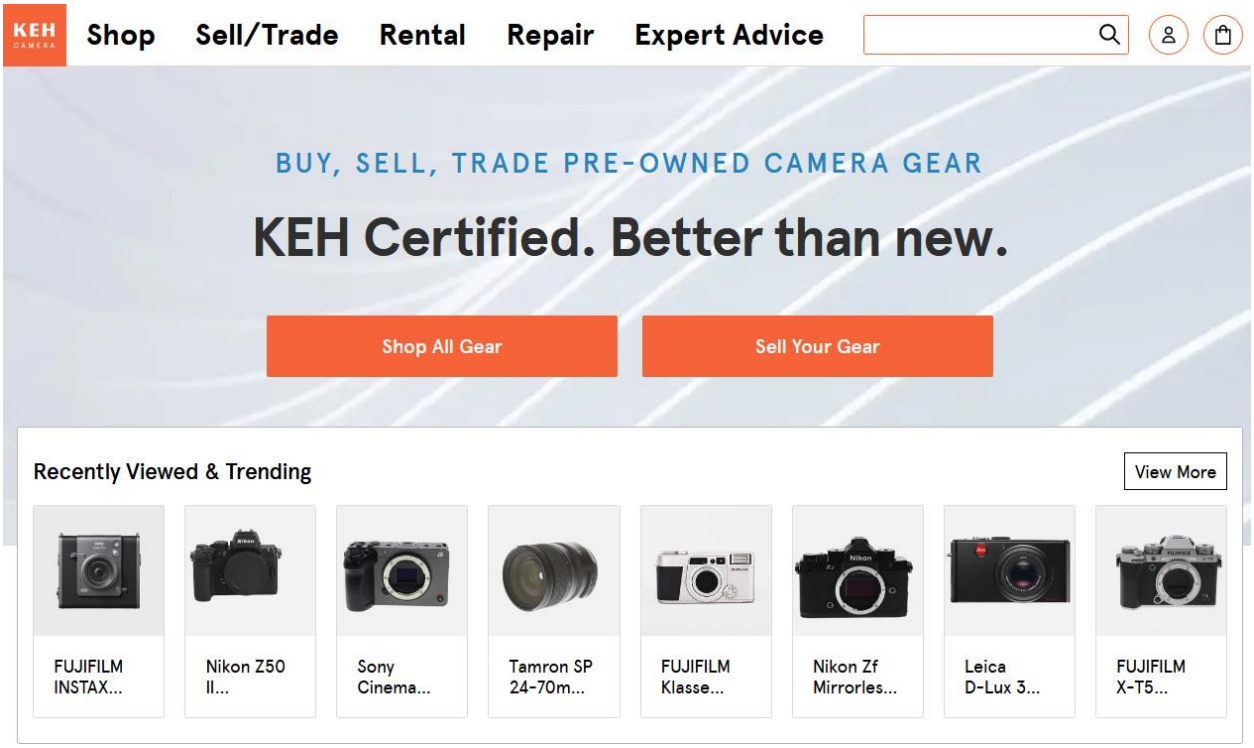
KEH.com offers affordable deals on camera rental gear.

https://rental.keh.com/



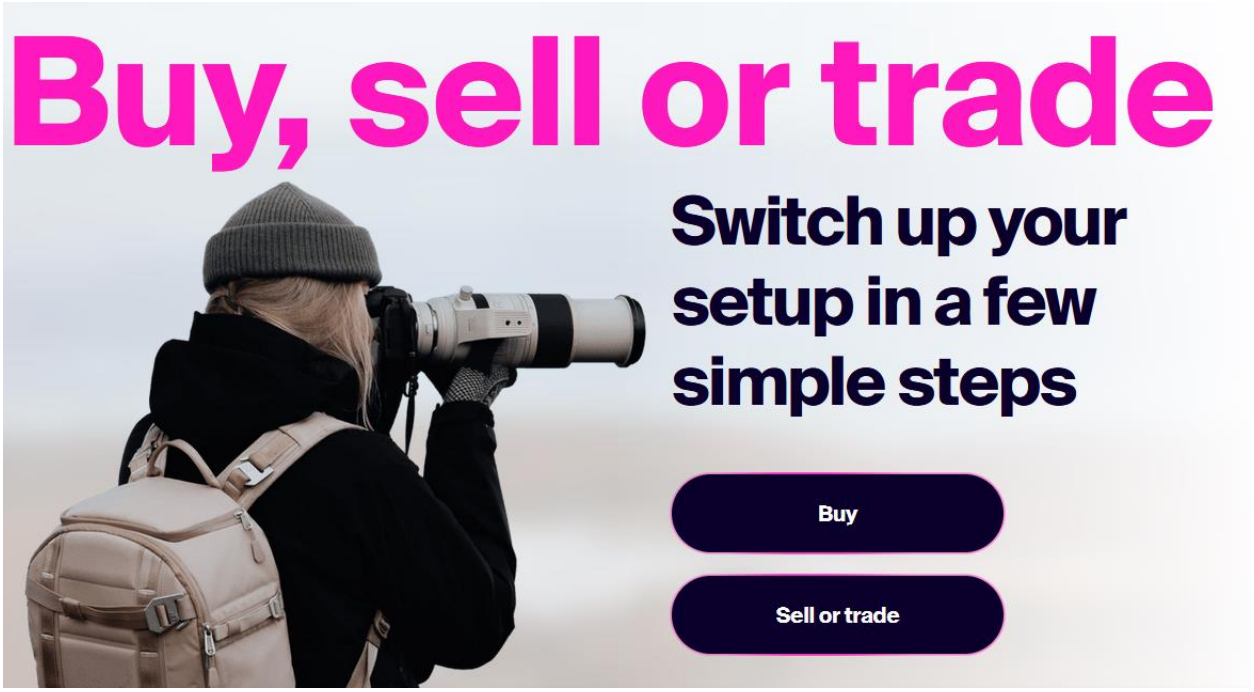
KEH.com is also the best place to sell and trade your camera gear.

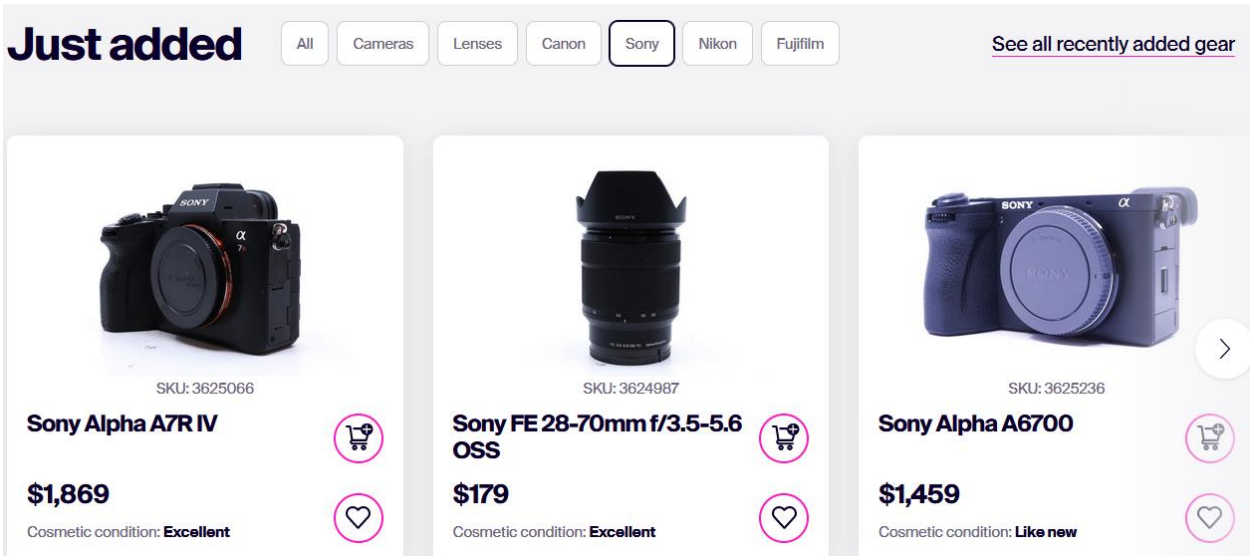
https://www.keh.com/



MPB.com is another place to buy, sell or trade your camera gear.

https://www.mpb.com/en-us





Special Thanks

I would like to take this opportunity to convey my special thanks and gratitude to everyone who inspired me and helped me select the right camera gear for my needs.

Club President John Harvell

My journey into semi-professional photography began with John trusting me with the role of being the reviewer for the Arizona Audio Video Club. It opened up a whole new world of possibilities learning how to take the sharp photos that you see in product brochures and magazines.

Without this responsibility, I would have still been taking photos with my Sony RX100 M5A pocket camera.

Club Secretary David Snyder

I was pleasantly surprised to find that David is also into high-end Photography. He shared his photo albums with me and explained what camera and lens combinations he used to get the breathtaking shots.

Recording Engineer Ben Taylor

Besides being a Recording Engineer by profession, Ben is also an expert on Cameras. When I asked him how I could capture sharper images he gave me several options at different price points all of which would exceed the quality I was getting from the Sony RX100 VA.

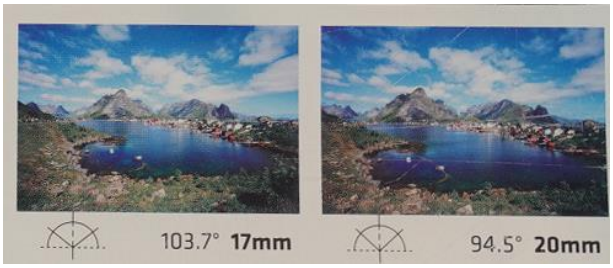
Ben asked me to visit his long-time friend **Guy Reed** at the Tempe Camera Store.

Guy was extremely helpful. He showed me all the options from Canon, Sony, Nikon, Fujifilm, and Olympus. I was able to hold each camera in my hand, feel the grip and balance with different lenses of varying focal lengths and apertures.

It makes a world of difference when you can physically see and hold a product as opposed to looking at brochures and spec sheets on the internet.

It became instantly clear that the Canon Menu System is far easier to navigate and understand than the complex Sony Menu System.

Guy had an interesting display showing what the camera sees at different focal lengths.



The human eye sees the world in 50mm.

Guy recommended the Canon EOS R6 Mark II 24.2MP Full Frame Mirrorless Camera.

https://www.bhphotovideo.com/c/product/1733214-REG/canon_eos_r6_mark_ii.html/

He recommended the Canon RF 14-35mm f/4 L Lens.

https://www.bhphotovideo.com/c/product/1649221-REG/canon_4857c002_rf_14_35mm_f_4l_is.html

If you are thinking of buying a camera, you should definitely spend an afternoon with Guy Reed.

Rachel at the Foto Forum

Rachel at the Foto Forum was very helpful in showing me all the options for my needs.
She explained all the features on the Fujifilm X-S20, Fujifilm X-T50, Sony A6700, Sony A7 IV and Sony A7C II.

I could see how much lighter and compact the Sony A7C II felt compared to the Sony A7 IV.

The Sony A7C II had more advanced options and lightning fast auto focus modes compared to the Fuji and Canon models.

Erin Anglin, Marketing & Media Director at LMC Home Entertainment

I asked Erin how she captured the magazine quality photos at LMC Home Entertainment that appears on the official website. Erin enthusiastically explained to me how she used her Sony Camera, Sony Lenses, Godox lighting equipment, Manfrotto tripods and collection of DJI gimbals to get these professional results.

John Akers, President of Cinematic Home AV

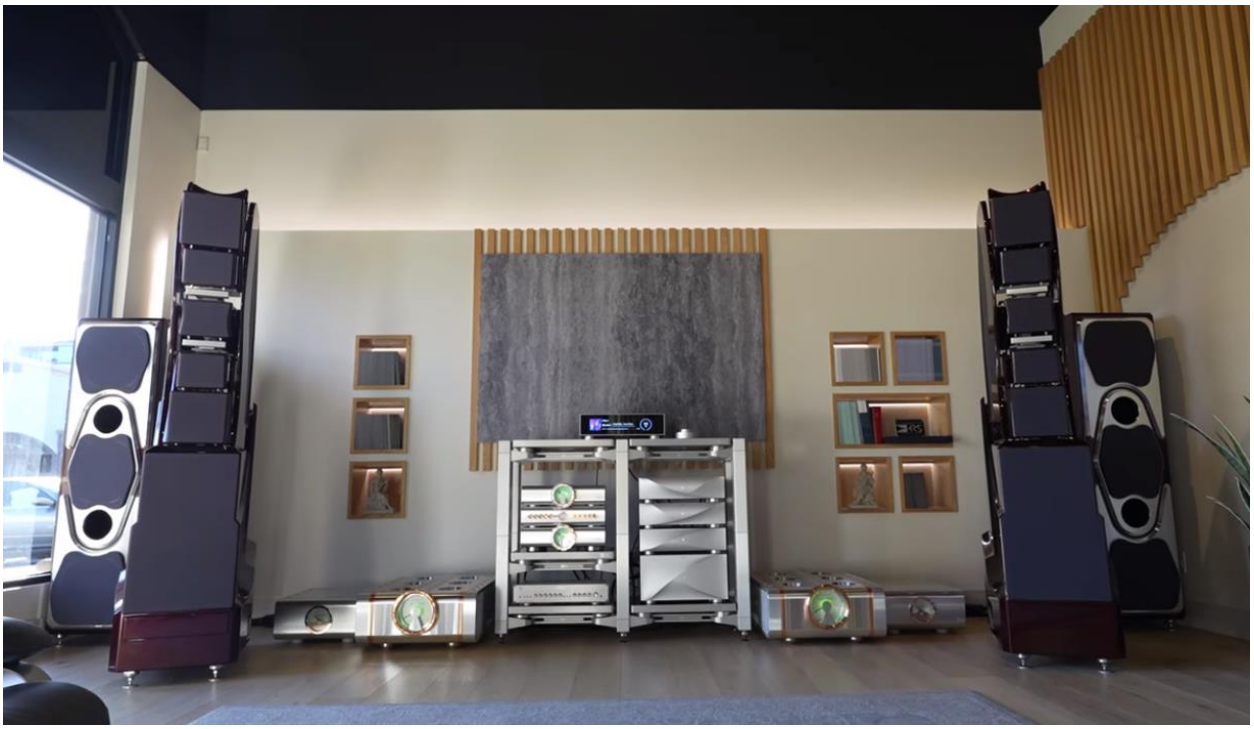
John was gracious enough to show me the Sony Camera and Sony Lenses he was using to capture the product photos.

Kazuya Ohtake, Editor of Audio Visual Catalog, Japan.

My lucky encounter with Kazuya at the dCS Varese Launch Event at LMC, Scottsdale helped me finalize my decision. I watched him document the entire event on his Sony A7C II Full Frame Camera, Sony FE PZ 16-35mm f/4 G Lens and Audio-Technica BP4025 Stereo Microphone mounted on a Sony XLR-K3M Dual Channel XLR Audio Adapter.

Here is the video recording of the event on his YouTube Channel.

https://www.youtube.com/watch?v=kgw6l6mv-bA



One of the benefits of becoming a member of the Arizona Audio Video Club is meeting experts and learning from the gear they use. I am surprised how generous they are with their time and patience summarizing years of professional experience into a list of helpful tips and recommendations.

There is a camera for every budget.

The DJI Osmo Pocket 3 does a remarkable job with its buttery smooth Gimbal action. The Sony A6700 is the champ when you consider the size, weight, performance and cost factor. The Sony A7C II is the ultimate camera for capturing Audio Events. However, it comes at a steep price.

On the other end of the spectrum there is the Sony iPhone 17 Pro. Sometimes the best camera for the job is the one you have at hand. *That is your Smartphone!*

Best regards,

David Das