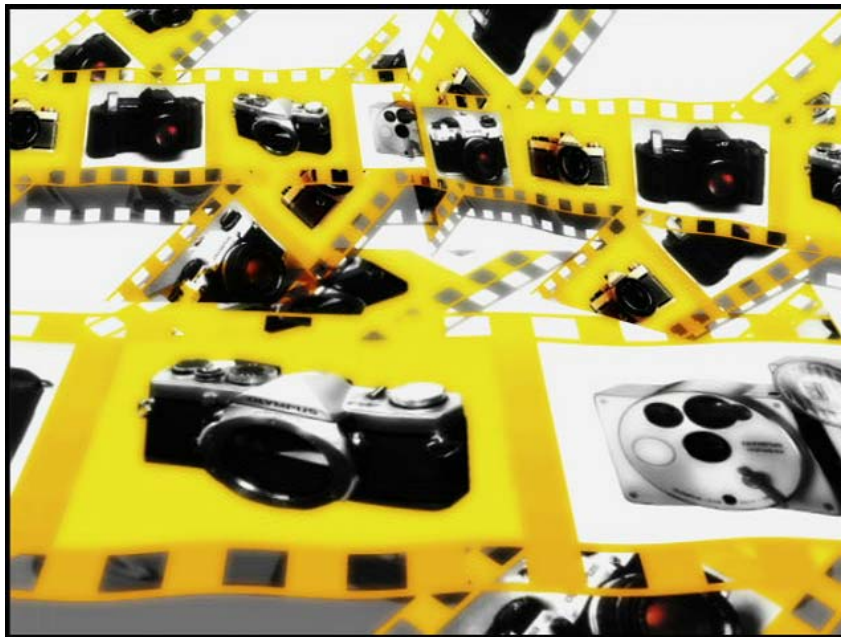


1



2



35 mm film cameras were originally developed in the early 20th century to take advantage of the 35 mm film already used to make movies. They quickly became the standard camera type around the world. Today, with the advent of the digital era, a lot of effort is being put into the development of digital SLR cameras.

3



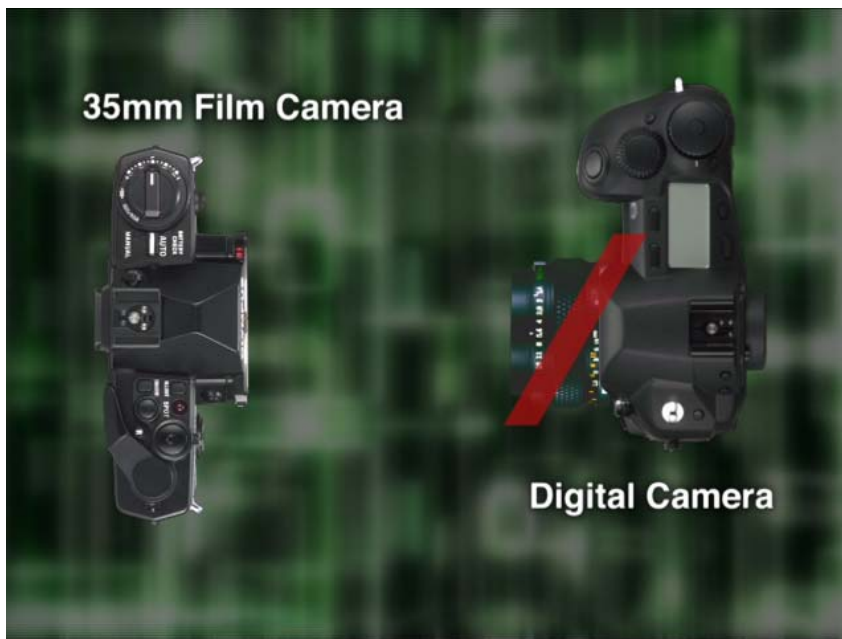
As a result, there has been a great search for the best common standard for digital SLR cameras. Here we would like to introduce the Four Thirds System (4/3 System), a new standard for digital SLR camera systems that will achieve the optimal balance between image quality, body size, and system expandability.

4



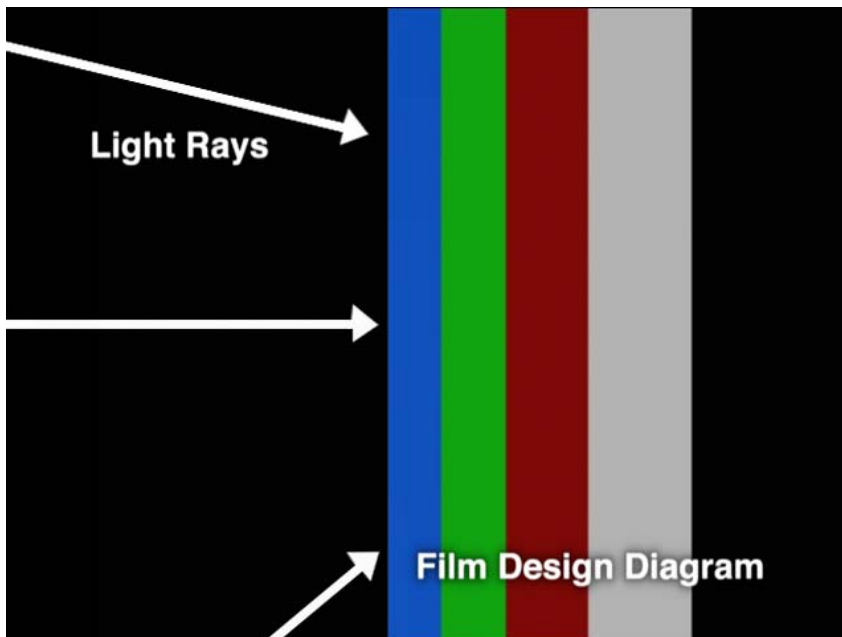
The Four Thirds System is so called because it uses a 4/3-type image sensor such as a CCD or CMOS. Its strongest feature is its ability to maximize the performance of both image sensors and lenses.

5



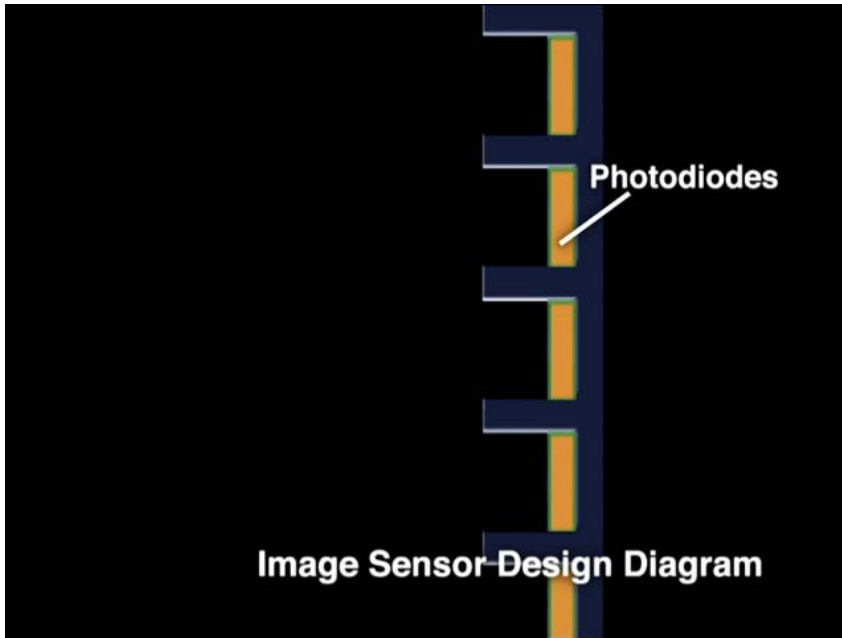
For example, digital cameras with an image sensor size equivalent to 35 mm film have the advantage of being able to use interchangeable lenses designed for 35 mm SLR cameras. However, the images produced are often unsatisfactory due to the inherent structural differences between film and image sensors.

6



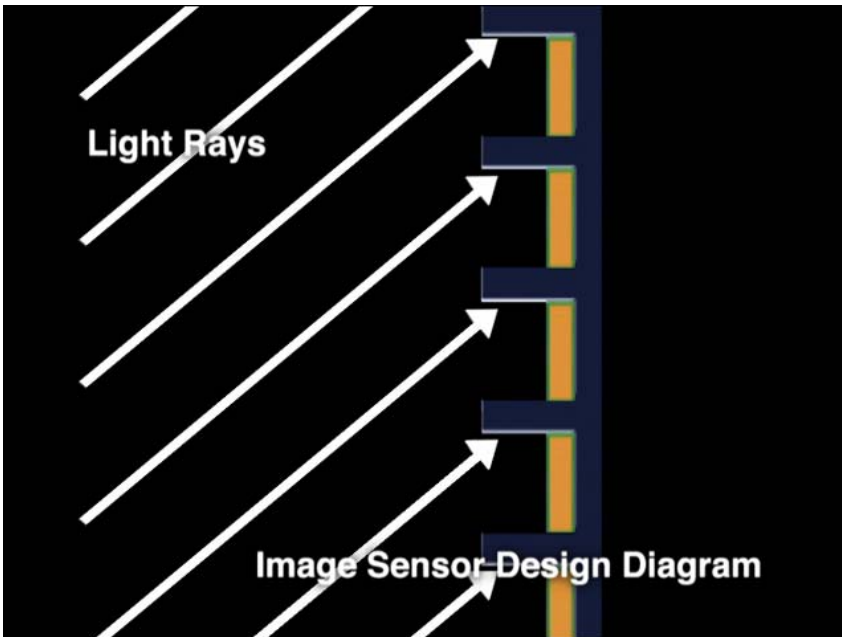
The reason is that most lenses used for 35 mm film cameras are not necessarily designed so that light hits the film from only straight ahead. This is because film can be exposed by light coming from oblique angles.

7



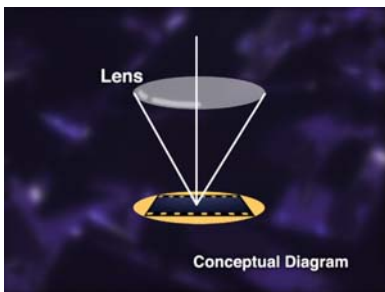
The image sensor used in a digital camera, on the other hand, is essentially a chip with pixels laid out at regular intervals on a grid, with photodiodes in the depressions inside the pixels.

8

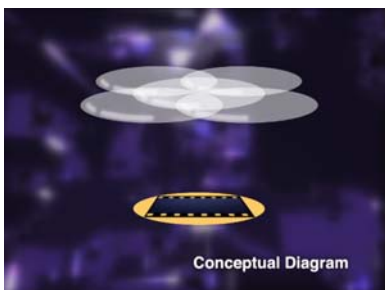


This means that light cannot reach the photodiodes effectively unless it comes straight through the lens. And that in turn means that if a 35 mm film camera lens is attached to a digital camera, insufficient light at the periphery of the image sensor can result in a dim image with inaccurate color reproduction. These problems tend to become even worse with wide-angle lenses.

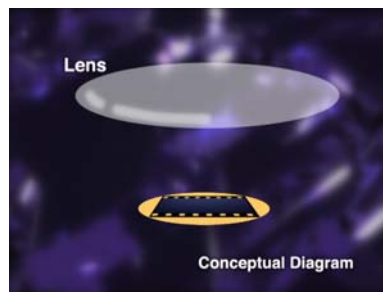
9



9-1



9-2



9-3

Lenses for digital cameras are designed so that light is correctly captured for not only the center but also the periphery of images. Thus, if lenses were designed for light to hit all the photodiodes of a 35 mm equivalent image sensor from nearly straight ahead, they would have to be enormous.

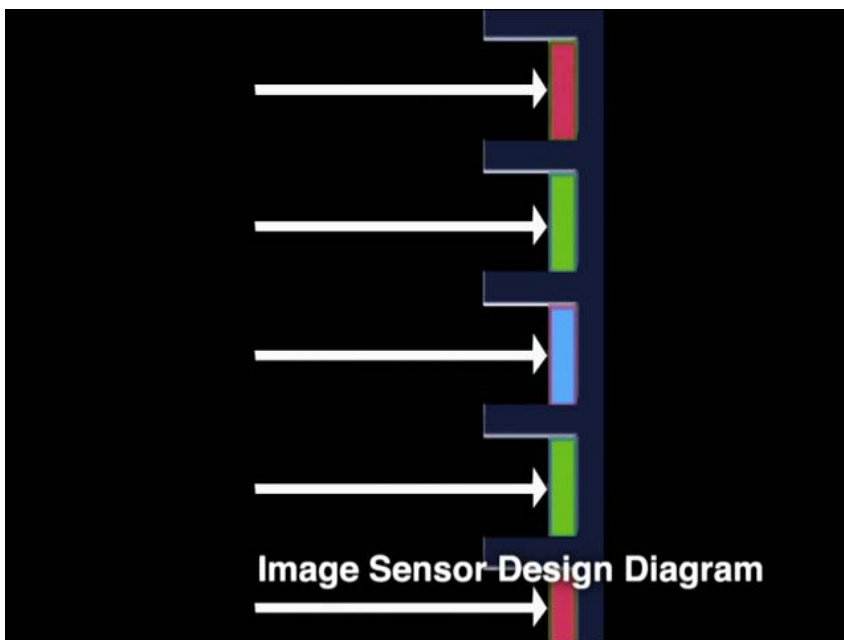


10



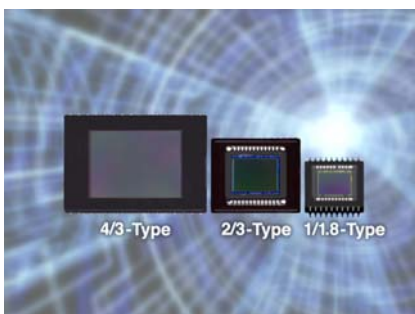
However, with the Four Thirds System, in contrast to 35 mm film cameras, the diameter of the lens mount is designed to be approximately twice as large as that of the image circle. This gives wide adaptability among a variety of image sensors and greatly expands the flexibility of lens design.

11



Thanks to this lens mount design, most light can strike the image sensor from nearly straight ahead, ensuring clear colors and sharp details even at the periphery of images.

12



12-1



12-2

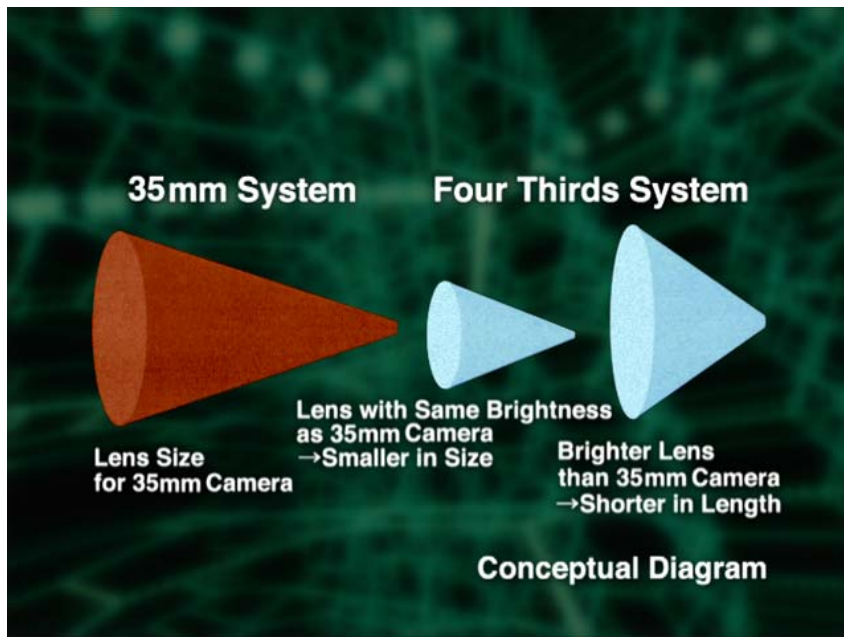
In addition, the 4/3-type image sensor has 4 to 5 times the area of a 2/3 or 1/1.8-type image sensor, giving the Four Thirds System the potential to equal or even far surpass the resolution of 35 mm film cameras.

13



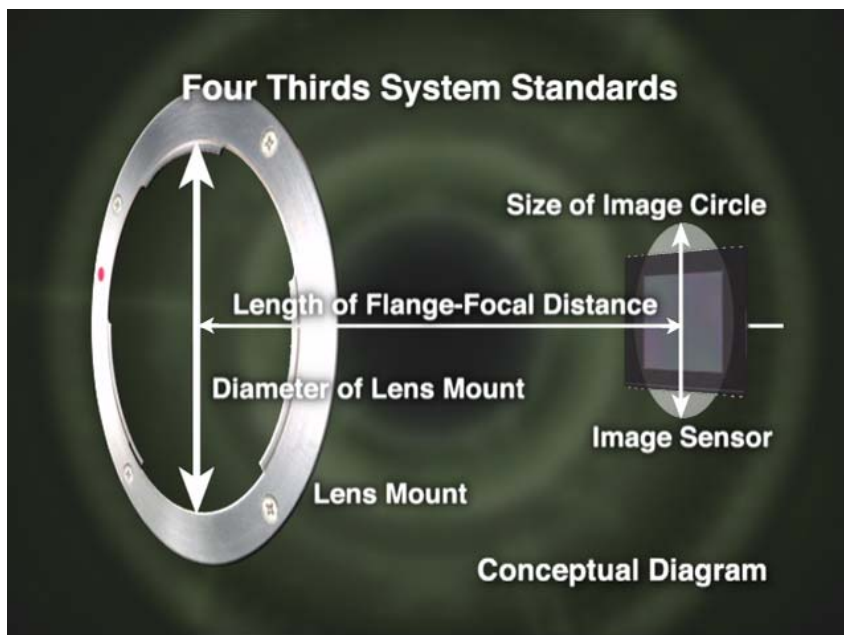
Another advantage of the Four Thirds System is that its image sensor will allow the downsizing of camera bodies and lenses. For example, since the required focal length is half that of 35 mm film cameras, a 600 mm telephoto effect can be achieved with a 300 mm lens, meaning that the entire lens can be radically reduced in size.

14



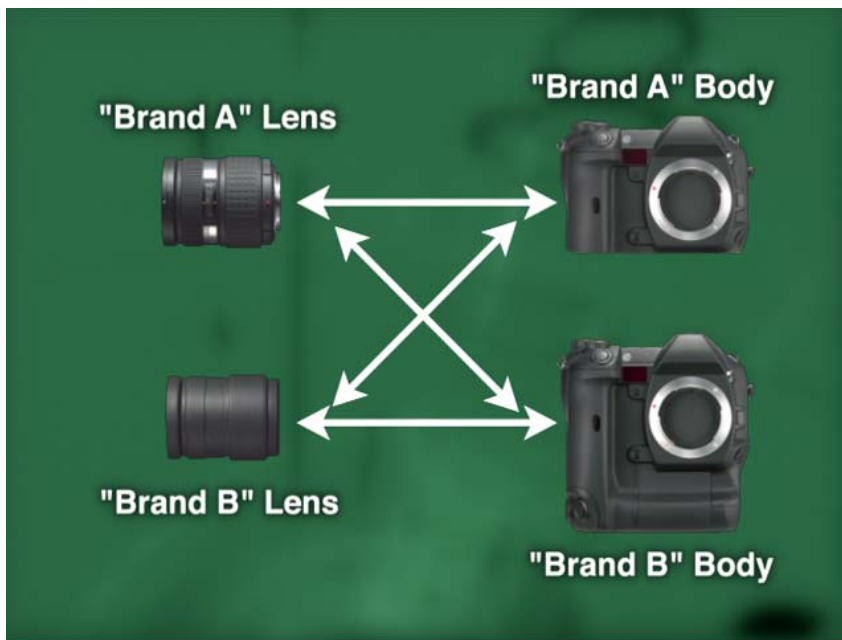
Moreover, since the effective aperture of the lens can be made smaller compared to that of 35 mm film cameras, bright lenses can consequently be made much shorter in length. This will give users more flexibility when shooting in low-light conditions or with a high-speed shutter.

15



The Four Thirds System standardizes the diameter of the lens mount, the size of the image circle, the flange-focal distance, and more.

16



The Four Thirds System is an open standard. This will allow for far greater compatibility, meaning that consumers will be able to freely interchange bodies and lenses produced by different manufacturers adopting the Four Thirds System.

17



We, the manufacturers who have approved the Four Thirds System, are confident that this will soon be established as the premier standard for digital SLR cameras. So keep your eyes open. The Four Thirds System will soon be coming to a camera near you.