

Somaya Breis

The Camera Revolution

Just point it, shoot, and let the triple-system camera do all the tricky stuff



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Your iPhone camera is pretty good at taking photos automatically. You just point it, shoot, and the camera works out all the tricky stuff. But what is actually going on in there?

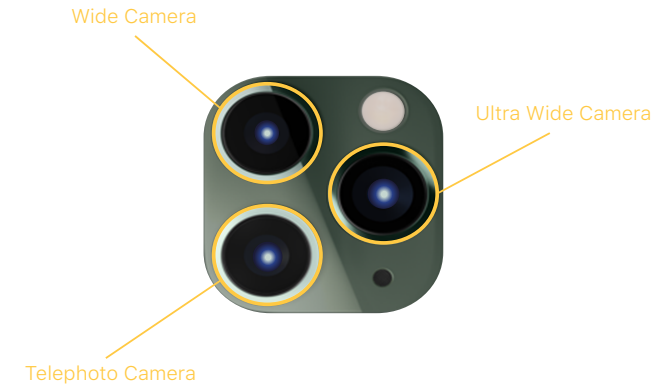
When the iPhone camera snaps a scene, it is not only optics and a photo-sensitive surface that determines the outcomes, as with conventional cameras. The device can perform many combinations of digital operations, including analysing the image data, performing algorithmic changes, connecting to other data spaces and storing image files. It is a disruptive technology not only because it has new technical features, low power complementary metal oxide semiconductor (CMOS) image sensor, solid-state data storage, multimedia and telecommunications capacities.

All these camera features have been taken to another whole new level in the new **iPhone 11 pro**. This iPhone features a transformative triple-camera system that adds tones of capability without complexity. It is the first triple-camera system to combine cutting-edge technology with the

legendary simplicity of iPhone. Capable of capturing to four times more scene, and beautiful images in drastically lower light. You now are now able to shoot the highest-quality video in a smartphone, then edit with the same tools you love for photos.

The top camera is a **Wide Camera** with a focal length of 26-millimetre, an aperture of $f/1.8$, six-element lens, optical image stabilisation, 100 per cent focus pixels and new 12-megapixel sensor. To the bottom is a **Telephoto Camera** with a focal length of 52-millimetre, a larger aperture of $f/2.0$, six-element lens, optical image stabilisation, 2x optical zoom and 12-megapixel sensor. These two cameras allow you can get close to your subject by zooming in on it, or zoom out in order to tell a story.

Last but not least the all new **Ultra Wide Camera** iPhone 11 pro lets you zoom from Telephoto all the way out to the new Ultra Wide Camera, for an impressive 4x optical zoom range. Also featuring a focal length of 13-millimetre, the widest aperture of $f/2.4$, five-element lens, 120-degree field of view, 4x more scene and 12-megapixel sensor. It's



like stepping back — way back — without taking a step. Bringing on those mountain ranges, soaring cathedrals and iconic skylines. Creating an artful perspective when you're up close, a pro technique that's fun to experiment with. This Ultra Wide Camera allows you to capture more expansive scenes even in tight spaces and landscape photography than ever before.

Let's not forget the **Night Mode**, where high tech meets low light. From dimly lit restaurants to moonlit beaches, the new Night Mode uses intelligent software and A13 Bionic to deliver low-light shots never before possible on iPhone. And it all happens automatically. And you thought your photos couldn't get any better. Next-generation Smart HDR uses advanced algorithms to finesse highlight and shadow detail in your image. And now it leverages machine learning to recognize faces in your shot and intelligently relight them. That means iPhone 11 Pro can **automatically fine-tune detail** in both the subject and the background. Even some DSLR cameras

can't do that. And the list just goes on and on ...

The iPhone 11 pro also lets you **capture videos** that are beautifully true to life, with greater detail and smoother motion. With epic processing power which means it can shoot 4K video with extended dynamic range and cinematic video stabilisation all at 60fps. A13 Bionic for real-time processing, Audio Zoom to match audio with video framing and 4x more scene with Ultra Wide. You get more creative control too, with four times more scene and powerful new editing tools to play with.

The camera was one of the most minimalist aspects of the iPhone. Now it has turned into a symbol for which model you have. Think about it. The iPhone means a camera is with you at all times. No need to worry about settings. The software does the heavy lifting while you need only delight in what you are looking at and capture it with the press of the virtual shutter button.



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