

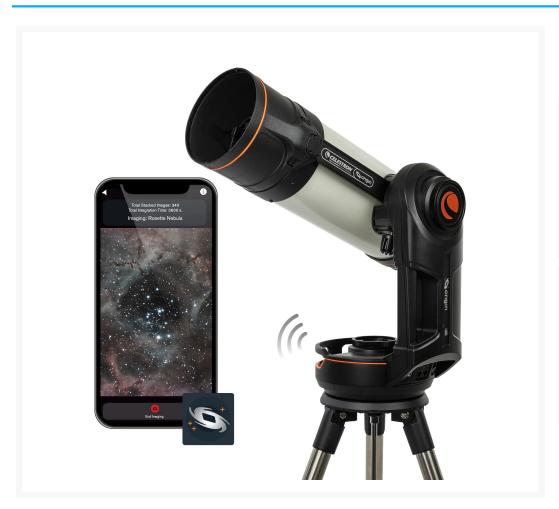
Sirius Optics Unit 1 26 Darnick Street Underwood, Qld 4119 **Opening Hours** 

10am-5:30pm Mon-Fri 9am-2pm Sat Phone: 07 3423 2355 www.sirius-optics.com.au

# Celestron Origin Intelligent Home Observatory

**AUD** \$7,349.00

# **Product Images**







# **Short Description**

• **Stargazing and Astroimaging Redefined:** Celestron Origin is an intelligent, all-in-one home observatory that captures stunning views of faint, deep-sky celestial objects and delivers them to your phone or tablet. The images you capture in

seconds look better than what you'd see in the eyepiece of a much larger telescope under much darker skies.

- **Revolutionary RASA Optical Technology:** Origin's patented 6" Rowe-Ackermann Schmidt Astrograph (RASA) optical design places it in a class by itself. With its large aperture and fast f/2.2 focal ratio, you get unparalleled image brightness and clarity with less exposure time.
- Automatic, Al-powered Astrophotography: As Origin captures data, built-in Al algorithms autonomously stack and process every frame in real-time. Galaxies and nebulae instantly come to life—sharp, detailed, and in brilliant color—all with no user intervention.
- Automated Setup with StarSense: To get started, place Origin outside, turn it on, and connect to the app. Using Celestron's patented StarSense technology, Origin scans the sky and autonomously focuses and aligns itself. You're ready to select a target and start imaging in less than two minutes.
- Intuitive App Interface: The user-friendly Celestron Origin Powered by SkySafari™ app for iOS and Android, developed in partnership with Simulation Curriculum offers a simple yet powerful planetarium interface, making it easy to navigate the sky and control the system.
- **Share the View with Everyone:** Multiple users can use the Origin app to view the telescope's live feed simultaneously. You can also cast the view to your smart TV or save and share it instantly.
- Advanced Features: As you grow in the hobby, download the raw image files you capture for more advanced manual processing. You can also experiment with filters and use Origin for night-vision or land-based observing during the day.

# **Description**

Celestron Origin stands at the forefront of a new era in amateur astronomy, blending stargazing and astrophotography into a single, user-friendly experience. This intelligent, all-in-one home observatory takes the complexity out of traditional telescopes, transforming your backyard into a gateway to the cosmos. Packed with cutting-edge technology, Celestron Origin captures the beauty of celestial objects and brings them to life on your phone or tablet.

Celestron engineers drew on their decades of expertise while designing every detail, from Origin's patented optical technology to its intuitive companion app. The result is a revolutionary new system that builds on Celestron's legacy and makes astronomy more accessible, exciting, and fun than ever before.

#### RASA Optical Technology: Unleashing the Power of Light

At the heart of Celestron Origin lies the patented Rowe-Ackermann Schmidt Astrograph (RASA)—a landmark advancement in optics. In the RASA design, the imaging sensor lies at the front of the telescope tube, not the back, creating an ultra-fast f/2.2 system with an extraordinarily wide field of view while providing sharp images to the edge. Since it launched in 2014, RASA technology has become the go-to choice for space surveillance and satellite tracking. National defense contractors, professional research astronomers, and governments trust RASA to detect tiny pieces of debris and space junk, keeping our vital communications satellites safe in orbit. For Origin, Celestron's optical engineers developed a brand-new 6" RASA with all the same capabilities of an observatory-grade instrument in a grab-and-go package.

Thanks to RASA, Origin is in a class of its own, far outperforming other telescope designs. RASA simply delivers more photons in less time than a smaller and slower Newtonian reflector, refractor, or other entry-level telescope tube. RASA's unique combination of speed, aperture, and performance ensures unparalleled image detail, even during short exposure times.

To take full advantage of the RASA optics, Celestron selected the Sony IMX178 color CMOS sensor to capture your data. It features STARVIS back-illuminated technology for the highest sensitivity and fast readout with low noise, helping to provide clear images as quickly as possible. This sensitive chip has small 2.4µm² pixels for high resolution—a perfect match for the fast optical design.

#### **Turning Every Backyard Observer into an Astroimager**

Celestron Origin introduces a paradigm shift in astrophotography with its built-in AI algorithms. As the telescope captures data, these intelligent algorithms automatically stack and process every frame in real time. The result is a breathtaking display of celestial objects, rich with color and detail. For the first time, astroimaging is accessible to enthusiasts of all skill levels, including those who have never used a telescope.

# A Universe at Your Fingertips: StarSense Technology & the Origin App

Setting up Celestron Origin is a snap, thanks to its automated initialization process powered by StarSense technology. Place Origin outside, turn it on, and connect to the app. Then, you can choose to remain with your telescope or head indoors. In less than two minutes, Origin focuses itself, scans the night sky, autonomously aligns itself by matching star patterns overhead to its internal

database, and notifies you that it's ready to begin your astronomical adventure.

The Celestron Origin Powered by SkySafari™ app, developed in collaboration with Simulation Curriculum offers an intuitive planetarium interface that simplifies navigation through the night sky. Using the planetarium view, hold your device up to the sky to look around using "compass mode", and tap on any object you want to see (the best ones are highlighted). Or try the Tonight's Best list, where Origin displays all the most impressive galaxies, nebulae, star clusters, and more—based on your precise location and observing time. Forget about consulting a star chart or planning ahead; Origin is ready to show you the universe whenever you are.

#### Apple iOS Download

#### Google Play Download

Once you've chosen a target, Origin centers it precisely in the field of view. Switch to the camera view and press Start Imaging to begin capturing 10-second exposures. It's that easy! You see the results come through in real-time as the target takes on more and more detail. As Origin works, it continually tracks the sky and adjusts its built-in dew prevention system to keep your images razor-sharp.

# A Shared Cosmic Experience

Gone are the days of waiting in line to peer into an eyepiece. Origin fosters a sense of community as you share the awe-inspiring experience of exploring the night sky together. Whether your friends and family are in the same room or gathered outside, multiple people can connect to Origin, and stream the view with their own devices. Additionally, Origin allows you to cast the live feed to your smart TV or instantly save and share your astroimages, creating memorable moments beyond the confines of your backyard.

#### **Ready for More? Advanced Features**

As you grow in the hobby alongside Origin, it will continue to support you with more advanced features and functionality. For example, Origin has a built-in filter drawer that accepts standard 1.25" and 2" format filters. This allows you to install optional filters, which can be especially useful in imaging nebulae in light-polluted environments like the typical suburban backyard. For imaging broadband objects like galaxies and star clusters or objects from dark skies, remove the filter for more light-throughput and brighter images. Experiment with removable and interchangeable filters for results you can't achieve with other systems' fixed filters.

If you would like to try advanced image processing, Origin again has you covered. Unlike other systems, Origin stores all your raw images for you. Connect via USB to import them into your favorite image-processing software for manual editing and stacking.

And how about putting Origin to work for you while you sleep? That's no problem with the scheduled observations feature. Just tell the app which objects you want to capture. You'll wake up to an array of spectacular images.

# Gain a New Perspective Here on Earth

In addition to revealing distant worlds, Origin can also capture incredible views of land-based objects on Earth, day or night. During the day, you can manually slew Origin to capture landscapes and scenery. At night, Origin's fast optics and sensitive camera allow you to see things in very dim ambient conditions for almost night vision-like performance. Look around your yard or campsite at night to see what you may be missing!

## **Take Your Astroimaging Studio Anywhere**

Origin is a portable system that doesn't require external WiFi networks, so you can easily take it to remote dark skies in any car. The optical tube, mount, and tripod all easily assemble and disassemble without tools. Each component weighs less than 16 lb. Optional carry cases are also available.

Your Origin system comes complete with everything you need to become an instant astronomer:

- 6" RASA optical tube with integrated camera
- Origin single fork-arm mount with internal lithium battery
- Built-in computer with cooling fans and WiFi
- Autofocuser
- Dew prevention system with environmental sensor, dew heater ring, and dew shield
- Integrated filter drawer
- Full-height tripod
- Lens cap
- AC charger

# **Future Upgrades**

When you invest in Origin, you can count on Celestron's engineers as your long-term partners in astronomy. Our technical teams are hard at work developing even more upgrades and enhancements for your Origin. For example, we provide access to Origin's camera for potential future upgrades as technology improves. We're also developing all-new functionality for your Origin and the Origin app.

Here's a sneak preview of a few features that will roll out in the coming months:

- Compatibility with the StarSense Autoquider
- Compatibility with the Wedge for NexStar Evolution and SE 6/8
- Support for polar alignment

Taken together, these features will allow you to use Origin for long exposure astroimaging. With precise polar alignment, you'll be able to achieve exposure times as long as 10 minutes or even longer. But that's just the beginning. We'll keep you notified whenever we add new features to Origin so you can keep on exploring with us!

# **Additional Information**

Optics Info: Optical Design: Rowe-Ackermann Schmidt Astrograph Aperture: 335mm (13.18") Focal Length: Focal Ratio: Optical Coatings: StarBright XLT coatings throughout 63mm (2.48") (41% of aperture diameter) Central Obstruction Diameter: Light Gathering Power (Compared to human eve): 474x Image Resolution: CG-5 Dovetail Bar Dovetail: Integrated, accepts 1.25" or 2" astroimaging filters Imaging Sensor Info: Sony IMX178LQJ, color, back-illuminated CMOS Image Sensor: 8.92mm (0.35") diagonal Pixel Size: 2.4um x 2.4um Field of View: 1.27° x 0.85° Integrated Electronics Info: Onboard Computer: Raspberry Pi 4 Model B Mount: Computerized GoTo altazimuth mount Fully automated heating element integrated into front lens, removable dew shield/lens shade Dew Prevention: Focus Motor: Autofocus or manual control One (1) fan for optics, one (1) fan for electronics, both pull air through vents with wire Cooling Fans: LED Status Ring: Indicates status "at-a-glance" Ports Info: Two (2) on optical tube for accessing raw image files for external processing, one (1) on mount for mobile device charging only USB-A: One (1) on optical tube Auxiliary Ports: Two (2) on optical tube, four (4) on mount Battery: Integrated LiFePO4, 97.9 Wh, capable of 6+ hours of use 12V DC adapter for charging internal battery or running on external AC power Power Input: User Interface Info: Runs on compatible iOS or Google Play smartphones and tablets Celestron Origin App: System Requirements: iOS 16 or higher. Android 12 or higher Dimensions: Optical Tube: 609.6mm x 177.8mm (24" x 7") diameter Mount: 457.2mm x 304.8mm x 254mm (18" x 12" x 10") Tripod (Collapsed): 330.2mm x 304.8 x 812.8mm (13" x 12" x 32") 609.6mm L x 660.4mm W x 1219.2mm H (24" L x 26" W x 48" H) Assembled System: Weight: Optical Tube: 10.6 lb (4.8 kg) 17 lb (7.7 kg) Mount: Total System: 41.6 lb (18.87 kg) Never look directly at the Sun with the naked eye or with an optic (unless you have the proper solar filter). Permanent and irreversible eye damage may result.
Never use your optic to project an image of the Sun onto any surface. Internal heat build-up can damage the optic and any accessories attached to it.
Never leave your optic unsupervised. Make sure an adult who is familiar with the correct operating procedures is with your optic at all times, especially when children are present. Solar Warning