Beginners guide to the EOS 5D Mark IV

Especially written for Canon EOS users

A simple, modern and non technical guide for those very new to photography, or are self taught to understand the basic operation, exposure settings and basic exposure modes on the 5D Mark IV

Written by Nina Bailey
The 5D Mark IV is one of the most advanced models within the Canon EOS range. Aimed at advanced photographers this fantastic model can be a massive leap to those who have only used very basic models and have only a limited understanding of photography. One of the problems with the 5D Mark IV is that it lacks most of the basic modes, which offer a more automated operation of the camera. This can present a lot of problems for those that have upgraded from more basic models in the range, who have been used to relying on the automated modes. This book has been written to fill in the gaps in your photographic knowledge to allow you to use the EOS 5D Mark IV and to start shooting great images with it.

This book has been designed to compliment the other two books that I have written on the EOS 5D Mark IV, the Understanding the EOS 5D Mark IV which looks at the operation of the camera, the controls within the menu system and the main set up of the camera for general photography. This then leads onto the Mastering the EOS 5D Mark IV which looks at the more advanced features on the camera including looking at how the camera can be customised and the focusing settings that are needed for shooting action images. Throughout the three books the overlap has been kept to a minimum, though inevitably there are a few things that need to be included in more than one book.

Throughout this book I have included a few practical assignments that will allow you to go out and put into practice what the book is explaining.

I hope the book enables you to get shooting some great images with your EOS 5D Mark IV.

Written, designed and images by Nina Bailey

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Nina started her career in the retail photographic sector and then moved to Canon UK where she had a successful nine years looking after training, exhibitions and marketing both in the UK and also within Europe. This gave Nina an unrivalled knowledge of not only the Canon EOS system but also how to develop and enhance the skills of photographers of all ability levels.

Nina started her own business in 1999, concentrating on training for amateur photographers. She is also at the forefront in developing and producing the new Online EOS Training Academy. As well as developing the online training academy and direct training of photographers, Nina is a prolific professional photographer producing images not only for the EOS Training Academy but for a variety of outside organisations. In 2014 Nina started producing her own range of ebooks to bring photography training to an ever wider audience.

Nina started taking images when she was very young and is still a very keen photographer both professionally and personally. Nina loves travel, landscape and wildlife photography and still shoots commercially within the travel photography market. Nina also leads photographic trips from time to time.
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Part 1 - Getting started
The EOS 5D Mark IV is a great EOS model, however lacking a lot of the easy operation modes of the more basic models, it can be a complex camera on which to learn photography. It has a mode, Auto+, that will allow you to shoot some subjects with the settings remaining under the camera’s control. This gives you chance to become familiar with your lenses and what they do and understanding the lighting that will give you the best images, before you need to start understanding some of the settings used within photography.

The EOS 5D Mark IV is one of the more advanced models within the Canon EOS range. It has a lot less automation, than the models below it and therefore requires the user to move onto the creative modes much earlier than we would normally be recommending on the models that feature a much wider range of the fully automated modes.

Photography has always had a steep learning curve, and in this modern digital age this has become steeper, as there are now far more controls on the camera. On this model it is going to be necessary to take control early on, as the camera was designed assuming the users where going to have a good knowledge of photography. I have tried to break the book into sections that allow you to get some great results and build your confidence using the Auto+ mode, before tackling the areas that are by nature more technically challenging.

I always try and teach photography in a very modern way, starting off by taking images using the basic modes and building confidence that you can get great images without needing to take control of everything on the camera. Then as time progresses and you start to shoot more challenging areas, it becomes time to start to use the camera on modes with more controls, where more understanding is needed.

Far too often I come across photographers that are the verge of giving up photography as they have been told to shoot manually because a photographer, whose techniques are well out of date, has told them that its the only way to shoot.

It’s far from the truth as most of the images you will see in this book are shot on one of the camera’s automatic or semi automatic modes. A handful will be shot manually as in those situations it may be the only way to get consistent results, but those occasions are few and far between.

I originally learnt on a fully manual camera, but today choose not to shoot that way, as most of the time the camera makes the same decisions as I would and usually a lot quicker.
Understanding the terms used in photography

It is impossible in photography to discuss any part of modes on the camera without using a few terms, which many might consider to be technical jargon.

So I am going to explain in a simple way what the key terms mean and basically how the are affecting the image we shoot. I will look in more depth at these later in the book in the section Moving on, as once you start to utilise the creative modes you need a more in-depth understanding of how to use them.

In this first part of the book it is only necessary to have a basic grasp of what they are controlling and accept the fact that the camera will be setting all of them for you. Be assured that the camera actually does a very good job of choosing the settings, but what is interesting in the more basic mode is to actually look at what the camera is choosing and learn from it, the settings that are needed in various conditions.

The camera’s exposure mode dial is actually split into two halves as well. The dial top right shows the Basic zone mode of which there is only one on this model. This is designed to make the camera as simple to operate as possible, yet still allow a good range of subjects to be tackled. There are lots of safety features present when this mode is in use to prevent you making errors that will affect the images that you are taking.

The bottom right hand dial shows the more advanced Creative zone modes, some of which I will be looking at in the second part of the book.
What ISO means and controls

ISO - Changes the sensitivity of the imaging sensor to light

ISO stands for international standards organisation, a meaningless term. If you were born before the 1970s then you may have come across this setting under a different name. In the UK it was commonly called ASA (American standards association) and in Germany and many of the eastern block countries it was called DIN (Deutsche Industrial Norms).

The only standard used today is ISO, the difference is that today it is produced on the imaging sensor electronically, and therefore can be varied frame by frame whereas on film it was set by how the film was manufactured and so the film had a specific ISO speed.

The ISO allows you to shoot in a very wide range of lighting conditions. The range on the 5D Mark IV in the Auto ISO settings goes from 100 ISO up to 32000 ISO as a default. In bright light you will find the camera choosing the lower settings 100-400 ISO and the light levels get lower then the camera will choose higher settings.

As the ISO goes higher there is a small drop on quality for each increment that it goes up. From 100-6400 ISO there is no really visible effect on the image. Above this the image can start to look slightly grainy if you zoom into it, but the printed quality will still be very good. However, the quality at the high ISO settings far exceeds anything that was possible with film and so even the very highest settings can be used to give great images. The images to the right were taken with the camera choosing the ISO to use for the light levels they were taken in.
What shutter speeds mean and control

**Shutter speed - changes how long the light enters the camera for**

The shutter speed is one of two key controls that affect the brightness of the image that you take, better known as the exposure.

The shutter speed has settings from 30 whole seconds up to 1/8000th, though on the fully automatic mode these extremes are seldom used.

The shutter speed has two things that it is used for within photography, the key one is for preventing camera shake occurring. The camera will always try and achieve a shutter speed that will prevent camera shake occurring in the Basic zone mode.

Camera shake produces images that look blurred due to the shutter speed being too slow for the lens that is being used. It’s a very common problem for beginners who often underestimate how low the light actually is.

The shutter speed becomes important in action photography where taking the shutter speed up to its higher settings will freeze action, but this has to be done using the creative modes on the camera as the Auto+ mode will seldom set a shutter speed high enough to freeze action subjects successfully.

On the basic zone mode, the camera will think about handholding for you automatically which will prevent most camera shake occurring. Most of the time it does this by increasing the ISO setting it is using, but it can also turn on the built in flash to provide light in the very lowest of lighting conditions.
What the aperture does and controls

Aperture - The opening in the lens that controls how much light enters

The aperture is the second of the key controls for how bright the image is, or exposure as it is correctly known.

The aperture is basically the opening in the lens. It’s the hardest of the controls to understand due to the numbers that are used to describe it. The larger the opening, the nearer to 0 the number will be. The aperture range you have available depends on the lenses you have. Most zoom lenses have a range of apertures from f4 which lets in the most light with settings including f5.6, f8, f11, f16 down to f22 which lets in the least light.

The camera tends to keep the aperture towards the wider settings of f5.6 or f8 in the basic mode.

The aperture also has a modifying effect on something called depth of field. I will look at this in more detail later, but this is how much is sharp in the images that you take. That said, the thing that will have the biggest effect on things such as getting good background blur will be the lens you choose to shoot with and not the aperture which is being used.

Out of the three main controls, ISO, shutter speed and aperture, the aperture is the least important setting to worry about, especially when starting out in photography. There is a relationship between the three settings that I will look at later, for the time being the camera will look after that for you.
What the lens you use controls

It’s commonly said that the D-SLR or Digital Single Lens Reflex camera, of which the EOS 5D Mark IV is a great example, will take much better images than the compact models in the market. Although this is true, what is often not explained is why this is the case. The thing that sets cameras such as the EOS 5D Mark IV apart is the range of lenses that they can be used with it.

The camera is most commonly supplied as a body only, though a number of options with lenses are available. There is a EF 24-105mm f4L IS II USM lens available and this is often offered as a option with this model.

This camera is mostly seen fitted with the L series lenses, which do offer stunning optical quality and the ranges offered by the lenses are designed to couple with the full frame models. This model uses a full frame sensor, which is the same size as a frame of 35mm film.

There is a reality that needs to be faced with this type of camera, which is the outfit will not fit in a pocket like a compact. The outfit will be bulkier and heavier to carry. However, the quality of the images achievable will be better and a much wider range of images can be taken due to the greater lens choice that you have.

A good second lens to start off with is the EF 70-300mm f4-5.6L IS USM lens or the camera is often seen used with the new EF 100-400mm f4.5-5.6L IS USM II which works very well with this particular model. Both of these give a better range to shoot with and will allow a much wider range of subjects to be successfully tackled.
I am trying to avoid as much jargon as possible in this book, however, lenses are described in a very specific way and so I am going to look at what all the description on the lens actually means in simple terms.

The most important thing that describes a lens is its focal length. This is a number that is shown on the lens and it has mm after it. If there are two numbers, then the lens is a zoom lens and in the example shown on the right has a range starting at 100mm and going up to 400mm.

Zoom lenses are the most commonly seen in use today as they are very convenient to use and prevent having to change the lens too frequently.

If there is only one number shown then it is a fixed focal length or prime lens, which does not zoom, as in the example below. In this case the lens is a 50mm lens. There are advantages to the fixed focal length lenses.

They generally let in more light, are often lighter than the equivalent zoom lens and offer slightly higher quality. However, one of them is you need more of them, which makes the outfit larger and heavier to carry around.

For most amateur photographs starting out, the lenses of choice will be a zoom lens for the greater convenience of use and also to allow you to change the framing of the shot.

The lenses I mention on the last page a 24-105mm and a 70-300mm lens will work well for most newcomers to photography and allow you to gain experience without spending a fortune on lenses.

As you understand more about photography, many photographers start to specialise and this can lead to wanting more specialist lenses and in some instances more specialised cameras. It is wise not to spend too much on your lens outfit until you start to understand the lenses in more depth and can make a more informed choice as a result of that understanding in what you need for the subjects that you shoot.

I have a very wide range of lenses, but never take all of the lenses with me at one time, I tend to choose the equipment that I am using for the subjects that I am going to shoot.
Lens jargon and terminology

The focal length of the lens tells us the type of lens that it is and the effect that it will have on the image. Lenses can be broken down into three basic groups

**Wide angle:** These get more into the picture than we naturally see with the eye but they also make things look further away and smaller and so we would not use these for wildlife or most action photography. Focal lengths from 35mm down to 24mm would be considered to be a wide angle focal length. Wider than 24mm is considered to be ultra wide.

**Standard:** These are lenses that give the same width and appearance as we see naturally with the human eye. However, as they do not make the subject look closer they are good for travel and landscape photography. Lenses from 36mm up to 55mm are generally considered to be a standard focal length.

**Telephoto:** These are the lenses that are used for wildlife, action and sports photography as well as many other things. They capture a narrower area than we naturally see with the eye and make the subject appear to be a lot closer to us. Telephoto lenses technically start at 56mm but it is not until 200mm and longer that they start to make a big difference to your images. **Telephoto lenses** can be split into two groups. The normal telephoto lenses have focal lengths from 56mm and go up to 300mm.

You then have the **Ultra telephoto lenses**, these range from 400mm up to 800mm in the current range. The word ultra also seems to mean expensive as there are none of these lenses that will be found under a thousand pounds and many will be much more than that.

The images above are taken from the same spot but with the lens focal length being changed between each shot. As the focal length gets higher you can see a smaller part being captured. The 50mm image shows the scene as it looked to the eye.
Lens jargon and terminology

This shows you if the lens is an EF or EF-S type. This will tell you what the compatibility of the lens is. Only the EF models fit the 5D Mark IV.

EF actually stands for Electronic Focus.

This tells you the focal length of the lens. This lens goes from 24mm which is wide angle up to 105mm which is telephoto and in between those two extremes covers the standard focal lengths as well. These days it is quite common to cover a range of focal length types in the one lens to make it more versatile.

This is the aperture range, however, what it tells you is the widest aperture that the lens features. I will explain more about the aperture shortly.

This indicates the filter size that the lens takes.
Explanation of sensor size

Within the EOS range there are now two types of sensor that can be found in the cameras. The sensor is effectively doing the same job, capturing the image as the film used to. The EOS 5D Mark IV uses the larger of the two sizes, the full frame sensor or 1.0x as it is sometimes called. This has lots of advantages for the more traditional photographer as the lenses still do the same as they did with film cameras. This is 24mm x 36mm. The models that have these are mostly at the more expensive end of the range and are generally preferred by professional photographers. They are also much larger and heavier as a result of having the larger sensor.

When digital cameras first appeared they initially only used the smaller sensor. This is approximately 22mm x 15mm in size. The 1.6x is often referred to as a magnification factor, which is incorrect, rather the image is cropped by a factor of 1.6x when compared to the image given by the full frame sensor.

The image to the top right shows the difference that is made by simply changing the camera body on the same lens on the area that is being captured. The area captured is smaller, effectively “cropping” the area that is being captured by the camera.

One thing that you can see from this image is that although wide angle lenses perform better and give a wider field of view for travel and landscape scenes, the larger sensor has the opposite effect when shooting things with a telephoto lens, requiring a much longer focal length to fill the frame as much. This also affects those who shoot close up and macro images as these do not fill the frame as much and so require higher magnifications to be used to fill the frame.

The EOS 5D Mark IV is only compatible with Canon’s EF range of lenses, and the camera mount shown to the right has only a red dot which signifies this. Cameras that are compatible with the smaller and lighter EF-S lenses would also have a white square on the mount to the right of the red dot.
Basic camera layout
It is important to understand the controls on the EOS 5D Mark IV camera, however in this first part of the book, there are a lot of controls that will not do anything as you do not have access to those overrides in the mode that we are looking at.

**OFF/ON switch** - this is where the camera is turned on and off.

**Shutter button** - This has a two stage pressure to it. The first half pressure activates the focusing and exposure systems on the camera. When photographing a static subject the Auto+ mode allows the focusing to be locked and then the image can be re-framed whilst still holding the shutter button half down and then the shutter button is fully depressed to take the image.

**Main dial** - This is used to select items in some menus, and for general navigation in some of the options. Within the Auto+ mode it is not used as much as when working in the creative models.

**Mode Dial** - The 5D Mark IV does not have all the more basic modes that are found on the lower level models. Its does have an Auto+ mode, but controls within this are limited. This makes the camera much harder to use for the novice as they will be forced to use the Creative modes much earlier than on some of the other EOS models in the range. The normal main exposure modes of P, TV, AV and M are joined by a specific B mode and custom mode options that can be programmed by more advanced photographers.

To prevent the mode dial getting moved by accident, there is now a lock button in the centre of it that
Top plate

needs to be depressed before the dial can be turned.

**LCD top display** - This is used when setting things using the function buttons, which do not do anything in the Auto+ mode. However, the display does not give as much information as the Q screen and is much more difficult to read. There is a light button that can be pushed by the side of this that makes the panel light up to see it in dark conditions.

**Lens release button** - this button needs to be pushed to take the lens off the camera. When fitting a lens always make sure that it has clicked firmly into place, or it could drop off when the camera is being used.

**Diopteric adjustment dial** - this can be rotated to adjust the eyepiece to be correct for different eyesight. This has an adjustment range from -3 up to +1. The camera comes out of the box set to -1 as standard. The easiest way to set it up is to get the camera to focus on something and then look through the viewfinder and turn the dial till the image looks at its sharpest. It can also be set by looking at the display at the bottom of the viewfinder that appears when the shutter button is part depressed.
The rear of the camera has a lot of buttons on it but a large amount of them are not used a lot of the time when in the Auto+ mode.

**Menu button** - this is one of the most important buttons on the rear of the camera as it enters the menu system. It is also pressed to go back at any time in the menu to the former screen. The menu system has less functions when you are in the Auto+ mode than when using the creative modes.

**Info button** - each time this is pressed this changes what the display on the rear of the camera is showing both in the normal shooting mode, when using live view and when playing back images. If the screen is not displaying as you want, simply keep pressing this button until it comes round to your preferred display.

**Magnify button** - this works when playing back images and it allows you to zoom in or out to see details within the image or to see how sharp it is. Pressing the button zooms in to a set amount and then turning the main dial allows you to zoom in and out from the image. This can be one of the most annoying changes if you have used an EOS model before as it takes a lot of getting used to.

**Playback button** - this is used to playback images that you have taken.

**Erase button** - this allows you to erase the image that is currently being displayed.
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Nina

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