

Camera Settings

Modern cameras including those in mobile phones work fine in Auto but sometimes the results may not always be what you want. The aim of this article is to explain some of the settings on your camera or phone and encourage you to change them, giving you more creative control over your photo taking.

Most cameras have very many settings so we'll just concentrate on a few basic ones, common to most.

Exposure

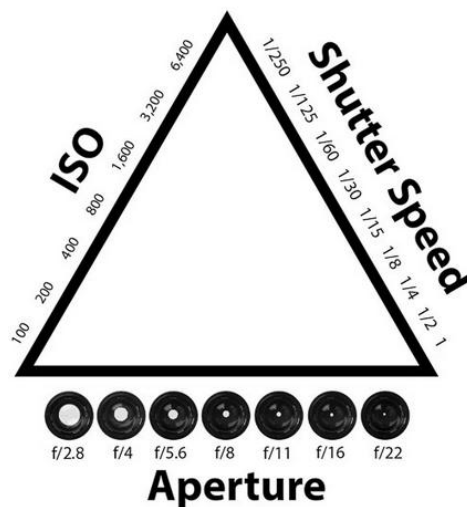
This is the control over the amount of light reaching the camera's sensor so the image is not under or over exposed. This can be controlled by changing a combination of three settings: Aperture, Shutter Speed, and ISO.

Aperture – A wider aperture (e.g. f/2.8) lets more light in through the lens onto the sensor, a narrower one (e.g. f/22) reduces the amount of light. With wider apertures less of your scene will be in focus (due to shallow depth of field) and you need greater focusing accuracy. The **Aperture Priority** setting allows you to control the aperture and the camera will alter the shutter speed to maintain a correct exposure.

Shutter Speed – A slower shutter speed (e.g. 1/15th second) allows more light to reach the sensor than a faster one (e.g. 1/1000th second). A slow shutter speed will mean moving objects may be blurred (but you may want this as an artistic effect). Use the **Shutter Priority** setting to control the shutter speed yourself – the camera will alter the aperture to maintain a correct exposure.

ISO – The higher the ISO number the more the camera amplifies the signal generated from light falling on the sensor, allowing you to take photos when there's less light. A low number (e.g. 100) has less amplification; a higher number (e.g. 6400) has more, but this will generate more noise in your image.

These settings are all inter-related – if you change one you'll have to change one of the others to achieve a correct exposure. The exposure triangle, shown below, shows their relationship.



(Exposure triangle illustration from Photography Life (photographylife.com))

Setting your camera to **Manual** gives you full control of all the exposure settings.

Metering

To measure the amount of light in a scene and calculate the exposure settings required most cameras incorporate a light meter that takes an exposure reading when you press the shutter button. There are essentially three types of metering that you can choose. Note that different camera manufacturers may have alternative names for these.

Evaluative or Average – Camera meters for the whole scene making allowances for light and dark areas.

Partial or Zone – Camera meters from an area at the centre of the screen.

Spot – Camera meters from a specific spot on the screen.

Focusing

You can take control of the way your camera focuses by choosing the way it does so. Different camera manufacturers may have alternative names for these.

Spot AF – Camera focuses on one specific point and ignores other areas of the screen. Precise, but becomes tricky with fast-moving subjects.

Expanded AF – Camera concentrates on a specific point but will also pick up an area around the point.

Zone AF – Camera focuses on the nearest subject within a large area of the screen. Useful setting if your subject is off-centre but this setting may cause the camera to focus on something unwanted.

Tracking AF – Camera will pick up and track subjects that move through the focus area. This is the ideal setting for photographing moving subjects like sports and wildlife.

Back Button Focus – Focus by pressing the AF-ON button rather than using the shutter button.

Drive Mode

This setting controls how many shots are taken when you press the shutter button.

Single Shot – Only one shot will be made for each shutter button press.

Continuous Shooting – Camera will continue to take shots for as long as the shutter button is pressed.

Self Timer – The camera will delay taking a shot for a few seconds after the shutter button is pressed.

Conclusion

The above is a fraction of the settings available on most cameras. Check your camera's manual or the plethora of guides available online, e.g. YouTube, which will explain in detail what each one does.