

# Photographing Fireworks

Basically we are photographing streaks of light that develop over a period of time against a black background. The great thing about a black background is that it makes no impression on the sensor in the digital camera. So we can leave the shutter open as long as we like, the black will still be black. So, in short, the way to photograph fireworks is to set the camera to manual exposure, set the aperture to a suitable f-stop and the shutter to b or bulb. Open the shutter just before the firework bursts and close it after it's finished. Easy!

## Tripod

The first thing we need is a sturdy tripod. The alternative methods of support that I mentioned in the photographing buildings tutorial won't cut it here. Here we are talking about seriously long shutter times of several seconds so nothing but a good sturdy tripod will do. The second piece of kit that would be very useful is a remote shutter release so you don't have to touch the camera at all. Auto focus will not work when photographing fireworks. The lens will whirr backwards and forwards trying to find something to focus on in the black sky. Set the focus to manual and then focus on something in the far distance.

## Aperture & Shutter Speed

The aperture you set depends on the ISO rating set on your digital camera. At ISO 100, you will need to set the aperture to between f8 and f16. So a good start would be f11 at 100 ISO, but it will need to be adjusted for very bright fireworks. Set the shutter speed to b. At this setting, when you press the button, the shutter opens and when you release it the shutter closes.

## Framing

Framing a picture you can't yet see is always going to be a challenge. You can take a wide shot that includes a bit of foreground – a building or monument or just silhouettes of the crowd. This can be a problem getting the proper exposure and eliminating blurring. A better way is to shoot all the elements separately and then combine them later in Photoshop Elements, GIMP or any other layering software.



## Layers

The image to the left is made up of six different pictures. It would hardly qualify as the most realistic picture of the year but it is quite colorful and exciting, and it portrays a good impression of a firework display. The background of the picture is the photo of the buildings (I had to extend the sky a little using the 'canvas size' tool to make a bit more room for the fireworks).

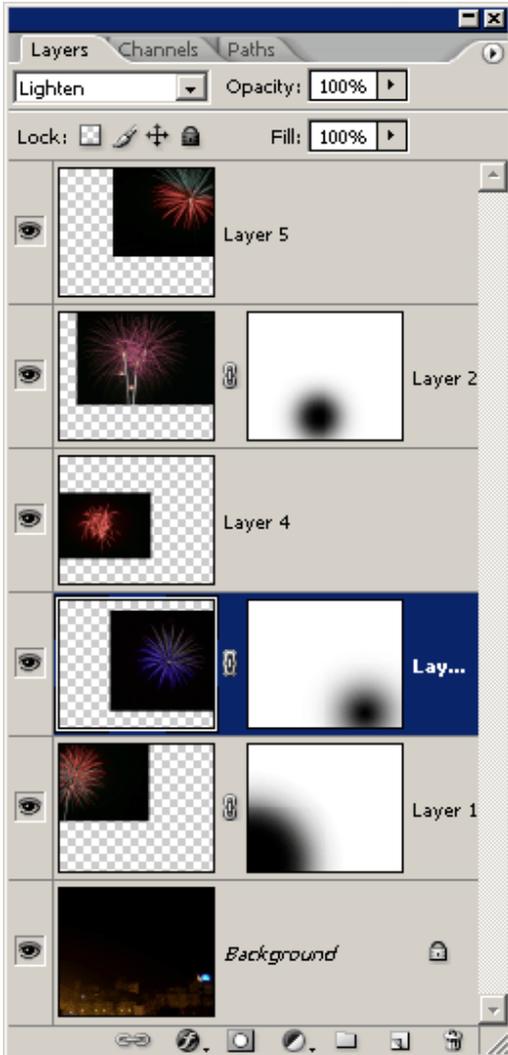
The fireworks were then added one by one by simply dragging the photo into the widow of the background picture. This creates a new layer on top of the existing layer. At this stage you can't see the background layer at all. However if you

change the layer mode from 'normal' to 'lighten' the background reappears.

Below you can see the layers palette for this picture layer 3 is selected which contains the blue firework and you can see at the top of the palette the layer blending mode is set to 'lighten'. This means that only the parts of the image that are lighter than the layer(s) below will show. For the purpose of our subject this is ideal as the background of each image disappears.

The ability to stack layers makes it easy to put together different elements as in this case or make adjustments to the color or contrast, using adjustment layers, that are completely reversible and adjustable and never need to become irreversible.

Using the move tool while selecting a layer enables you to move each element anywhere in the frame, so you can have hours of fun getting the positioning just right. Also on the 'transform' menu which is one of the choices under edit you have the chance to resize each element, rotate them or distort them in other interesting ways. I have done a fair amount of resizing in this picture.



### Hue & Saturation

Another tool that I made extensive use of in this picture is 'Hue & Saturation'. This can be found under the 'Image' -> 'Adjustments' menu.

There are various ways of changing color in Photoshop, some are very subtle and are used for color correction, but when we need a completely different color the 'hue' slider is the one to use. Not all hues will work well, you need to select the color quite carefully bearing in mind that fireworks are usually bold prime colors.