

REVIEWED

THE SKY-WATCHER Star Adventurer Mini

Does the world need another camera tracking platform? **Ninian Boyle** finds that there is indeed still a niche for Sky-Watcher's great new Star Adventurer Mini.

▼ The Star Adventurer Mini attached to the equatorial wedge affixed to a sturdy tripod. Notice the USB and camera control sockets. Image: Ninian Boyle.

There are lots of ways to take pictures of the night sky these days. You could, for example, put your camera on a tripod and take a fairly short exposure of the stars and, if you are shooting from a dark-sky site, it will look quite reasonable. Alternatively, you could attach a camera to a telescope and take images that way, or you

could even control a telescope remotely over the Internet and download the images obtained from it.

Given all that, is there any point in producing just another camera tracking mount to enable you to take pictures of the night sky?

This was the question I had at the forefront of my mind when I was invited to review Sky-Watcher's *Star Adventurer Mini* (which we'll from here on abbreviate as 'SAM'). However, I quickly realised that this particular gadget offered a whole lot more than just being another camera tracker. The box arrived and, upon opening it, I was immediately surprised by just how dinky this particular piece of equipment is. I reached for the instruction manual (which is all in English, so there was no having to constantly flip through the pages to find the right information) and found it to be pleasingly comprehensive.

The basic kit includes the camera platform and an illuminated polar-alignment scope. You will need a fairly sturdy photographic tripod or something similar, and just how sturdy depends on what you plan to mount onto SAM. It can take a standard DSLR camera, which is obviously what it was designed for, but it can also handle two cameras side by side or, with careful balancing, even a small telescope by using a 'fine tuning mount assembly'. This is not included in the basic package, but comes as an optional extra, as do an equatorial wedge and a counterweight. You will also almost certainly need a ball mount for your camera, which is very easy to attach to the tracker. This will give you the flexibility to point your camera in almost any direction and at any orientation that you choose.

The SAM therefore has several possible configurations for mounting your gear and can handle up to three kilograms, which is quite impressive for such a compact piece of equipment barely ten by seven centimetres in size. I particularly liked the solid screw threads and attachments and was quite happy to attach my Canon D70 camera without fear that it was going to fall off!





▲ The Sky-Watcher Star Adventurer Mini is a stable and portable camera platform.

At a glance

Price:
£199

Weight:
650 grams

Payload weight:
Up to 3kg

Dimensions:
76 × 70 × 103mm

Power Options:
2× AA batteries or external USB supply

Basic package includes:
Camera platform, illuminated polar alignment scope, built-in WiFi

Maximum recommended camera lens focal length:
100mm

Fits:
Standard 3/8 and 1/4 inch tripod/quick-release brackets

Tracking rates:
Solar, lunar and sidereal

Details:
opticalvision.co.uk

App control

When set to sidereal rate, the SAM is a neat camera-tracking drive for stars, but what else can it do? This is where it starts to get interesting. The SAM is controlled via WiFi through a free-to-download app on your Android or Apple tablet or phone. The app gives you complete control over both the functions of the mount and the camera shutter, although you will need to have the correct remote control and flash trigger cable (specific to your camera model) to connect your camera to the SAM. You can set it up and go back into a nice warm room, while your mount and camera go about their work. You can even use it remotely via the Internet, so feasibly you could leave it tracking while you go out for dinner, although I for one would not recommend this just in case!

Time-lapse video

The SAM can also be used to acquire time-lapse video, which is its real strength. You can do static videography – meaning that you can do a time-lapse of the Milky Way sinking over the horizon, taking a frame every few seconds or minutes, for example – or you can do a panning time-lapse, where you can create a video of the night sky moving while panning across a fixed terrestrial point. There are plenty of examples of such videos on YouTube, if you search for the Star Adventurer Mini.

Indeed, the capabilities of the SAM invite creativity. This is all very impressive for such a small mount. It is all very easy to set up and the remote control via a tablet or smart phone is really easy and functional. It has three tracking rates: solar, sidereal and lunar.

Finding the pole

Polar alignment was a breeze and there are two ways to carry this out. It has a built-in polar view-finder, which is adequate for a quick set up, but you can use the illuminated polar alignment scope for greater accuracy, and this is also easy to set up. If you live in the southern hemisphere, the polar alignment scope



■ The Star Adventurer Mini's equatorial mount.

conveniently has the sigma Octantis (the southern 'pole' star) group inscribed onto the reticle to help with this. I particularly liked the 'polar clock utility' in the app, which helped fine tune the alignment quickly and easily. The intervalometer, which is built in to the app, saves you from having to use a separate unit, which in turn means less wires trailing. It allows multiple long exposures with a cooling-off interval in between. I found this easy to use and very functional. The camera control part of the app in general is very straightforward and powerful.

The unit is powered by two standard AA batteries and I had no problems with battery lifetime during my testing of the system, so it is seemingly very economical with its use of power. If you prefer, you can use an external power source via a USB socket plugged into the SAM.

I was very impressed with the SAM's build quality, and all the sockets and switches I found to be very positive in use. I had no hiccups with the system and found using it to be a truly enjoyable experience. I feel I have yet to explore all the capabilities of the unit and I believe that Sky-Watcher have produced a really high-quality, serviceable and useful product that will open up the field of creative astro-imaging and videography. It is smaller than its sibling, the Star Adventurer, making it readily portable for use in the field on a solar or lunar eclipse trip, for example. To answer my question at the beginning, the Star Adventurer Mini proves to be a very well thought out tracking mount, providing portability, versatility and a lot of fun!

Ninian Boyle is an amateur astronomer. You can visit his website at astronomyknowhow.com.

► Right: Polar alignment of the Star Adventurer Mini is pretty straightforward, using the built-in polar view-finder. Image: Ninian Boyle.

► Far Right: The Star Adventurer Mini is designed for use with DSLR cameras and can carry one or two of them, or even a small telescope weighing up to three kilograms. Image: Ninian Boyle.



► The region around Cygnus, imaged with a Canon ESO 70D with an 18–135mm zoom lens on the Star Adventurer Mini. The final images were stacked and processed in *Photoshop* to remove light pollution. Image: Ninian Boyle.

