by Terence Dickinson

Video with your telescope

ASTRO-SHOWTIME

Lightweight and simple to use, the MallinCam video CCD camera is an ultra-low-light camera that fits in a standard 1.25-inch eyepiece focuser and displays real-time images of the Moon, planets and deep-sky objects on a television monitor.

IMAGINE YOU COULD REPLACE YOUR FAVOURITE telescope eyepiece with a miniature television camera so that every celestial object your telescope points to would appear "live" on a monitor. Now make that camera more light-sensitive than a human eye, and you have a recipe for a versatile astronomical tool that's easy to use and, best of all, offers group viewing of everything from the Moon to the central star in the Ring Nebula.

This is no dream of the future. The MallinCam video CCD camera is here now—a fist-sized, ultra-low (0.0001 lux) camera that comes ready to fit into any 1.25-inch eyepiece focuser. You just supply the TV, though for best performance, I found that an inexpensive 9-inch black-and-white studio monitor from a new/used electronics store worked noticeably better than my colour TV set. The MallinCam's output is black and white to render faint celestial objects as bright as possible. Thus a high-resolution black-and-white monitor is preferred. The output can be recorded on a normal VCR.

The true test of any equipment, though, is its performance under the stars. On my Celestron 11-inch Schmidt-Cassegrain with an f/3.3 reducer, the MallinCam's field of view is a bit less than half the Moon's diameter—just right for a video stroll across the lunar landscape. This was a big hit with the students in my beginning-astronomy class when they visited my observatory, especially the undulations caused by seeing, which always equally fascinate novices and frustrate veteran telescope users.

On the deep sky, the MallinCam really shines. Even with the gibbous Moon above the horizon, the Ring Nebula's 15th-magnitude central star remained easily in view. Star clusters such as M11, M15 and M22 each seemed more emphatically unique when framed on the monitor. (CONTINUED ON PAGE 19)

Eyepieces for Digital Camera Astrophotography

DIGITAL CAMERAS DO MANY THINGS WELL, but for the astronomy enthusiast, the one photographic task they do superbly is take images of the Moon through a telescope. Taking a picture of the Moon can be as simple as holding a digital camera up to a telescope eyepiece, positioning the Moon in the LCD screen and ... click. Your first evening could bag you a decent shot, thanks to the camera's auto-focus (most auto-focus digital cameras readily focus on the Moon through the eyepiece of a telescope).

But with a proper interface between camera and eyepiece, it is possible to up your quota of really fine lunar portraits substantially. The secret is coupling the camera to an eyepiece and then inserting the entire assembly—camera and eyepiece—into the telescope.

Two eyepieces that have become synonymous with high-quality lunar imaging (planetary imaging too) are the ScopeTronix MaxView 40 and MaxView II. Not only are they excellent wide-field eyepieces, but they are specifically optimized for use as eyepiece-to-digital-camera interfaces that apply the maximum possible field to the digital camera. Almost every digital camera will fit one or the other of them. ScopeTronix products are available through many Canadian dealers. The MaxView 40 is $195 (Cdn), and the larger MaxView II is $285 (Cdn). (Prices may vary due to exchange rate.) ■

The ScopeTronix MaxView 40 (left) and MaxView II (right).

KLAUS BRASCH

MOON VIEW

The low-profile threaded eye lens of the ScopeTronix MaxView 40 (1.25-inch body) and MaxView II (2-inch body) eyepieces offers maximum versatility when coupled with almost any type of digital camera. Moon photo taken with MaxView 40 on a 14-inch scope.