

Choosing a Camera

A few times in my past I was asked "what camera to choose and what to look for in the camera". I foresee more of such questions in my future, so to make our lives easier, here is the article that covers most of those choices and concerns. I hope it will help you with the choice, though it would definitely create more questions. So here it comes.

First, there are several things you have to consider before buying a camera:

- What you want to shoot, what kind of photography you are interested most
- How strongly you want to pursue the path of photography
- What kind of budget we are talking
- How often you would want to upgrade your camera
- What is your current level of photography skills

Those were somewhat general questions and they help decide what level of camera to buy - pro, prosumer or snap and shoot. For example if you want to shoot wildlife and birds, you have to think how to get the longest telephoto lens and consider money and quality of the lens. If you are interested in insects and small creatures of the world (macro photography), there are as well special lens, cameras and flashes to get the best results. Or maybe you are going to be a portrait photographer, thus there the whole studio to create, not just a camera.

Your intent to take pictures matters as well. If you already made up your mind then you can invest into pro camera, quality glass and many helpful pieces of equipment. But if you are just trying the waters, then something simple and affordable would be a better choice. Affordability usually one of the primary issues to consider, quality photography equipment usually quite expensive and could cost you "arm and leg". For instance, some good and powerful telephoto lens alone could cost you a 5-10 thousands dollars. And there is an issue of upgrading the camera and keeping up with the trends. In this quickly changing market new cameras sprout almost every month, professional gear changes less often, but still in two years there will be a camera twice better then yours. And even if you have a strong desire to learn and do photography, and you can afford the best gear out there, you may get lost and quickly frustrated by all those details that you have to control with a professional camera and gear. So, first think where you want to go and how far before taking the first steps.

Well by now you probably have some idea what you want to do. So we can think about the camera itself. I am not the greatest expert on the cameras; I know something about Canon pro and prosumer cameras, about some lens and other gear, but not much. My interests lay mostly in composition and post-processing of the images, not in the hardware. Anyway here are the next things you have to think about:

Snap & Shoot cameras

- Not expensive
- Portable and lightweight
- A lot of noise at high ISO (because of the size of the chip)
- Glass varies from poor to OK
- Image quality from OK to good (with low ISO)
- Have wide range zooms (which degrades the quality of the lens)
- Startup time (for the camera) could be a killer (up to 2-3 seconds)
- You need AA/AAA batteries to keep the camera alive
- Focus is OK, but usually with a single focus point (in center) - no focus (without flash assist in low light)
- New cameras pop up on the market very fast

Prosumer cameras with interchangeable lens

- You can upgrade lens
- Could be expensive with a good lens
- You choose lens (of a good quality) that suits your particular needs
- Give you possibility to control camera modes and still have automatic modes (e.g. portrait, sport, landscape, night scene, etc.)
- Allow for growth and upgrade (in terms of lens; and you keep the lens when upgrade the camera)
- You can buy a pro lens to use on the camera
- Crop factor will change the usable area of the lens (1.6 crop factor makes 50mm lens into 80mm lens, because the chip is smaller than regular 35mm frame)
- Crop factor will dim and reduce the view in your camera viewfinder
- Usually the quality of the image is almost the same as with pro cameras
- High ISO has much lower noise (sometimes it's almost as with pro cameras)
- Image quality is very good (sometimes in controlled environment it's not worse than with pro gear)
- Focus is good, but may not work in low light conditions (a few focus points)
- Startup time usually is very good
- Battery (rechargeable) life is good
- You may want to upgrade every 2-3 years

Pro gear

- Very expensive
- A pro camera with a good telephoto lens could weight 6-10 pounds.
- You get ruggedness and quality
- Could be even weather proof
- Everything is about speed and quality
- A lot of controls to configure the behavior of the camera and no automatic modes
- Crop factor is smaller or non existent.
- Focus is instantaneous and works in low light conditions (has a lot of focus points)
- Batteries (rechargeable) are great - sometimes up to 2000 exposures
- Image quality is great
- Noise non existent or very low at high ISO
- A great choice of lenses to buy
- Upgrades could be done after 3-4 years (if at all)

As you see there are a lot of things that make the choice of a camera. And I will try to help you decide on those. First don't expect good shots from snap&shoot camera in low light conditions. It will use flash and the light will be flat, or you will increase ISO and the noise will be very prominent. Snap & shoot cameras are for good lighting only I would say, such as outside on a sunny day (may be even cloudy day). Anything else and you will have problems, if not with the noise, then with the light from your flash, or blurry image, or red eye, or something else. So I would not say that such type of camera is the best choice for a photographer (not a snap shooter). I wouldn't recommend buying one of these, you would want to upgrade in a few months and would want much more from a camera. Pro-sumer cameras are much better. Usually they allow changing lens, if not - better to think twice. The ability to swap lens gives you several advantages: upgrades, better lenses that work for specific situations. It means that you can be a macro shooter one day and wildlife/bird photographer the other day. As well when the lens is designed for specific needs they have much better quality than regular zooms. A note: the wide the range of the zoom, the poorer the lens. The best lens - is with fixed focal length (e.g. 50mm f1.4, instead of 28-100mm f3.5-5.6). Here you trade usability against quality.

Prosumer cameras usually are the best choice for a starting photographer (for the one who really wants to grow and learn). My recommendation would be Canon 20D (I, myself, want to by this one as the backup body). But it could be too much for your budget, so you may want to consider Canon Rebel 350X, it's somewhat simplified version of 20D. I suggest you to look at www.dpreview.com with a lot of reviews of different digital cameras. Meanwhile there are the following trends - Canon is the leader on the market, followed by Nikon. Canon has great

cameras and lens, cameras priced similar to Nikon, but Nikon has cheaper lens of the same quality. And Canon produces better cameras first (most of the time). If you choose one brand, you have to stick to it for a long while; the lens from one manufacturer will not fit to cameras of the other. There are some exceptions - such as various adapters and manufacturers that produce lenses with mounts for various cameras. But generally, you hooked on a single brand and wouldn't want to buy those adapters.

If you consider prosumer camera then look for best features that suits your needs right now and for the next year or two. Most probably later you will want to upgrade it, so don't be too obsessed with the cameras features. As well in 90% you won't use most of them. When I wanted a camera, I looked for: noise, focus speed and points, battery and crop factor. Those were the main features, and as you see there is no mentioning of image quality. Usually the quality is pretty high for most of the cameras, and you would be satisfied with almost any of those. When it comes to buy a camera - better to buy just the body without the lens. Usually the lens that goes with the camera is of a poor quality. You better spend the money on a good lens that fits your needs. And that's another journey of search for a good lens. One more thought - lately there is a trend to move from CF cards to SD cards, which are smaller and could be even faster, that's why you have to consider it for you future upgrades - you wouldn't want to throw away you CF cards.

Pro-gear... Ohh, that's a great thing to have, it combines quality and usability. But prices are very high. So, I wouldn't advise you to buy one right away - play first with a prosumer one, then you would know what you want from a camera and would know how and what to choose. You may want to check out the following articles to get other perspectives on the same topic:

- [How to Choose and Buy a Digital Camera](#) by Ken Rockwell
- [10 Tips For Choosing A Digital Camera](#) at Outdoor Photographer
- Or simply search at Google with words "[How to choose camera](#)"

What about a film camera? Well, their time is almost gone. In terms of quality there is only one advantage left of film cameras over digital - resolution. But you better read the [article](#), which will tell you more, and would save me some time :) This article compares pro-gear of both worlds, but it is still true for prosumer level.