

What is InfraRed Photography?

Visible light has a wavelength that ranges from 380 nm - 750 nm on the electromagnetic spectrum while infrared light is just beyond it, ranging from 700 nm - 1 mm, the start of the non-visible portion of the spectrum. As a result, infrared cannot be seen except with special equipment.

Why InfraRed Photography?

1. You are wanting to introduce something new and amazing into your photographic life.
2. You want to see the world in a wholly different and surprising, yet somewhat familiar way.
3. You want to explore new techniques in post production.
4. You want to shoot during the time of day that most visible photographers find less appealing, i.e mid day with bright sunlight.

How to take the plunge:

1. Using your unmodified visible light camera and buying external filter(s)

The latest digital cameras are sensitive to infrared light, so much so that manufacturers place a hot mirror filter in front of the sensor to block infrared light to prevent infrared IR light from spoiling regular photographs. It is still possible to shoot digital infrared photography with an unmodified digital camera but the exposures become quite long and in most cases require a tripod, not to mention the need to place an infrared filter in front of the lens to block visible light.

advantages: least expensive

disadvantage: need to place filters in front of the lens, need a tripod and higher ISO due to very long exposure times needed to capture IR light

2. Modifying a visible light camera
 - a. DIY (takes know how, patience) not recommended for a novice
 - b. send a camera you are not using into a reputable company to have it modified
 - c. buy an already modified camera from a reputable company or a private party

Choices to Make:

1. Camera type - DSLRvs Mirrorless
 - Mirrorless- can autofocus w/o any problems with all mirrorless lens
 - DSLR - can autofocus if camera and lens are calibrated at the time of conversion, otherwise can only autofocus using live view
2. Specific Lens - certain lens are known to have "hot spots"and should be avoided
3. Wavelength (nm) of the filter you will be using
 - a. 590nm allows for some visible light and has the best options for producing pseudo color or B&W This choice best for those who like to spend time learning and using various post processing techniques.

b. as the #'s go higher, i.e. 720nm, 830nm, less visa light and more B&W with less need for post processing.

4. Full Spectrum modification -
advantage -

- a. allows you to use the camera for visible light images
- b. can utilize different filter wavelengths, i.e. 590nm, 720, 830nm

disadvantage -

- a. have to buy and carry external filters

5. Modify camera with a specific nm filter

advantage

- a. does not need external filters
- b. can use external filters to create different effects w/o additional post processing if so desired

Post Production:

crucial to create custom WB in camera

Important to channel swap in PS before working with faux-color

Resources:

1. Two Companies that sell modified cameras or can convert your own camera. They both have extensive tutorials

www.lifepixel.com

www.kolarivision.com

2. Three FB groups which you can join that post IR images and can answer specific questions:

Infrared Monochrome Photography

The Wide World of Infrared Photography Group

Infrared Photography Group

3. Various You Tube Tutorials