

How To Image The Sun

National Park Service
U.S. Department of the Interior

Natural Resource Stewardship & Science
Natural Sounds & Night Skies Division



Point and Shoot Camera Solar Imaging

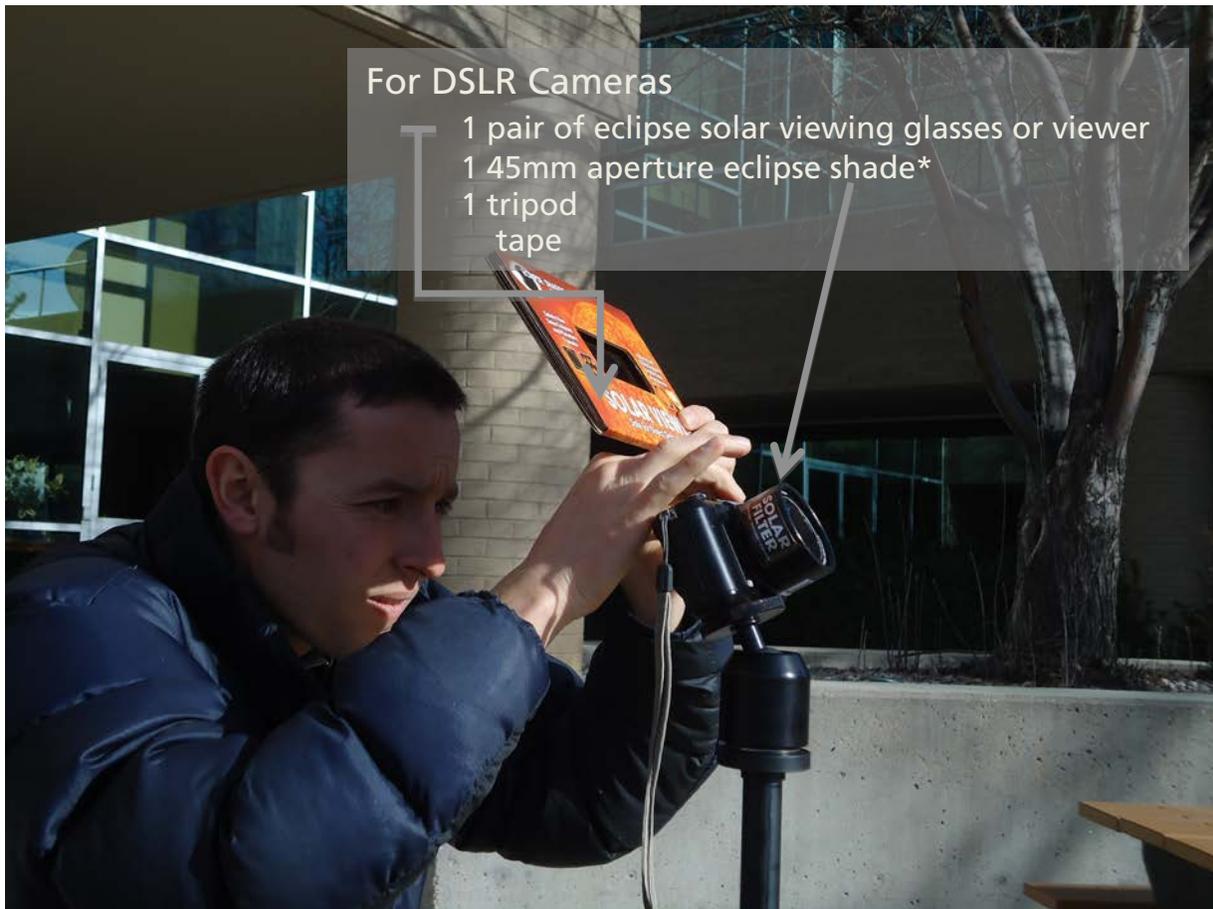


Image 1. NPS Night Skies Team member Jeremy White imaging the Sun.

Do not attempt to image the sun without wearing eclipse glasses or looking through an eclipse viewer first! (as shown above in Image 1)

Image 1 shows a commercially available eclipse shade that is slightly bigger than the camera lens. It is important to tape the filter so the filter lies flushed or flat across the camera lens. Never turn on the camera while pointing at the Sun without an eclipse shade securely attached first!

*Tip: *Eclipse shades can also be purchased for binoculars and small refracting telescopes. Make sure to measure the outside diameter of your device before ordering. The “aperture” listed is the inner diameter of the filter, not the outer diameter!*

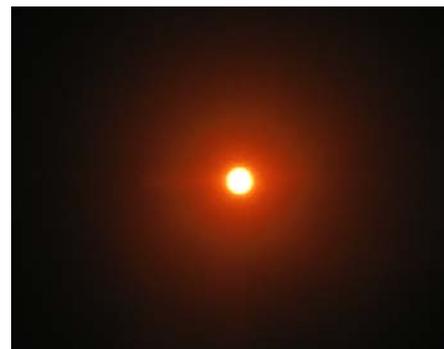


Image 2. The Sun imaged by J. White. Settings used: f/2.8 at 1/6sec, ISO 1600

For Autofocus Point and Shoot Digital Cameras

- 1 pair of eclipse solar viewing glasses or viewer (for photographer)
- 1 eclipse viewer or 1 eye lens of eclipse glasses (for camera)
- 1 tripod
- 2 pieces of tape

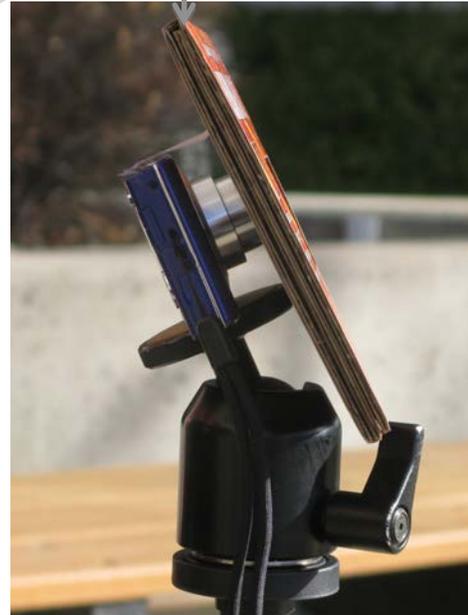


Image 3. Left: front view. Right: side view

Do not attempt to image the sun without wearing eclipse glasses or looking through an eclipse viewer first!
(as shown above in Image 1)

Image 2 shows a commercially available eclipse viewer taped flushed to the front of a small point and shoot digital camera capable of 14 megapixel resolution. It is important to tape the filter so it lies flushed or flat across the camera lens. Never turn on the camera while pointing at the Sun without an eclipse filter securely attached first!



Image 4. The Sun imaged through a solar viewer, by T. Jiles
Settings used: f/2.7, ISO 80 at 4x optical zoom

Tip: Before pointing the camera at the sun, point the camera to the horizon at full zoom. Focus at the most distant object on the horizon. Now the camera lens is focused to infinity and fully extended. Tape the eclipse viewer flat to the camera lens. Wearing your eclipse glasses or solar viewer, tilt the tripod until the sun appears in the camera's field of view. The autofocus cameras will have trouble focusing the sun at first. Try pressing the shutter button halfway down to focus. If the sun is not in sharp focus, then try pressing the shutter button all the way down a few times. Chances are one of the images will be in close focus. If clouds are covering the sun a sharp focus will be almost impossible.