

# Astrophotography

Use a tripod. Always use manual mode (M). Use manual focus and a remote shutter release is advisable.

Set the ISO high, open the aperture to widest setting ('stop-down' one or two stops if possible), 'daylight' white balance and store images as RAW files.

Focus by using a flashlight set 50 feet away, or by using live-view on a star or using step-through focus with playback and review.

30 seconds is a typical exposure time for a night sky scene with a wide-angle lens.

High ISO is recommended for most night-time images. Use 'dark' frames to reduce noise (take image with lens cap on with the same exposure time as you images and 'subtract' from your photo in post-processing).

Star trails can be produced by stacking equal length exposures in software such as StarStaX or Startrails.

The Moon should be photographed with a minimum focal length of 300mm. Use an aperture of around f/5.6, ISO 400-800. For the Full Moon, an exposure of 1/500 second should suffice. Crescent Moon with Earthshine ~1 second.

To photograph the Sun, cover your lens with astro-solar film. Take extreme care when photographing the Sun.

Cameras can be connected to telescopes using a T-Ring and a T-Adapter.

Webcams can be used to take hundreds or thousands of single frames and stack in RegiStax.

Use image stacking to effectively increase exposure time and reduce noise.

Photoshop, GIMP or Irfanview can be used to process images.