

Naas Photography Group

Basic Terms and Modes Workshop

4th of February 2014.

Sensor :This is the electronic device in your camera that captures the photograph you take. This replaces the film of the old cameras.

Sensors are made of pixels. In general the more pixels a sensor has the more detail will be captured in the photograph. When looking at camera specifications you will see 12megapixels, 18megapixels, 21megapixels etc.

Shutter (Speed) :

The shutter is the curtain in front of the sensor that moves when you press the button to take the picture. This allows the light to fall on the sensor and that is how the image is captured.

Shutter Speed is the setting on how fast the shutter opens and closes. It is measured from fractions of a second up to seconds. A fast shutter speed (1/500th sec) is usually used to take photographs of fast moving events such as sports while a slow shutter speed (1/25th sec) would be used for landscapes or where the light is low.

Aperture :

This is relevant for DSLR cameras with exchangeable lens.

Inside a lens is a ring that you can adjust to let in more or less light. Adjusting the aperture can change how a picture looks, how much of the picture is in focus. Each setting on the aperture is referred to as an f-stop (f5.6, f6.1,f8). The smaller the number, less of the image will be in focus.

ISO

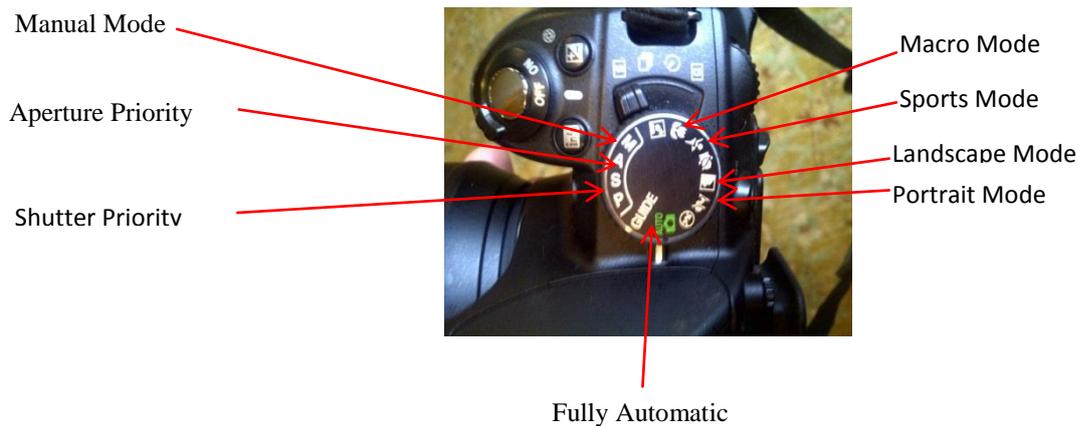
In digital cameras the sensor can be adjusted to work with different levels of light from bright midday sunlight to night shots. ISO is the measure used from 100 up, doubling each time (100, 200, 400, 800). The higher the number the darker the scene you can photograph.

There is a disadvantage to using the higher ISO that makes your photographs 'grainy' but we will cover this on a more detailed workshop.

Camera Modes

When you fully develop your photographic knowledge you will want to control all the settings on the camera yourself so you can capture exactly the image you want.

To help photographers starting out all digital cameras come with a fully automatic mode, most cameras have a range of preset modes and then DSLR cameras have manual settings that give the photographer complete control.



Fully Automatic Mode

This is the easiest mode. The camera will analyse the scene and choose what it thinks is the best settings. In general the photographs will be fine but look average.

Portrait Mode

This setting is for taking photographs of people (1 or 2). The settings will attempt to blur the background, and highlight skin tone colours.

Landscape Mode

This setting is for taking photographs of mountains, sea shores, outdoor scenes. The settings will attempt to have everything in focus and set the colours to highlight the greens/blues.

Sports Mode

This setting is for taking photographs of fast moving events/objects. The settings will attempt to freeze the movement in the photograph with a fast shutter speed.

Macro Mode

This setting is for taking close photographs of small things such as flower, insects etc.

Shutter Priority

This could be called a semi-manual mode. You set the shutter speed and the camera will set the aperture to ensure good exposure.

Aperture Priority

This could be called a semi-manual mode. You set the aperture and the camera will set the shutter speed to ensure good exposure.

Manual Mode

With this mode you set both shutter speed and aperture to control how the image is captured.