THREE LITTLE WISHES PHOTOGRAPHY

Using Flash in Photography

Most people using flash in a dark low light environment get variable and often disappointing results. A portrait subject maybe 'washed out' and have dark shadows behind them.
Many portrait subjects find themselves looking terrible in photos of themselves and wish the photographer could do a better job.
The photographer also wishes the camera/flash would do a better job.

With the following notes we can enlighten you to very simple guides to achieve better results when using flash in photography.

Understanding Types of Flash Units

There are many variations of flash units but here we will discuss three common types of flash units used by photographers:

- **Built in flash**
- **Speed light flash units**
- **Studio flash units**

What is a Flash?

All flash units have a 'capacitor' which stores a high voltage charge. When this charge is released, it activates a gas filled tube which produces an intense flash of light. This light is measured in watt/seconds or Joules.
The amount of charge from the capacitor can be controlled by either the camera or the flash unit, automatically or manually by the photographer.

Controlling The Flash

The intensity of the light from a flash is controlled by the aperture or 'f stop' on the camera.
The correct exposure of a flash also depends on the distance of the subject to the flash.
The quality of a flash light is affected by either the direction of light from the flash (on or off camera) or the 'softness' or 'hardness' of the shadows produced by the flash.

Thumb rules to remember are:
- **"The smaller the light source, the harder the shadows"**
- **"The larger the light source, the softer the shadows"**

Common Types of Flash Units

Built in Flash

These are found on most cameras and are also referred to as ‘pop up’ flashes. They can be turned on or off and can also be activated automatically should the light conditions be very low.

Advantages

- **Convenient**
- **Auto exposure settings available**
- **Can be used as a ‘fill flash’ in daylight within 3 meters**

Disadvantages

- **Small light source**
- **Limited power output**
- **On camera location**
- **Limited control of exposure**
- **Flat lighting on subject**

Common Types of Flash Units

Speed Light Flash Units

Seen here mounted on external support

Speed light units can be mounted on the 'hot shoe' bracket on most SLR cameras as well as any hot shoe capable camera.
You can still achieve good results having the unit mounted on the camera's hot shoe but tilting or rotating the head and 'bounce' the light off a wall or ceiling.

A better option with these speed lights is to activate them 'off camera' with a triggering device, easily available for most SLR cameras.

Advantages

- **More powerful than built in flashes**
- **Auto (ETTL) and manual settings available**
- **Can be used as a 'fill flash' in daylight with various controls**
- **Bounce flash capabilities with tilting and rotating head**
- **Nikon & Canon have high speed synchronisation capabilities**
- **Some are able to activate other hybrid flashes as secondary flashes**
- **Can be placed in various locations in a photo shoot**
- **Additional components can be added to diffuse or change the light quality**

Disadvantages

- **Battery life limited**
- **Recycle time variable**
- **Small light source if used directly at subject**

Common Types of Flash Units

Studio
Monolight Flash Units

Monolight flash units are very powerful and produce much more light intensity than the pop up and speed light flash units.
They are used in fashion, portraiture, product and architectural photography and are commonly used in a photography studio.

The output is often measured in watt/seconds or in Joules. The above unit has a 500 joule output. Monolights range from 200 to 2400 joules.

The larger the output the more expensive they are.
They can be bought as a kit containing accessories such as diffusers, umbrellas and stands.

Advantages

- **More powerful than built in flashes or speed lights**
- **Output settings can be adjusted from 1/64 of the power to full power**
- **A large range of accessories such as ‘soft boxes’ honeycomb grids etc.**
- **Built in modelling light enables a preview of the light on a subject**
- **Can be activated by a cable, ‘slave sensor’ or wireless signal**
- **Portable**

Disadvantages

- **Needs 240 volt power**
- **Power cables can clutter the studio or set**
- **Some units have flash tubes exposed and can be damaged**
- **Due to the powerful internal capacitor, there are safety issues in handling**

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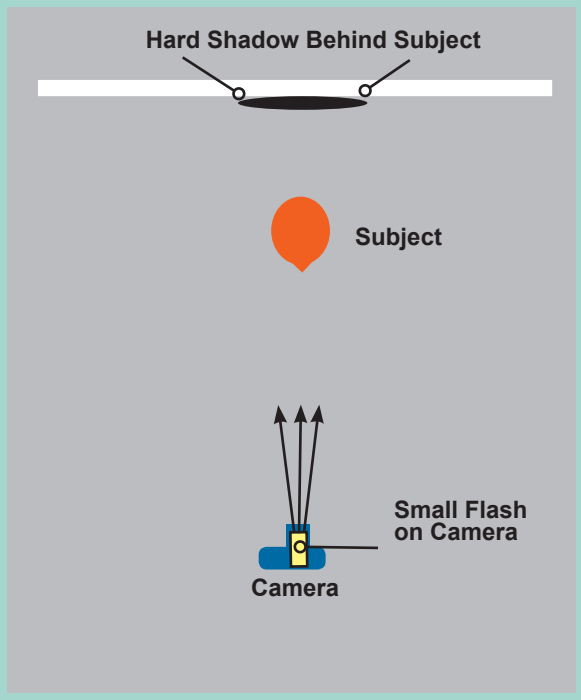
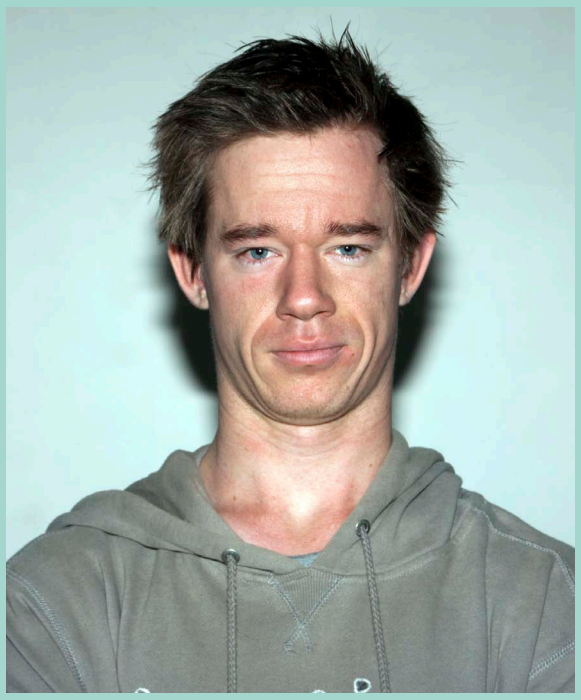
Direct Flash

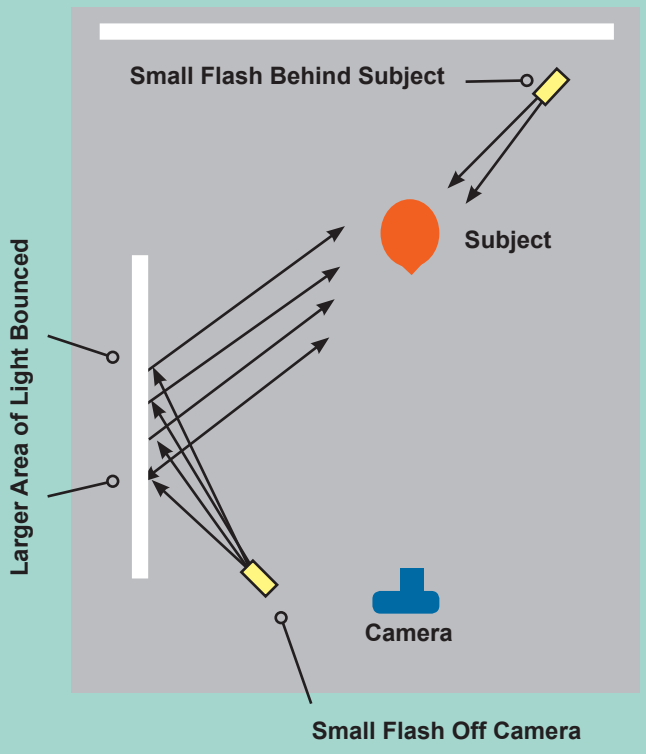




Above: Example of using either a pop up flash or Speed light on the camera. Note the flat lighting and hard shadows behind the subject on the wall.

Below: Example of using Speed light away from the camera and bounced off a wall. There is also a second Speed light behind the subject to create a highlight (Rim light) on the right of the subject. Note: Softer shadows and directional main light from the wall at left .

Bounce Flash



Studio Flash Soft Boxes & Tables

THREE LITTLE WISHES PHOTOGRAPHY

Studio lighting can have large soft boxes that diffuse the light and create very soft shadows and large highlight areas on shiny products.

Table top product or food photography is often best achieved by using a translucent curved plastic sheet mounted to a frame.
This allows light to be bounce underneath or through the table and create shadowless or backlit subjects.