

Prescott Macintosh Users Group

*presents*

# iPhone Cameras

*What's to know?*

April 9, 2022

# Why Use an iPhone?

When good enough

meets

cost, ease of use, flexibility, and portability

# iPhone 11

## Camera Specs

Dual 12MP Wide and Ultra Wide cameras

Wide:  $f/1.8$  26mm aperture

Ultra Wide:  $f/2.4$  13mm aperture and  $120^\circ$  field of view

2x optical zoom

Digital zoom up to 5x

Portrait mode with advanced bokeh and Depth Control

# iPhone 11

## Camera Specs

Portrait Lighting with six effects

(Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)

Optical image stabilization (Wide)

Five-element lens (Ultra Wide); six-element lens (Wide)

True Tone flash with Slow Sync

Panorama (up to 63MP)

Sapphire crystal lens cover

# iPhone 11

## Camera Specs

100% Focus Pixels (Wide)

Night mode (Wide)

Deep Fusion (Wide)

Next-generation Smart HDR for photos

Wide color capture for photos and Live Photos

Advanced red-eye correction

# iPhone 11

## Camera Specs

Auto image stabilization

Burst mode

Photo geotagging

Image formats captured: HEIF and JPEG

# iPhone 11

## Video Recording

4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps

1080p HD video recording at 25 fps, 30 fps, or 60 fps

720p HD video recording at 30 fps

Extended dynamic range for video up to 60 fps

Optical image stabilization for video (Wide)

2x optical zoom out

# iPhone 11

## Video Recording

Digital zoom up to 3x

Audio zoom

True Tone flash

QuickTake video

Slo-mo video support for 1080p at 120 fps or 240 fps

Time-lapse video with stabilization



# iPhone 11

## Video Recording

Cinematic video stabilization (4K, 1080p, and 720p)

Continuous autofocus video

Take 8MP still photos while recording 4K video

Playback zoom

Video formats recorded: HEVC and H.264

Stereo recording

# iPhone 11

## TrueDepth Camera

12MP camera

*f*/2.2 aperture

Portrait mode with advanced bokeh and Depth Control

Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)

Animoji and Memoji

4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps

# iPhone 11

## TrueDepth Camera

1080p HD video recording at 25 fps, 30 fps, or 60 fps

Slo-mo video support for 1080p at 120 fps

Next-generation Smart HDR for photos

Extended dynamic range for video at 30 fps

Cinematic video stabilization (4K, 1080p, and 720p)

QuickTake video

# iPhone 11

## TrueDepth Camera

Wide color capture for photos and Live Photos

Retina Flash

Auto image stabilization

Burst mode

# iPhone 12

## What's NEW

Wide camera  $f/1.6$  26mm

Seven element wide lens

$f/2.4$  65mm telephoto lens (Pro & Pro Max)

Telephoto lens doesn't support Night Mode

Night mode for all lenses

Smart HDR 3

# iPhone 12

## What's NEW

HDR video recording with Dolby Vision

Deep Fusion for all lenses

Night Mode time lapse

Lens correction (ultra-wide)

LIDAR in Pro & Pro Max

Brighter True Tone flash

# iPhone 12

## What's NEW

Time lapse with video stabilization

# iPhone 13

**What's NEW for All Models**

Cinematic Focus Mode

Sensor-shift optical image stabilization (Wide)

Photographic Styles

Smart HDR 4



# iPhone 13

## What's NEW Pro & Pro Max

New 77mm telephoto camera with 3x optical zoom

Increased night mode performance

Shoot and edit ProRes video

Improved Augmented Reality performance

**iPhone 11****CAMERA**

Dual 12MP Wide and Ultra Wide cameras  
 Wide: *f*/1.8 aperture  
 Ultra Wide: *f*/2.4 aperture and 120° field of view  
 2x optical zoom out  
 Digital zoom up to 5x  
 Portrait mode with advanced bokeh and Depth Control  
 Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)  
 Optical image stabilization (Wide)  
 Six-element lens (Wide); five-element lens (Ultra Wide)  
 True Tone flash with Slow Sync  
 Panorama (up to 83MP)  
 Sapphire crystal lens cover  
 100% Focus Pixels (Wide)  
 Night mode (Wide)  
 Deep Fusion (Wide)  
 Next-generation Smart HDR for photos  
 Wide color capture for photos and Live Photos  
 Advanced red-eye correction  
 Auto image stabilization  
 Burst mode  
 Photo geotagging  
 Image formats captured: HEIF and JPEG

**VIDEO RECORDING**

4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
 1080p HD video recording at 25 fps, 30 fps, or 60 fps  
 720p HD video recording at 30 fps  
 Extended dynamic range for video up to 60 fps  
 Optical image stabilization for video (Wide)  
 2x optical zoom out  
 Digital zoom up to 3x  
 Audio zoom  
 True Tone flash  
 QuickTake video  
 Slo-mo video support for 1080p at 120 fps or 240 fps  
 Time-lapse video with stabilization  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 Continuous autofocus video  
 Take 8MP still photos while recording 4K video  
 Playback zoom  
 Video formats recorded: HEVC and H.264  
 Stereo recording

**TRUE DEPTH CAMERA**

12MP camera  
*f*/2.2 aperture  
 Portrait mode with advanced bokeh and Depth Control  
 Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)  
 Animoji and Memoji  
 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
 1080p HD video recording at 25 fps, 30 fps, or 60 fps  
 Slo-mo video support for 1080p at 120 fps  
 Next-generation Smart HDR for photos  
 Extended dynamic range for video at 60 fps  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 QuickTake video  
 Wide color capture for photos and Live Photos  
 Retina Flash  
 Auto image stabilization  
 Burst mode

**iPhone 12****CAMERA**

Dual 12MP camera system: Ultra Wide and Wide cameras  
 Ultra Wide: *f*/2.4 aperture and 120° field of view  
 Wide: *f*/1.6 aperture  
 2x optical zoom out  
 Digital zoom up to 5x  
 Portrait mode with advanced bokeh and Depth Control  
 Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)  
 Optical image stabilization (Wide)  
 Five-element lens (Ultra Wide); seven-element lens (Wide)  
 Brighter True Tone flash with Slow Sync  
 Panorama (up to 83MP)  
 Sapphire crystal lens cover  
 100% Focus Pixels (Wide)  
 Night mode  
 Deep Fusion  
 Smart HDR 3  
 Wide color capture for photos and Live Photos  
 Lens correction (Ultra Wide)  
 Advanced red-eye correction  
 Auto image stabilization  
 Burst mode  
 Photo geotagging  
 Image formats captured: HEIF and JPEG

**VIDEO RECORDING**

HDR video recording with Dolby Vision up to 4K at 30 fps  
 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
 1080p HD video recording at 25 fps, 30 fps, or 60 fps  
 720p HD video recording at 30 fps  
 Optical image stabilization for video (Wide)  
 2x optical zoom out  
 Digital zoom up to 5x  
 Audio zoom  
 True Tone flash  
 QuickTake video  
 Slo-mo video support for 1080p at 120 fps or 240 fps  
 Time-lapse video with stabilization  
 Night mode Time-lapse  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 Continuous autofocus video  
 Take 8MP still photos while recording 4K video  
 Playback zoom  
 Video formats recorded: HEVC and H.264  
 Stereo recording

**TRUE DEPTH CAMERA**

12MP camera  
*f*/2.2 aperture  
 Portrait mode with advanced bokeh and Depth Control  
 Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)  
 Animoji and Memoji  
 Night mode  
 Deep Fusion  
 Smart HDR 3  
 HDR video recording with Dolby Vision up to 4K at 30 fps  
 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
 1080p HD video recording at 25 fps, 30 fps, or 60 fps  
 Slo-mo video support for 1080p at 120 fps  
 Time-lapse video with stabilization  
 Night mode Time-lapse  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 QuickTake video  
 Wide color capture for photos and Live Photos  
 Lens correction  
 Retina Flash  
 Auto image stabilization  
 Burst mode

**iPhone 13****CAMERA**

Dual 12MP camera system: Wide and Ultra Wide cameras  
 Wide: *f*/1.6 aperture  
 Ultra Wide: *f*/2.4 aperture and 120° field of view  
 2x optical zoom out  
 Digital zoom up to 5x  
 Portrait mode with advanced bokeh and Depth Control  
 Portrait Lighting with six effects (Natural, Studio, Contour, Stage, Stage Mono, High-Key Mono)  
 Sensor-shift optical image stabilization (Wide)  
 Seven-element lens (Wide); five-element lens (Ultra Wide)  
 True Tone flash with Slow Sync  
 Panorama (up to 63MP)  
 Sapphire crystal lens cover  
 100% Focus Pixels (Wide)  
 Night mode  
 Deep Fusion  
 Smart HDR 4  
 Photographic Styles  
 Wide color capture for photos and Live Photos  
 Lens correction (Ultra Wide)  
 Advanced red-eye correction  
 Auto image stabilization  
 Burst mode  
 Photo geotagging  
 Image formats captured: HEIF and JPEG

**VIDEO RECORDING**

Cinematic mode for recording videos with shallow depth of field (in 1080p at 30 fps)  
 HDR video recording with Dolby Vision up to 4K at 60 fps  
 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
 1080p HD video recording at 25 fps, 30 fps, or 60 fps  
 720p HD video recording at 30 fps  
 Sensor-shift optical image stabilization for video (Wide)  
 2x optical zoom out  
 Digital zoom up to 3x  
 Audio zoom  
 True Tone flash  
 QuickTake video  
 Slo-mo video support for 1080p at 120 fps or 240 fps  
 Time-lapse video with stabilization  
 Night mode Time-lapse  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 Continuous autofocus video  
 Take 8MP still photos while recording 4K video  
 Playback zoom  
 Video formats recorded: HEVC and H.264  
 Stereo recording

**TRUE DEPTH CAMERA**

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 Animoji and Memoji  
 Night mode  
 Deep Fusion  
 Smart HDR 4  
 Photographic Styles  
 Cinematic mode for recording videos with shallow depth of field (in 1080p at 30 fps)  
 HDR video recording with Dolby Vision up to 4K at 60 fps  
 4K video recording at 24 fps, 25 fps, 30 fps, or 60 fps  
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 Slo-mo video support for 1080p at 120 fps  
 Time-lapse video with stabilization  
 Night mode Time-lapse  
 Cinematic video stabilization (4K, 1080p, and 720p)  
 QuickTake video  
 Wide color capture for photos and Live Photos  
 Lens correction  
 Retina Flash  
 Auto image stabilization  
 Burst mode

# iPhone 14?

No chunky camera bump

Augmented Reality headsets

48MP wide rear camera (Pro & Pro Max)

# iPhone Photography

Camera Apps

DSLR Camera

ProCamera

Camera+

RAW+

# iPhone Photography

## Tips & Techniques

One-finger swipe left

Take pics with volume control

Adjust focus by tapping screen

Panorama mode for wide angle photos

Shoot wide, crop in

Use Flash for objects closer than 10 feet

# iPhone Photography

## Tips & Techniques

Use HDR for better contrast

Night shots

Depth of field

Aspect Ratio

Camera apps