

Intro to IR Photography

There are 2 main ways to get into Infra Red (IR) photography;

1. using filters to block out the visible light and
2. converting an existing camera to record IR

1) **Using Filters** - The first option has the advantage of being cheaper and your camera can still be used for 'normal' photography. The common filters block light below 720nm e.g the Hoya R72. Check the internet or do a quick experiment using your TV remote control to see if your camera can record IR images.

Filters can be screw-in or square, but be careful of light leaking through the back if using the square ones.

IR light will focus at a slightly different point on your sensor to visible light so it is best to use narrow apertures e.g f16 to maximise the depth of focus. Exposures will be long, so a tripod will be needed.

It may be necessary to push up your ISO otherwise exposure times can be several minutes!

Check your lens is suitable and doesn't give a 'hotspot' – a brighter circle in the middle of the image. There is a list of suitable lenses on dpanswers.com

Use an exposure calculator or trial and error to find the required exposure for your filter.

2) **Converting an Existing DSLR** - When cameras are converted to record IR a filter is removed from the front of the sensor and replaced with a blocking filter which stop visible light and only allows wavelengths in the IR region to pass through.

Several companies do this conversion or you can often pick up a converted DSLR or compact camera on Ebay etc.

Options	Pros	Cons
Filters	Cheaper option Can be used on your regular camera Can use different blocking wavelengths	Possible light leaks Long exposures No good for moving subjects Exposures hard to calculate Tripod needed High ISO may be needed
Converted DSLR	Can be used for people shots Exposures are short, so can handhold Can do IR videos Easier to change lenses/no filter adaptors required Can use lower ISOs	More expensive Camera can only be used for IR Stuck with one filter wavelength eg. 720nm

Processing the Infra-Red Image

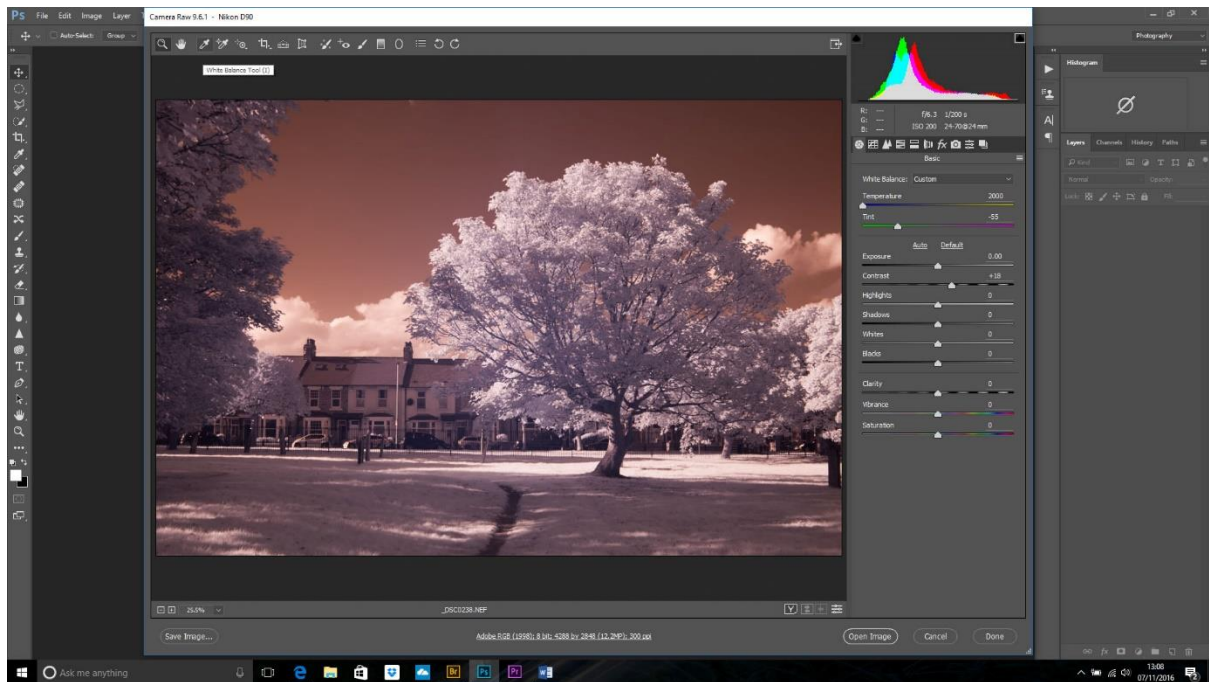
There are numerous YouTube videos detailing the steps required to process the IR image you get from your camera. The way you process the image depends on what you want to achieve.

The simplest way is just to make it black and white – and you can often get really good results doing this.

The more complicated ways are when you want to have colour (false colour) in the image.

The typical IR picture has glowing white foliage, so it is best to set the WB manually using greens.

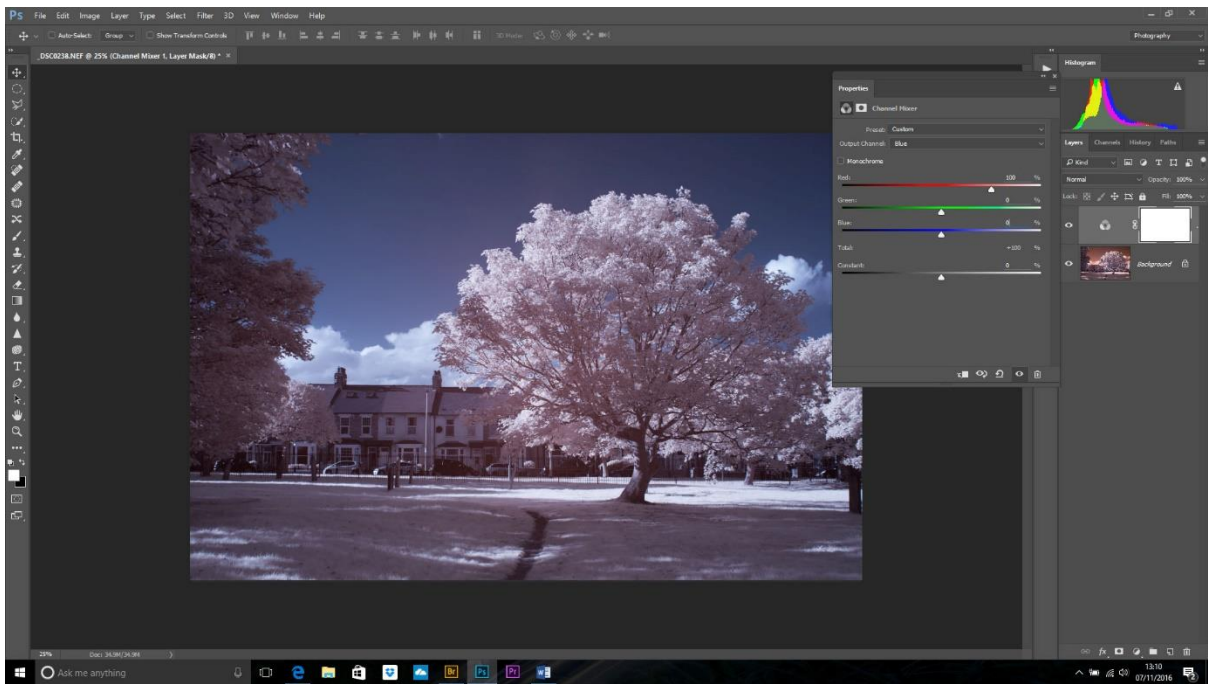
I have found that a reasonable WB can be achieved setting the WB in camera to green and then using the WB eyedropper tool to click on the foliage during the RAW conversion.



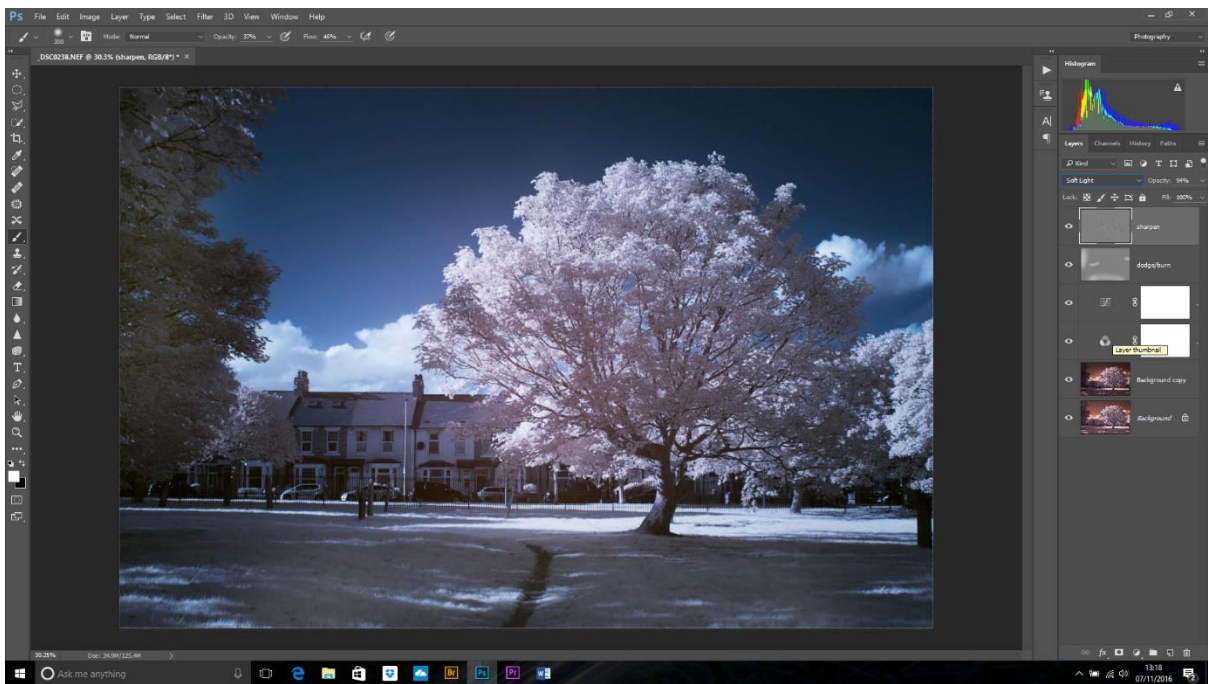
Next we do a Channel swap. Open a Channel Mixer adjustment layer and Output Channel select Red. Change the Red from 100% to 0% and the Blue from 0% to 100%.

Change the Blue output channel from Blue 100% to 0% and the red from 0% to 100%.

NB. This can be set up as an Action if you are going to do a lot of channel swapping.



I will then finish off with a curves adjustment to add contrast and neutralise any colours I don't like. I might also dodge and burn then apply a bit of sharpening using High Pass.



Done!

Other shots from the same location using a 720nm converted Nikon D90:

