

# EXPLORE<sup>®</sup> SCIENTIFIC

## 2023 Product Catalog

Telescopes | Eyepieces | Mounts  
Focal Extenders | Finderscopes | Accessories





**F**ounder and President, Scott Roberts has spent over 30 years in the astronomy optics industry. He became involved in our hobby as a young boy. In high school, he began selling cameras at Oceanside Photo, spending 11 years there and served as the General Manager. He was instrumental in introducing telescopes to what would be renamed Oceanside Photo and Telescope (OPT) which has now become one of the largest astronomy dealers in the world. He moved on to work at Meade Instruments spending 21 years there while holding many job responsibilities including VP of Sales.

In 2008, Scott decided to follow his passion for this hobby by starting his own company. Explore Scientific LLC began with a relationship between Jinghua Optical Corporation (JOC) in Guangzhou, China and Scott operated the company from his home in Laguna Hills, CA. JOC is a leader in Asia's optical manufacturing field and is the exclusive manufacturer of Explore Scientific products.

In 2010, Explore Scientific relocated to Northwest Arkansas to establish an office and a small warehouse in Bentonville. Business quickly expanded and the company made several moves to its present-day location in Springdale and now occupies 60,000 square feet of showroom, warehouse and office space. In 2012, Robert Price joined forces with Scott and established a formal partnership. Rob is COO of Explore Scientific, LLC and is responsible for the startup and growth of the Mass Merchant channels and our Explore One, National Geographic and Discovery brands. Since the beginning, Explore Scientific has been on a mission to make astronomy accessible and provide a truly transformative experience by giving enthusiasts of all skill levels the tools and guidance they need to explore

the skies. The company focuses on building its reputation in the astronomy community by designing high quality telescopes and premium eyepieces that quickly grew to demanding standards of clarity, contrast and functionality.

Explore Scientific branched out into other areas of the optics industry thanks in large part to strategic partnerships. In 2009, we began a mutually beneficial relationship with Bresser, a Germany-based company that has grown since its 1957 inception to become a leader in Europe's optics industry. Through this collaboration, Explore Scientific became the exclusive distributor of Bresser products throughout the Americas and expanded our offerings to include binoculars, microscopes, riflescopes, laser rangefinders, game cameras and other instruments for both outdoor sports and science enthusiasts.

The present-day business structure has changed with 100% Explore Scientific becoming a wholly owned subsidiary with USA ownership. Operations include sales, design, marketing, distribution, and light manufacturing. With its sharp growth trajectory and multi-national design group we continue to advance the standards of consumer optics with our proven technology and application competence along with our resources in China, Germany and the US.

Scott Roberts  
President and Founder  
Explore Scientific, LLC

He Jian  
CEO  
Explore Scientific, LLC

Robert Price  
COO  
Explore Scientific, LLC

# AR Air-Spaced Doublet Refractors

Explore Scientific AR Air-Spaced Doublet Series telescopes are classic air-spaced, crown-and-flint, doublet achromatic f/6.5 refractors with a superior-class optical figure. Whether you choose the AR102 (4"), AR127 (5") or AR152 (6") model, you will be impressed by the stunning images revealed in the eyepiece.

Designed to handle the rigors of public star parties and educational outreach, the Explore Scientific AR Series telescopes come with heavy-duty, high quality components, including a 2-inch two-speed Crayford focuser with compression, a 99%-reflective dielectric-coated 2-inch diagonal with 1.25-inch eyepiece adapter, an 8X50 non-illuminated straight-thru finderscope and quick release bracket, and a cradle ring assembly with 45mm wide dovetail plate (Vixen style). Included is the Explore Scientific Hybrid Finder Scope Base (ES-FB2N1-00) is designed to accept all legacy Explore Scientific finder scope brackets and mini dovetail-type (e.g. Vixen, Synta, and Celestron) finder scope brackets.

Hybrid Finder  
Scope Base  
Included  
**ES-FB2N1-00**



**DAR102065-02**



**DAR127065-02**



**DAR152065-02**

Model Number	DAR102065-02	DAR127065-02	DAR152065-02
Description	AR102 Achromatic Refractor	AR127 Achromatic Refractor	AR152 Achromatic Refractor
Clear Aperture	102mm	127mm	152mm
Focal Length	633mm	714mm	988mm
Focal Ratio	f/6.5	f/6.5	f/6.5
Resolving Power (arc seconds)	1.14	0.9	0.77
Limiting Magnitude	12.5	13	13.4
Mounting	Universal Vixen Style	Universal Vixen Style	Universal Vixen Style
Tube Diameter	100.7mm	130.4mm	157.7mm
Tube Length	25.5"/648mm	34"/863mm	41"/1,041mm
Tube Assembly Weight	10.4 lbs /4.7 kgs	15 lbs/6.8 kgs	23 lbs /10.7 kgs
Focuser	2" Two-Speed	2" Two-Speed	2" Two-Speed
Mirror Diagonal	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter
Finder Scope	8x50 Straight	8x50 Straight	8x50 Straight
UPC	812257010080	812257010974	812257011032

# ED-FCD100 Air-Spaced Triplets

An improvement upon Explore Scientific's award-winning original Air-Spaced Triplet Refractors — This series uses superior FCD100 ED glass produced by HOYA® to nearly erase chromatic aberration with performance equivalent to fluorite (CaF<sub>2</sub>). Through this technological innovation, we have successfully launched the mass production of this ultra high-performance optical glass at the apex of the FCD family. Protected between two other air-spaced elements, FCD100 allows us to achieve spectacular chromatic aberration correction. Included is the Explore Scientific Hybrid Finder Scope Base (ES-FB2N1-00) is designed to accept all legacy Explore Scientific finder scope brackets and mini dovetail-type (e.g. Vixen, Synta, and Celestron) finder scope brackets.

Hybrid Finder  
Scope Base  
Included  
**ES-FB2N1-00**



**FCD100-8006-02**



**FCD100-10207-02**



**FCD100-127075-02**

*Also available in lightweight carbon fiber.*

Model Number	FCD100-0806-02	FCD100-10207-02	FCD100-127075-02
Description	ED80 FCD100 Apochromatic Refractor	ED102 FCD100 Apochromatic Refractor	ED127 FCD100 Apochromatic Refractor
Clear Aperture	80mm	102mm	127mm
Focal Length	480mm	714mm	952mm
Focal Ratio	f/6	f/7	f/7.5
Resolving Power (arc seconds)	1.45	1.14	0.9
Limiting Magnitude	12	12.5	13
Mounting	Universal Vixen Style	Universal Vixen Style	Universal Vixen Style
Tube Diameter	100.7mm	119mm	130mm
Tube Length	18.5"/475mm; w/o dew shield 15"/381mm	30.5"/774mm; w/o dew shield 23.75"/603mm	41.75"/1,060mm; w/o dew shield 33.25" /849mm
Tube Assembly Weight	7.5 lbs/3.4 kgs	12 lbs/5.4 kgs	18 lbs /10 kgs
Focuser	2.5" Hex Focuser	2.5" Hex Focuser	2" Two-Speed
Mirror Diagonal	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter
UPC	812257017607	812257017614	812257017621

# Essential Series - ED Air-Spaced Triplets

The Essential Series telescopes are our original award-winning Air-Spaced Triplet Refractors — This critically acclaimed series uses genuine HOYA® FCD1 ED Glass protected between two other air-spaced elements, for diffraction-limited, apochromatic performance that is an exceptional value. Great for critical visual work and astrophotography. Included is the Explore Scientific Hybrid Finder Scope Base (ES-FB2N1-00) is designed to accept all legacy Explore Scientific finder scope brackets and mini dovetail-type (e.g. Vixen, Synta, and Celestron) finder scope brackets.

Hybrid Finder  
Scope Base  
Included  
**ES-FB2N1-00**



**ES-ED0806-02**



**ES-ED10207-02**



**ES-ED127075-04**



**TED15208CF-HEX33**

Model Number	ES-ED0806-02z	ES-ED10207-02	ES-ED127075-04	TED15208CF-HEX33
Description	ED80 Apochromatic Refractor	ED102 Apochromatic Refractor	ED127 Apochromatic Refractor	ED152 Apochromatic Refractor
Clear Aperture	80mm	102mm	127mm	152mm
Focal Length	480mm	714mm	952mm	1216mm
Focal Ratio	f/6	f/7	f/7.5	f/8
Resolving Power (arc seconds)	1.45	1.14	0.9	0.75
Limiting Magnitude	12	12.5	13	13
Mounting	Universal Vixen Style	Universal Vixen Style	Universal Vixen Style	Vixen or Losmandy
Tube Diameter	85mm	119mm	130mm	165mm
Tube Length	18.5"/475mm; w/o dew shield 15"/381mm	30.5"/774mm; w/o dew shield 23.75"/603mm	41.75"/1,060mm; w/o dew shield 33.25"/844mm	51.97"/1320mm; w/o dew shield 41"/1041mm
Tube Assembly Weight	7.5 lbs/3.4 kgs	9.62 lbs/4.36 kgs	20.5 lbs/9.3 kgs	20.5 lbs/9.3 kgs
Focuser	2" Two-Speed	2" Two-Speed	2" Two-Speed	3" Two-Speed
Mirror Diagonal	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter	99% Reflective 2-Inch w/1.25" Adapter
UPC	812257014941	812257014958	812257014965	811803030558

# Newtonian

Astrophotography and deep-sky visual enthusiasts will appreciate the telescope's fast f/3.9 focal ratio, which means shorter exposure times and a wide field of view that is ideal for serious deep sky observations. The use of carbon fiber for the optical tube assembly reduces the total weight of the instrument by three pounds. It also makes focus point drift virtually nonexistent, which is key to getting successful long exposures during nights with large thermal changes.

# Hybrid Truss-Tube Dobsonians

This is a hybrid truss-tube Dobsonian because the secondary-mirror is held inside a tube (like a traditional Dobsonian telescope) rather than an open cage.

Nowhere do you get as much light for your money like a good Dobsonian. Disassembly of the scope, which does not require tools, ensures a trouble-free transport of this great scope -- even in small cars. The entire structure has been optimized for maximum stiffness with minimal weight. The combination of high altitude bearings with optimized aluminum structures allows fine-adjustment flow at high magnifications.

This is an ideal workhorse for the deep-sky observers. A 254mm mirror collects hundreds of times as much light as the naked eye. Details on planets and deep-sky objects will be visible even for inexperienced observers. Bright star clusters are resolved to the core, and the sight of the terminator on the moon is an unforgettable experience.

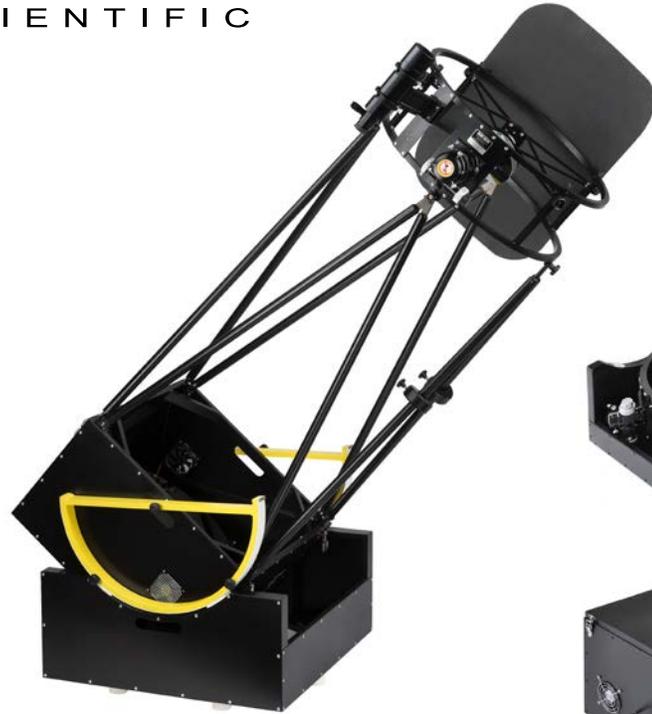


**DOB1045C**

Model Number	DOB1045C
Description	10" Hybrid Truss Tube Dobsonian
Clear Aperture	254mm
Focal Length	1,270mm
Focal Ratio	f/5
Resolving Power (arc seconds)	0.46
Primary Mirror Diameter	10"/254mm
Secondary Mirror Diameter	68mm
Mounting	Vixen-Style Dovetail
Tube Diameter	N/A
Tube Length	N/A
Tube Assembly Weight	35 lb/15.8 kg
Focuser	Single-Speed
UPC	811803031791



**10" - DOB1045-00**  
**12" - DOB1245-00**



**16" - DOB1645-00**  
**20" - DOB2036-00**



## Truss-Tube Dobsonians

Because it captures copious amounts of light, a Dobsonian telescope is an ideal workhorse for deep-sky enthusiasts and a great instrument for getting highly detailed views of our planetary neighbors. Although the size of these telescopes can appear daunting, the truss tube structure is made from aluminum for maximum rigidity with a minimum of mass. These telescopes can be broken down and transported easily even in small cars and reassembled within minutes without tools.

Model Number	DOB1045-00	DOB1245-00	DOB1645-00	DOB2036-00
Description	10" Truss Tube Dobsonian	12" Truss Tube Dobsonian	16" Truss Tube Dobsonian	20" Truss Tube Dobsonian
Clear Aperture	254mm	305mm	406mm	500mm
Focal Length	1,270mm	1,525mm	1,826mm	1,800mm
Focal Ratio	f/5	f/5	f/4.5	f/3.6
Resolving Power (arc seconds)	0.456	0.9	0.75	0.28
Primary Mirror Diameter	10"/254mm	12"/305mm	16"/406mm	20"/500mm
Secondary Mirror Diameter	68mm	74mm	88mm	120mm
Mounting	Vixen-Style Dovetail	Vixen-Style Dovetail	Vixen-Style Dovetail	Vixen-Style Dovetail
Tube Diameter	N/A	N/A	N/A	N/A
Tube Length	N/A	N/A	N/A	N/A
Tube Assembly Weight	59.3 lb/26.9 kg (Fully Assembled)	66.2 lb/30.0 kg (Fully Assembled)	88.1 lb/40.0 kg (Fully Assembled)	116.8 lb/53 kg (Fully Assembled)
Focuser	2" Two-Speed	2" Two-Speed	2" Two-Speed	2" Two-Speed
UPC	812257015566	812257015573	812257015580	811803030107

## Dobsonians Accessories

Model Number	ES-DOB1012SHR	ES-DOB16SHR	DOB-CW
Description	Explore Scientific Shroud for 10" and 12" Truss Tube DOB	Explore Scientific Shroud for 16" Truss Tube DOB	DOB-Counter Weight Set
UPC	812257018598	812257018604	812257018543

# Twilight Nano Mount

Each Twilight Nano package pairs an easy-to-operate alt-azimuth mount with one of five different telescopes. The options are a 80mm or 120mm achromatic refractor, a 114mm Newtonian reflector or a 100 mm or 127mm Maksutov-Cassegrain.

The Twilight Nano is an alt-azimuth mount that combines a long panhandle control with a large surface bushing design to make it easier for users to track celestial objects as they move through the night sky. The lightweight mount is highly portable but can still hold up to 15lbs of equipment. The included metal tripod is fully extendable and has 1 1/4" legs and an accessory tray that locks the legs in place for added stability.

To complete the package, each of these combinations comes with a 25mm Plossl eyepiece, a red dot viewfinder, an adapter that allows you to use your smartphone to easily capture and share what is featured in the eyepiece and downloadable computer software to help users navigate the night sky.

### All Packages Include:

- One 25mm Plössl Eyepiece
- Red Dot Viewfinder
- Smartphone Adapter
- Downloadable Computer Software



**FL-AR80640TN**



**FL-MC1271900TN**



**FL-N114500TN**

Model Number	FL-AR80640TN	FL-AR102600TN	FL-MC1001400TN	FL-N114500TN	FL-MC1271900TN
Description	AR80 FirstLight Refractor	AR102 FirstLight Refractor	MC100 FirstLight Maksutov-Cassegrain	N114 FirstLight Newtonian	MC127 FirstLight Maksutov-Cassegrain
Focal Length	640mm	660mm	1400mm	500mm	1900mm
Focal Ratio	f/8	f/6.47	f/14	f/4.3	f/15
Adapter	40mm Focuser with 31.75mm 90° Diagonal	40mm Focuser	40mm Focuser with 31.75mm 90° Diagonal	40mm Focuser	40mm Focuser with 31.75mm 90° Diagonal
Optical Diameter	80mm	102mm	100mm	114mm	127mm
Eyepiece	25mm	25mm	25mm	25mm	25mm
UPC	812257018017	812257018024	812257018031	812257018000	812257018048

# Twilight I Mount

Each Twilight I package pairs a versatile alt-azimuth mount with one of five different telescopes. The options are a 102mm or 127mm achromatic refractor, a 130mm Newtonian reflector or a 127 mm or 152mm Maksutov-Cassegrain.

The Twilight I alt-azimuth mount can smoothly move your telescope up, down and side-to-side and then firmly lock it into position to avoid frustrating slippage. It will support up to 18 pounds and features slow-motion controls on both axes that facilitate fine adjustments and easy object tracking. It also has an adjustable fork arm that will allow you to angle the head mount enough for some telescopes to point at the zenith. The metal tripod that comes standard with the Twilight I mount has adjustable legs and a wide footprint of 42 inches, which makes the tripod more stable. A spreader bar locks against the inside of the legs to secure the tripod even further, and keep vibrations to a minimum.

**All Packages Include:**

- One 25mm Plössl Eyepiece
- Red Dot Viewfinder
- Smartphone Adapter
- Downloadable Computer Software



**FL-AR1021000MAZ01**



**FL-MC1521900MAZ01**



**FL-AR1271200MAZ01**

Model Number	FL-AR1021000MAZ01	FL-AR1271200MAZ01	FL-N130600MAZ01	FL-MC1271900MAZ01	FL-MC1521900MAZ01
Description	AR102 FirstLight Refractor	AR127 FirstLight Refractor	AR102 FirstLight Refractor	AR102 FirstLight Refractor	AR127 FirstLight Refractor
Focal Length	1000mm	1200mm	600mm	1900mm	1900mm
Focal Ratio	f/9.8	f/9.4	f/4.6	f/15	f/12.5
Adapter	63.5mm Hexagonal Focuser with 50mm 90° Diagonal	63.5mm Hexagonal Focuser with 50mm 90° Diagonal	40mm Focuser	40mm Focuser with 31.75mm 90° Diagonal	63.5mm Hexagonal Focuser with 50mm 90° Diagonal
Optical Diameter	102mm	127mm	130mm	127mm	152mm
Eyepiece	25mm	25mm	25mm	25mm	25mm
UPC	812257018116	812257018123	812257018130	812257018147	812257018154

## AZ Mount

Designed solely for FirstLight telescopes, the AZ mount is a yoke-mounted alt-azimuth with an altitude rod. The lightweight mount allows users to easily move the telescope up and down and side to side. It comes with a fully extendable tripod.



**FL-AR90500AZ**

Model Number	FL-AR90500AZ
Description	AR90 FirstLight Refractor
Focal Length	500mm
Focal Ratio	f/5.6
Adapter	40mm Focuser with 31.75mm 90° Diagonal
Optical Diameter	90mm
Eyepiece	K9 mm & K20mm
UPC	812257018390

## Dobsonians

Explore Scientific has come up with the ultimate universal design. This Dobsonian can be converted into a Newtonian telescope. If you ever wanted to take pictures, simply unscrew the bearings from the tube and place the scope on an EQ mount with the included Vixen style dovetail plate.

### All Packages Include:

- One 25mm Plössl Eyepiece
- Red Dot Viewfinder
- Smartphone Adapter
- Downloadable Computer Software



**FL-DOB1005-02**

Model Number	FL-DOB0806-02	FL-DOB1005-02
Description	DOB08 FirstLight Dobsonian	DOB10 FirstLight Dobsonian
Focal Length	1218mm	1270mm
Focal Ratio	f/6	f/5
Adapter	2.5" Hex focuser	2.5" Hex focuser
Primary Mirror Diameter	203mm	254mm
Eyepiece	25mm	25mm
UPC	812257018277	812257018284

## EQ3 Mount

The FirstLight series is all about providing combinations of telescopes, mounts and accessories that truly complement each other. Each EQ3 package pairs a sturdy German equatorial mount with one of six different telescopes. The options are a 80mm or 102mm achromatic refractor, a 114mm or 130mm Newtonian reflector or a 100 mm or 127mm Maksutov-Cassegrain.

The EQ3 mount's German equatorial design allows users to follow the elliptical and smoothly track celestial targets on their journey across the sky. It comes with two flexible shafts for guiding the scope and a 2.5 lbs counterweight to provide the necessary balance. It can be polar aligned for easier navigation. The included metal tripod is fully extendable and has 1<sup>1</sup>/<sub>4</sub>" legs and an accessory tray that locks the legs in place for added stability.

### All Packages Include:

- One 25mm Plössl Eyepiece
- Red Dot Viewfinder
- Smartphone Adapter
- Downloadable Computer Software



**FL-N114500EQ3**



**FL-AR1021000EQ3**



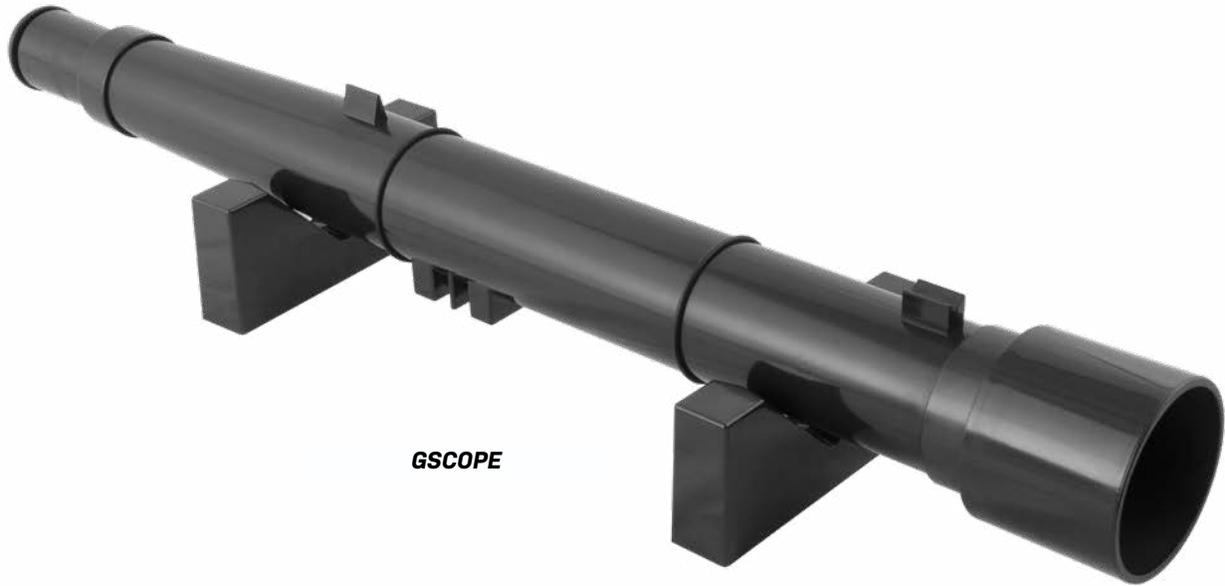
**FL-MC1001400EQ3**

Model Number	FL-AR80900EQ3	FL-AR1021000EQ3	FL-N114500EQ3
Description	AR80 FirstLight Refractor	AR102 FirstLight Refractor	N114 FirstLight Newtonian
Focal Length	900mm	1000mm	500mm
Focal Ratio	f/11.25	f/9.8	f/4.3
Adapter	40mm Focuser with 31.75mm 90° Diagonal	40mm Focuser with 31.75mm 90° Diagonal	40mm Focuser with 31.75mm 90° Diagonal
Optical Diameter	80mm	102mm	114mm
Eyepiece	25mm	25mm	25mm
UPC	812257018055	812257018062	812257018079

Model Number	FL-N130600EQ3	FL-MC1001400EQ3	FL-MC1271900EQ3
Description	N130 FirstLight Newtonian	MC100 FirstLight Maksutov-Cassegrain	MC100 FirstLight Maksutov-Cassegrain
Focal Length	600mm	1400mm	1900mm
Focal Ratio	f/4.6	f/14	f/15
Adapter	40mm Focuser	40mm Focuser	40mm Focuser with 31.75mm 90° Diagonal
Optical Diameter	130mm	100mm	127mm
Eyepiece	25mm	25mm	25mm
UPC	812257018086	812257018093	812257018093

# Educational (DIY STEM Telescope)

The Galileoscope is a high-quality telescope kit created by astronomers, optical engineers, and science educators. Because it was produced and distributed by volunteers, it is still available at low cost to support science education worldwide. Hundreds of thousands of kits are already in use in more than 100 countries.



**GSCOPE**



Model Number	GSCOPE
Description	Galileoscope Educational Telescope Kit
Focal Length	500mm
Focal Ratio	f/10
Adapter	-
Optical Diameter	50mm
Eyepiece	25X (50X with Barlow)
UPC	9830403681

## Solar Filter for Galileoscope

Turn your Galileoscope into a solar telescope with this build-it-yourself solar filter! This easy-to-assemble solar filter is designed to fit snugly inside the dew shield of a Galileoscope allowing users to safely observe the Sun. The solar film used in the filter is strong, highly resistant to tears and punctures and produces consistent yellow-orange solar images.



**DIYSUNFILTER**  
Style may vary



# 52° Series™ Waterproof Eyepieces

The longest focal length in the 52° Series with the longest eye relief, the 40mm is also the only 2.0-inch O.D. eyepiece in this series. Explore Scientific now has three 40mm eyepieces in its collection, the other two are the 40mm 62° Series, and the 40mm 68° Series. At this focal length, this eyepiece is generally reserved for deep sky observers who challenge themselves to observe near the faintest observable limit of their telescopes. The huge true field of view is perfect for deep sky objects like the Andromeda Galaxy, the Rosette Nebula, as well as large star clusters, and comets.

- + Fully multi-coated and edge-blackened to produce maximum contrast
- + Waterproof, Fog-Proof Housing
- + Durable Coating & Finishing Touches

- + Tapered Barrel for Extra Security
- + Optimized Optical Design
- + Exotic Glass Combinations for Optimum Results
- + Optional Focal Extenders for Extra Magnification

Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.



**ARGON PURGED**



**WATERPROOF**



**EPWP5203-01**



**EPWP5245-01**



**EPWP5265-01**



**EPWP5210-01**



**EPWP5215-01**



**EPWP5240-01**

Model Number	EPWP5203-01	EPWP5245-01	EPWP5265-01	EPWP5210-01	EPWP5215-01
Description	52° 3mm EP	52° 4.5mm EP	52° 6.5mm EP	52° 10mm EP	52° 15mm EP
Field Stop Diameter	2.7mm	4.1mm	5.9mm	9.1mm	15.9mm
Diameter	1.25"	1.25"	1.25"	1.25"	1.25"
Eye Relief	15mm	15mm	15.9mm	16.6mm	16.3mm
Elements	6 in 3 groups	6 in 3 groups	6 in 3 groups	6 in 3 groups	6 in 3 groups
Size	(L) 90.9mm x (W) 43mm	(L) 83.5mm x (W) 43mm	(L) 103.5mm x (W) 43mm	(L) 83mm x (W) 43mm	(L) 93mm x (W) 43mm
Weight	204.1 g/7.2 oz	181.4 g/6.4 oz	226.8 g/8 oz	181.4 g/6.4 oz	206 g/7.3 oz
UPC	811803030008	811803030015	811803030022	811803030039	811803030046

Model Number	EPWP5220-01	EPWP5225-01	EPWP5230-01	EPWP5240-01
Description	52° 20mm EP	52° 25mm EP	52° 30mm EP	52° 40mm EP
Field Stop Diameter	18.2mm	18.2mm	27.2mm	36.3mm
Diameter	1.25"	1.25"	1.25"	2"
Eye Relief	15mm	16.4mm	19.9mm	27.1mm
Elements	5 in 3 groups	4 in 2 groups	4 in 2 groups	4 in 2 groups
Size	(L) 71mm x (W) 43mm	(L) 67.7mm x (W) 43mm	(L) 75.5mm x (W) 47.8mm	(L) 96.6mm x (W) 61.8mm
Weight	181.4 g/6.4 oz	181.4 g/6.4 oz	204.1 g/7.2 oz	385.5 g/13.6 oz
UPC	811803030053	811803030060	811803030077	811803030084

# 62° Series™ Waterproof Eyepieces

The Explore Scientific 62° Series eyepieces are excellent flat-field multi-element oculars that can transform your visual astronomy experience. With an apparent field of view of 62 degrees and near parfocal design, these eyepieces offer incredible value in a very nice eyepiece.

Another great benefit of these eyepieces is the excellent contrast and ease with which you can gaze, not directly at an object, but slightly to either side. This skill, called using averted vision, is especially helpful when observing faint objects, because using averted vision puts the image on a part of your eye that is more sensitive to light, allowing you to see fainter images. Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.

- + Large eye distance and great image sharpness
- + Excellent viewing position for people with glasses
- + Excellent field sharpness even with fast optics
- + 62° apparent field of view
- + Patented EMD™-coating to maximize contrast
- + Blackened lens edges to avoid reflexes
- + Argon-purging prevents internal fogging, the sealing facilitates cleaning
- + Stainless steel barrel with conical security cutoff



**WATERPROOF**



**ARGON PURGED**



EPWP6255LE-01



EPWP6209LE-01



EPWP6220LE-01



EPWP6226LE-01



EPWP6232LE-01



EPWP6240LE-01

Model Number	EPWP6255LE-01	EPWP6209LE-01	EPWP6214LE-01	EPWP6220LE-01
Description	62° 5.5mm EP	62° 9mm EP	62° 14mm EP	62° 20mm EP
Field Stop Diameter			14.7mm	20.9mm
Diameter	1.25"	1.25"	1.25"	1.25"
Eye Relief	12.9mm	12.6mm	10.4mm	14.8mm
Elements	6 in 4 groups	6 in 4 groups	5 in 3 groups	5 in 3 groups
Size	(L) 57.5mm x (W) 38mm	(L) 57mm x (W) 38mm	(L) 53mm x (W) 34mm	(L) 64mm x (W) 42mm
Weight	110 g/3.8 oz	115 g/4.05 oz	255 g/8.9 oz	141.75 g/5 oz
UPC	812257018680	812257018635	812257018628	812257018642

Model Number	EPWP6226LE-01	EPWP6232LE-01	EPWP6240LE-01
Description	62° 26mm EP	62° 32mm EP	62° 40mm EP
Field Stop Diameter	27.3mm	33.6mm	42.2mm
Diameter	1.25"	2"	2"
Eye Relief	19.3mm	22.2mm	28.2mm
Elements	5 in 3 groups	5 in 3 groups	5 in 3 groups
Size	(L) 76mm x (W) 50mm	(L) 101mm x (W) 58.5mm	(L) 114mm x (W) 70mm
Weight	323.47 g/8.2 oz	419.57 g/14.8 oz	669.05 g/23.6 oz
UPC	812257018659	812257018666	812257018673

# 68° Series™ Waterproof Eyepieces

The 68° eyepieces are designed for those who prefer longer eye relief but still want to enjoy a field of view that is wider than a classic Plossl or Orthoscopic style eyepiece. If you wear eyeglasses and either want or need to keep them on while observing, the extra long eye relief built into the 68° models will allow you to do that and still observe comfortably. As you can see from the chart shown below, the eye relief in this series starts at almost 12mm on the 16mm model and increases quickly until it reaches a maximum of 31mm on the 40mm model. There are four Explore Scientific 68° eyepieces - the 24mm, 28mm, 34mm and 40mm - that sport an eye relief of over 18mm, which is perfect for eyeglass wearers.

- + Optimized Optical Design
- + Exotic Glass Combinations for Optimum Results
- + Durable Coatings & Finishing Touches
- + Waterproof, Fog-Proof Housing
- + Wide Field Experience
- + Tapered 2" Barrel for Extra Security
- + Optional Focal Extenders for Extra Magnification
- + Fully multi-coated and edge-blackened to produce maximum contrast



**ARGON PURGED**



**WATERPROOF**

Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.



**EPWP6816-01**

**EPWP6820-01**



**EPWP6824-01**

**EPWP6828-01**



**EPWP6834-01**

**EPWP6840-01**

Model Number	EPWP6816-01	EPWP6820-01	EPWP6824-01	EPWP6828-01	EPWP6834-01	EPWP6840-01
Description	68° 16mm EP	68° 20mm EP	68° 24mm EP	68° 28mm EP	68° 34mm EP	68° 40mm EP
Field Stop Diameter	18.2mm	22.8mm	27.2mm	31.8mm	38.6mm	52.2mm
Diameter	1.25"	1.25"	1.25"	1.25"	1.25"	1.25"
Eye Relief	11.9mm	15.3mm	18.4mm	21.6mm	26.4mm	31mm
Elements	6 in 4 groups	6 in 4 groups				
Size	(L) 61.9mm x (W) 43.2mm	(L) 69.6mm x (W) 50.3mm	(L) 75.6mm x (W) 56.2mm	(L) 91.4mm x (W) 61.3mm	(L) 100.8mm x (W) 69.6mm	(L) 114.2mm x (W) 80.3mm
Weight	158 g/5.5 oz	247 g/8.7 oz	329 g/11.6 oz	458 g/16.1 oz	685 g/24.1 oz	998 g/24.1 oz
UPC	812257010547	812257010530	812257010523	812257010516	812257010509	812257010493

# 82° Series™ Waterproof Eyepieces

With their 82° apparent field of view, these eyepieces immerse you in a very comfortable ultra-wide field that naturally promotes relaxation at the eyepiece. When you relax your eyes and take in the scene presented before you, it is much easier to observe for longer periods of time, and details begin to materialize that may not have become apparent to you at first glance. Another great benefit of ultra-wide eyepieces is the ease with which you can gaze, not directly at an object, but slightly to either side. This skill, called using averted vision, is especially helpful when observing faint objects, because using averted vision puts the image on a part of your eye that is more sensitive to light, allowing you to see fainter images. Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.

- + Fully multi-coated and edge-blackened to produce maximum contrast
- + Exotic Glass Combinations for Optimum Results
- + Durable Coatings & Finishing Touches
- + Tapered 2" Barrel for Extra Security

- + Waterproof, Fog-Proof Housing
- + Ultra-Wide Field Experience
- + Optimized Optical Design
- + Optional Focal Extenders for Extra Magnification



**WATERPROOF**



**ARGON PURGED**



**EPWP8245LE-01**



**EPWP8265LE-01**



**EPWP8285LE-01**



**EPWP8211-01**



**EPWP8214-01**



**EPWP8218-01**



**EPWP8224-01**



**EPWP8230-01**

Model Number	EPWP8245LE-01	EPWP8265LE-01	EPWP8285LE-01
Description	Large Eye Relief 82° 4.5mm EP	Large Eye Relief 82° 6.5mm EP	Large Eye Relief 82° 8.5mm EP
Field Stop Diameter	28mm	29.4mm	30.5mm
Diameter	1.25"	1.25"	1.25"
Eye Relief	15.9mm	16.8mm	15mm
Elements	7 in 5 groups	7 in 5 groups	7 in 5 groups
Size	(L) 106mm x (W) 50mm	(L) 106mm x (W) 50mm	(L) 106mm x (W) 50mm
Weight	275 g/9.7 oz	325 g/11.5 oz	280 g/9.9 oz
UPC	811803030213	811803030220	811803030237

Model Number	EPWP8211-01	EPWP8214-01	EPWP8218-01	EPWP8224-01	EPWP8230-01
Description	82° 11mm EP	82° 14mm EP	82° 18mm EP	82° 24mm EP	82° 30mm EP
Field Stop Diameter	15.9mm	18.9mm	25.3mm	33.5mm	43mm
Diameter	1.25"	1.25"	2"	2"	2"
Eye Relief	21.6mm	15.6mm	19mm	17.5mm	21.6mm
Elements	7 in 4 groups	7 in 4 groups			
Size	(L) 87mm x (W) 48mm	(L) 83mm x (W) 48mm	(L) 89mm x (W) 56mm	(L) 110mm x (W) 70mm	(L) 131mm x (W) 82mm
Weight	279 g/9.8 oz	256 g/9 oz	390 g/13.7 oz	704 g/24.8 oz	1,007 g/35.5 oz
UPC	812257014606	812257014613	812257014620	812257014637	812257014644

# 100° Series™ Waterproof Eyepieces

These hyper-wide class oculars can transform your visual astronomy experience. You may be startled at the amazingly wide expanse of inky black sky you behold the first time you bring your eye to a 100° Series eyepiece, and, after awhile, you may even forget that you have an eyepiece between you and the universe! With an apparent field of view that is close to the maximum for hyper-wide eyepiece design, objects are not only easier to locate, but for non-driven telescopes the object will stay in the field of view for a very long time before any adjustments need to be made.

- + Fully multi-coated and edge-blackened to produce maximum contrast
- + Waterproof, Fog-Proof Housing
- + Durable Coating & Finishing Touches
- + Tapered Barrel for Extra Security
- + Hyper-Wide Field Experience
- + Optimized Optical Design
- + Exotic Glass Combinations for Optimum Results
- + Optional Focal Extenders for Extra Magnification



**ARGON PURGED**



**WATERPROOF**

Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.



**EPWP10055-01**



**EPWP1009-01**



**EPWP10014-01**



**EPWP10020-00**



**EPWP10025-01**



**EPWP10030-01**

Model Number	EPWP10055-01	EPWP1009-01	EPWP10014-01	EPWP10020-00	EPWP10025-01	EPWP10030-01
Description	100° 5.5mm EP	100° 9mm EP	100° 14mm EP	100° 20mm EP	100° 25mm EP	100° 30mm EP
Field Stop Diameter	9.6mm	15.7mm	24.4mm	34.8mm	41mm	52.2mm
Diameter	2"	2"	2"	2"	2"	3"
Eye Relief	10.5mm	12.5mm	14.5mm	14.5mm	14.5mm	19mm
Elements	9	9	9	9	9	9
Size	(L) 150mm x (W) 56mm	(L) 145mm x (W) 60mm	(L) 157mm x (W) 70mm	(L) 156mm x (W) 70mm	(L) 140mm x (W) 73mm	(L) 200mm x (W) 107mm
Weight	612 g/56 oz	602 g/21.2 oz	836 g/29.4 oz	968 g/38.1 oz	1,177 g/41.5 oz	2,353 g/82.9 oz
UPC	812257014934	812257014651	812257014668	812257010745	812257013852	812257013869

## 92° Series™ Waterproof Eyepieces

The Explore Scientific 92° Series eyepieces are hyper-wide class oculars that can transform your visual astronomy experience. You may be startled at the amazingly wide expanse of inky black sky you behold the first time you bring your eye to a 92° Series eyepiece, and after awhile, you may even forget that you have an eyepiece between you and the universe!

- + Extra Long Eye Relief Design for 92° Series
- + Fully multi-coated and edge blackened to produce maximum contrast
- + Exotic Glass Combinations for Optimum Results.
- + Durable Coatings & Finishing Touches.
- + Tapered 2" Barrel for Extra Security.
- + Waterproof, Fog-Proof Housing.
- + Hyper-Wide Field Experience.
- + Optimized Optical Design.
- + Optional Focal Extenders for Extra Magnification.



EPWP9212-01



EPWP9217-01

## 120° Series™ Waterproof Eyepieces

With our widest apparent field of view, our 120 degree eyepieces will submerge you in stunning night sky views. Built on the same waterproof eyepiece concept, these mega wide eyepieces provide unparalleled wide field views.



ARGON PURGED



WATERPROOF



EPWP12009-01

Each eyepiece is O-ring sealed and purged with an inert gas to create a waterproof environment.

Model Number	EPWP9212-01	EPWP9217-01	EPWP12009-01
Description	92° 12mm EP	92° 17mm EP	120° 9mm EP
Field Stop Diameter	27.46mm	27.46mm	15.7mm
Diameter	2"	2"	2"
Eye Relief	19.92mm	20.02mm	12.5mm
Elements	8 in 6 groups	8 in 6 groups	12 in 8 groups
Size	(L) 152mm x (W) 70mm	(L) 152mm x (W) 69.8mm	(L) 145mm x (W) 60mm
Weight	158.75 g/76.2 oz	158.75 g/76.2 oz	602 g/21.2 oz
UPC	812257017386	812257017379	812257013876

# Twilight Series Mounts

The Twilight Series of mounts includes the Twilight Nano, Twilight I and Twilight II models. The Twilight Nano is a light-duty alt-azimuth mount and tripod designed for modest sized telescopes weighing no more than 14 pounds. The Twilight I is a light-to-medium-duty alt-azimuth mount and tripod designed to quickly and easily accept small to medium sized refractors weight no more than 15 pounds. The Twilight II mount is all about more – more weight capacity, more stability, and more telescopes! Yes, you can ride two telescopes on this mount, and it handles them with ease. The weight capacity is approximately 60 pounds.



Model Number	FL-TWINANOT1-00	MAZ01-00
Description	Twilight Nano Adjustable Alt-Azimuth Mount with Slow Motion	Twilight I Adjustable Alt-Azimuth Mount with Slow Motion
Tripod Fully Collapsed No Mount Head	25.5"	29.5"
Tripod Fully Collapsed w/ Head	42"	42"
Tripod Open, Retracted Legs, No Mount Head	25"	25"
Tripod Open, Legs Fully Extended, No Mount Head	42"	42"
Tripod Open, Retracted Legs w/ The Mount Head	38.5" at Highest Point, 36" to the Center of the Mounting Bracket	38.5" at Highest Point, 36" to the Center of the Mounting Bracket
Tripod Open, Legs Fully Extended w/ the Mount Head	45" at Highest Point	55.5" at Highest Point
Mount Weight Capacity	14 lbs	15 lbs
Weight	8lb / 3.6kg	16.7lb / 7.6kg
UPC	812257018291	812257010622

# Twilight Tripods

**The Twilight Medium Duty Tripod (TL-ST2W-00/TL-ST2B-00)** is an excellent option for those looking to enhance the stability and weight capacity of their iEXOS-100 set-up. Available in both black and white, this tripod has fully adjustable 1.5-inch stainless legs that are secured with a die cast aluminum spreader tray and threaded T-bar to create a stable foundation for your observing or imaging set-up.

**The Twilight Heavy Duty Tripod (TL-ST3W-00/TL-ST3B-00)** is an excellent option for those looking to increase the stability and weight capacity of their Twilight I or iEXOS-100 mounts. Available in both black and white, this tripod has fully adjustable 2-inch stainless legs that are secured with a die cast aluminum spreader tray and threaded T-bar to create a stable foundation for your observing or imaging set-up.

**The Azimuth Adjuster Adapter (ES100AZADJ)** is designed for use on the Twilight Medium Duty or Twilight Heavy Duty tripods. This adapter also works with the Light Duty tripod that comes with the iEXOS-100 tracking goto system, but requires modification of the tripod base.



**TL-ST2W-00**



**TL-ST2B-00**



**TL-ST3W-00**



**TL-ST3B-00**



**ES100AZADJ**

Model Number	ES100AZADJ	TL-ST2B-00	TL-ST2W-00	TL-ST3B-00	TL-ST3W-00
Description	iExos-100 AZ ADJ Adapter ST2/3 Tripod	Explore Scientific Tripod 1.5" Legs - Black	Explore Scientific Tripod 1.5" Legs - White	Explore Scientific Tripod 2" Legs - Black	Explore Scientific Tripod 2" Legs - White
Tripod Fully Collapsed No Mount Head	-	29.5 inches	29.5 inches	31.5 inches	31.5 inches
Tripod Open, Retracted Legs, No Mount Head	-	25 inches	25 inches	26.5 inches	26.5 inches
Tripod Open, Legs Fully Extended, No Mount Head	-	42 inches	42 inches	42.5 inches	42.5 inches
Foot Print	-	42 inches	42 inches	42.5 inches	42.5 inches
Weight	1.3lb; .59kg	11 lb; 5.0kg	11 lb; 5.0kg	13.6lb, 6.2kg	13.6lb, 6.2kg
UPC	811803031968	811803032231	811803032224	811803032248	811803032255

# GOTO Mounts

GOTO systems play an important role in the world of amateur astronomy because they ensure users spend less time searching for particular objects and more time observing and imaging. They do this by working with a variety of software platforms to move an attached telescope to a specific celestial object that is chosen by the observer from a vast database of potential targets. Designed to meet the versatile needs of astronomers of all levels, our revolutionary PMC-Eight GOTO system is a clean-slate approach to precision-motion-control systems that maximizes the potential of your optical equipment.



**ES-EXOS2GTPMCT3-01**



**ES-iEXOS-100-02**



**ES-iEXOS100-ET-02**

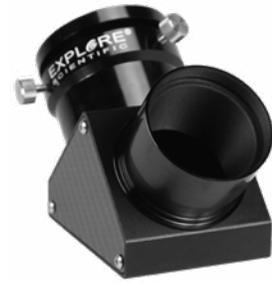


**ES-G11PMC8-00**

Model Number	ES-EXOS2GTPMCT3-01	ES-iEXOS-100-02	ES-iEXOS100-ET-02	ES-G11PMC8-00
Description	EXOS II Equatorial Mount with PMC-Eight GOTO System	iEXOS-100 Equatorial Mount with PMC-Eight Equatorial Tracker System with WiFi and Bluetooth	iEXOS Mount and Tripod HD, PMC-Eight Equatorial Tracker System with WiFi and Bluetooth, DSRL Dovetail, Upgraded Tripod, Polar Finder, Azimuth Adjuster Plate	Losmandy G-11 Mount with PMC-Eight GOTO System
Tripod Fully Collapsed No Mount Head	25.5"	25.5"	25.5"	33"
Tripod Fully Collapsed w/ Head	27"	27"	27"	
Tripod Open, Retracted Legs, No Mount Head	25"	25"	25"	
Tripod Open, Legs Fully Extended, No Mount Head	42"	42"	42"	48"
Tripod Open, Retracted Legs w/ The Mount Head	38.5" at Highest Point, 36" to the Center of the Mounting Bracket	38.5" at Highest Point, 36" to the Center of the Mounting Bracket	38.5" at Highest Point, 36" to the Center of the Mounting Bracket	33" - 48"
Tripod Open, Legs Fully Extended w/ the Mount Head	45" at Highest Point	45" at Highest Point	45" at Highest Point	48" at Highest Point
Mount Weight Capacity	Photographic - 15 lbs Visual - 19 lbs	Photographic - 15 lbs Visual - 19 lbs	Photographic - 15 lbs Visual - 19 lbs	Photographic - 60 lbs
Weight	33lb / 15kg	14.8lb / 6.7kg	16.6lb / 7.5kg	33 lb / 15 kg (Mount) 35 lb / 15.9 kg (Tripod)
UPC	812257018321	811803030541	811803032873	812257016792

# Diagonals

A diagonal allows for a comfortable viewing experience by using a mirror to direct the light at a 90° angle toward the eyepiece, which is positioned perpendicular to the OTA making the image more accessible. Equipped to fit both 1.25" and 2" eyepieces, our diagonals house a precision-polished, dielectric-coated mirror that is 99% reflective to maximize light transmission.



**DD02-00CF**



**DD03-01CF**

# Cases

Your telescope is much more than an observation aid. It is your personal pathway to the stars, and protecting it while it is in storage or transit should be a priority. Designed especially for the ED127, ED127CF, DAR127 and DAR152, this soft-sided carrying case also holds eyepieces and accessories as well as some of our mounts without a scope. Inside, the light gray colored nylon features multiple velcro compartments designed to carefully cradle and easily organize the contents. Outside, its soft-sided polyester outer shell has a reinforced back and sides, a shoulder strap with Explore Scientific embroidered logo pad and hand straps for grab-and-go convenience.



**ES-EPCASE-01**



**ES-BPCC-01**



**ES-SSCC-03**

Model Number	DD02-00CF	DD03-01CF
Description	2-inch 99% Enhanced Mirror Diagonal	3-inch 99% Enhanced Mirror Diagonal
Diameter	2"	3"
Size	(L) 104.8mm x (W) 60.9mm x (H) 127mm	(L) 104.8mm x (W) 60.9mm x (H) 127mm
Weight	1 lb/ 0.45kg	2 lbs/ 0.90kg
UPC	812257010264	812257014774

Model Number	ES-EPCASE-01	ES-BPCC-01	ES-SSCC-03
Description	Small Soft-Sided Eyepiece Carrying Case	Backpack Carrying Case	Large Soft-Sided Carrying Case
Size	(L) 8.5in x (W) 7.5in x (H) 3in	Internal (H) 18in x (W) 15in	(L) 44in x (W) 8in x (H) 15in
Weight	.67 lb/ 0.30kg		4 lbs/ 1.8kg
UPC	811803031661	811803032651	812257016570

# Focal Extenders

A good Focal Extender adds some real versatility to your telescope accessory line-up. First of all, it allows you to increase the magnification of any eyepiece with the same barrel size that you already own. In other words, 3 eyepieces offer 6 magnification choices with the addition of a focal extender.



**EPWP5203-01**



**FE05-125**

# HR Coma Corrector

Our 2" coma corrector can help you minimize or even eliminate image aberrations even in fast Newtonians. It offers multi-coated lenses, a black-anodized aluminum barrel with spacer markings and a textured rubber grip. It comes with two adapters (.75" and 1") to secure to your T adapter and a protective cap.



**HRCC02-00**



**FFFR507X-00**



**ES-FF2F5/F7**

# Field Flattener

This multi-faceted accessory is designed for astrophotography. As a field flattener, this piece addresses edge-of-field aberrations caused by curved focal planes. As a focal reducer, it will reduce your f-ratio by .7 for a wider field of view, brighter images and less exposure time.



**510365**



**510364**

Model Number	FE02-125	FE03-125	FE05-125	FE02-020	FE03-020
Description	2x Focal Extender	3x Focal Extender	5x Focal Extender	2x Focal Extender	3x Focal Extender
Diameter	1.25"	1.25"	1.25"	2"	2"
Size	(L) 96mm x (W) 45mm	(L) 93mm x (W) 45mm	(L) 96mm x (W) 45mm	(L) 118mm x (W) 663mm	(L) 125mm x (W) 66mm
Weight	260 g/9.1 oz	249 g/8.7 oz	260 g/9.2 oz	204.1 g/7.2 oz	623.69 g/22 oz
UPC	812257010417	812257010394	812257010387	812257010400	812257018567

Model Number	510369	49-21350	49-20000
Description	Field Flattener Adapter Canon DSLR 1.5mm Light Path	Field Flattener Adapter Canon EOS	Field Flattener Adapter - Nikon
Weight			
UPC	4007922039527	4007922007212	4007922001968

Model Number	510365	510364	510366	FFFR507X-00	HRCC02-00	ES-FF2F5/F7
Description	Explore Scientific Adapter 2" Barrel on T2	Explore Scientific 3" to 2" for FFFR507X	Explore Scientific Adapts FFFR507X to 2.5" Hex Focuser	3" Field Flattener .7x Focal	2" Coma Corrector	Field Flattener f/5 to f/7
Diameter	2"	3" - 2"	2.5"	3"	2"	2"
Weight	68 g/2.4 oz	68 g/2.4 oz	635 g/22.4 oz	635 g/22 oz	635 g/22 oz	635 g/22 oz
UPC	4007922006444	4007922000855	812257018871	812257014408	812257014729	811803034297

# Filters

A filter is another tool amateur astronomers can use to combat the ill effects of stray light and increase contrast to the point that nebulae and galaxies pop against the inky night sky. These filters work by reflecting away certain wavelengths of light, such as those commonly associated with streetlights. By blocking wavelengths like these, others get the chance to truly shine.



Scan Here



To view more filters online



310225



310220



310215



310210



310235



310230



310205



310200

Model Number	310245	310205	310215	310225	310235
Description	Neutral Density Filter	Nebula Filter 1.25" O-III	Nebula Filter 1.25" UHC	Nebula Filter 1.25" CLS	Nebula Filter 1.25" H-Beta
Diameter	1.25"	1.25"	1.25"	1.25"	1.25"
Filter	Color Filter #ND96 Moon Filter (0.9 Density; Transmission 13%)	483nm to 511nm with peak at 496nm. Transmission 96.7%	458nm to 508nm with peak at 488nm. Transmission 96.7%	436nm to 536nm with peak at 488nm. Transmission 98.3%	478nm to 496nm with peak at 489nm. Transmission 94.5%
UPC	812257017201	812257017171	812257017164	812257017195	812257017188

Model Number	310240	310200	310210	310220	310230
Description	Neutral Density Filter	Nebula Filter 2" O-III	Nebula Filter 2" UHC	Nebula Filter 2"	Nebula Filter 2" H-Beta
Diameter	2"	2"	2"	2"	2"
Filter	Color Filter #ND96 Moon Filter (0.9 Density; Transmission 13%)	483nm to 511nm with peak at 496nm. Transmission 96.7%	458nm to 508nm with peak at 488nm. Transmission 96.7%	436nm to 536nm with peak at 488nm. Transmission 98.3%	478nm to 496nm with peak at 489nm. Transmission 94.5%
UPC	812257017256	812257017225	812257017218	812257017249	812257017232

# Finder Scopes and Brackets

Our finder scopes, which are essentially small 8x50 refractors, offer the low magnification and pinpointing crosshairs you need to quickly orient your telescope to a particular object or area of the sky.

Although they share a common mission to provide easy guidance, we do offer three distinct models. They are the basic Non-Illuminated Straight Finder Scope, an Illuminated Straight Finder Scope and a Polar Illuminated Right-Angle Finder Scope.

The Explore Scientific Hybrid Finder Scope Base is designed to accept all legacy Explore Scientific/Meade finder scope brackets and mini dovetail-type (e.g. Synta, Vixen, Orion and Celestron) finder scope brackets.



**VF0850S**



**VFEI0850-01**



**ES-FB2N1-00**



**FNDRRGSTALL**



**FNDRRGSTSD**



**VFEI0850-RA**

Model Number	VF0850S	VFEI0850-01	VFEI0850-RA
Description	8x50 Straight Finder Scope with Bracket (White)	8x50 Straight Correct-Image Finder Scope with Illuminated Reticle	8x50 Right-Angle Correct-Image Finder Scope with Polar Illuminated Reticle
Field of View	6°	6°	7°
Size	(L) 8.5in x (W) 2.45in x (H) 2.25in	(L) 8.5in x (W) 2.45in x (H) 2.25in	(L) 7.87in x (W) 2.44in x (H) 4.4in
Weight	612 g/21 oz	454 g/16 oz	635 g/22 oz
UPC	812257010752	812257011971	812257010257

Model Number	ES-FB2N1-00	FNDRBASEBLK	FNDRBASE-ESSEN	FNDRRGSTSD	FNDRRGSTALL	FNDRRGGRA	FNDRILLUM	FNDRILLUM-02
Description	Hybrid Finder Scope Base	Black Finder Base	T Shaped Finder Base	Standard Height Finder Scope Rings	Tall Finder Scope Rings	Right Angle Finder Scope Rings	Finder Scope Illuminator ONLY	Finder Scope Illuminator-II ONLY
Diameter	-	-	-	50mm	50mm	50mm	-	-
Size	-	(L) 50mm x (W) 51mm x (H) 25mm	(L) 50mm x (W) 51mm x (H) 25mm	(L) 73mm x (W) 61mm x (H) 93mm	(L) 73mm x (W) 61mm x (H) 115mm	(L) 50mm x (W) 61mm x (H) 110mm	(L) 41.1mm x (W) 17.5mm	(L) 121mm x (W) 17.4mm
Weight	-	1.4 oz	1.29 oz	3.9 oz	7 oz	3.9 oz	1 oz	1.5 oz
UPC	811803033672	812257013395	812257014781	812257013449	812257013906	812257013913	812257013920	812257018792

# ReflexSight™

## Features

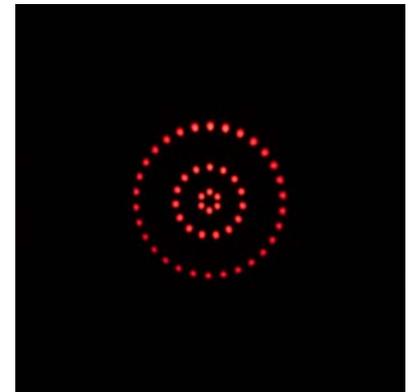
- New “multi-dot” reticle design in standard 4.0 degree, 2.0 degree, and 0.5 degree circular patterns that prevents blocking stars in the field.
- Fits on common “mini-Vixen-style dovetail” viewfinder bases which will allow the user to attach the device on almost any telescope without modification to the telescope itself.
- 1/4 x 20 threaded adapter is built into the base to allow the device to attach onto a variety of devices such as piggyback camera adapters, photo tripods, etc.
- Smooth body style eliminates sharp corners and reduces snagging.
- Easy to access battery compartment.
- Comes complete with optical cover.
- Operates on two lightweight AAA batteries (Included).
- Low power draw provides long continuous operating time.
- Large, continuously adjustable brightness, smooth-head, control knob with knurl, that can be operated with gloves on. Full-off click switch.
- Rear-facing, no-tool, three-point parallax smooth-head adjustment knobs with knurl, that can be operated with gloves on.
- Coated lens for maximum reticle projection performance.
- Compact size.



ES-REFLECT-00



Multi-dot Reticle Design



Model Number	ES-REFLECT-00
Description	ReflectSight™
Housing	Plastic Housing
Target	Target Dots Reflect Sharply at 9.8 MOA
Lens	Reflective Coating
Water Resistant	Yes
LED	Long Lasting LED
Dimensions	Sight: 7in L x 1.8in W x 5in H Projection Glass: 1.375in W x 2.165in H
Weight	0.55lb (249 g)
Construction	Metal, Glass, Plastic
Battery	(2) AAA Required (included)
UPC	811803034013

# Equatorial Mount Accessories

Ever been frustrated by the standard illuminator? Is the battery always dead when you turn it on? The Illuminator II now offers exceptional battery life for our VFEI0850-01 and VFEI0850-RA finder scopes OR most any other illuminated finder with a standard illuminator.

The advantage of the Illuminator II is the power provided by 2 alkaline AAA batteries (batteries not included) which will last AT LEAST 100X longer than the traditional illuminator. The Illuminator II also offers variable control from ultra-dim to very intense for proper illumination of the markings in the finder scope.

The PFXOS2 Polar Finder Scope has Polar Assist markings to help you efficiently accomplish a proper polar alignment. This polar scope works with the BR-EXOS2, FL-EXOS2GT, BR-EXOS2GT, EXOS2GT with PMC-8 mounts.



**PFXOS2**



**EXOS2PFI**



**FNDRILLUM-02**

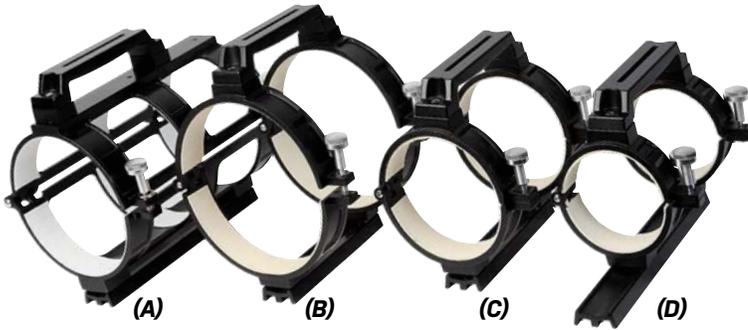
Model Number	EXOS2GTAC	EXOS2GTDC	PFXOS2	FNDRILLUM-02	EXOS2PFI	EXOS2CW
Description	Universal 12V AC Power Supply for EXOS-2GT	DC Car Adapter Cable for EXOS-2GT	Illuminated Polar Finder for EXOS-2GT	Illuminator II for Finder Scopes	Replacement Illuminator Polar Finder for EXOS-2GT	Counterweight 9.9 lbs for EXOS-2
Input	100V - 240V, 1.5A, 50/60Hz	-	N/A	2x AAA	2x LR41	N/A
Output	12V - 1A, 2A, 3A, 4A	12V/7.5m	N/A	N/A	N/A	N/A
UPC	812257016587	812257016594	812257018796	812257018792	812257016549	812257016532

# Saddle Plates

A saddle plate is not the most exciting astronomical accessory in the world, but it is one of the most important when it comes to the stability and safety of your telescope system. Just like a saddle is usually the only piece of equipment between you and a horse, a telescope saddle plate is often times the only piece of hardware used to attach your optical tube assembly to its mount.



VXNLG



(A) *TEDMN152CRDL*    (B) *TED127CRDL*    (C) *TED102CFRDL*  
(A) *TED152CFRDL*    (B) *TED127CFRDL*    (D) *TED102CRDL*



DAR152CRDL

# Cradle Rings

Explore Scientific cradle assemblies fit their appointed telescope OTA snugly, yet protect the delicate surface of the tube. The hinged ring system separates easily and locks securely back into place once the OTA has been nestled inside the rings. Each extruded aluminum ring set is topped with a slotted carry handle so that it is easy to move your telescope around when it is off the mount. Attach a camera, guidescope, or other accessory to the top of the handle with standard 1/4-20 bolts. Each cradle ring assembly comes with a dovetail plate for quick attachment to a variety of "Vixen-style" mounts.

Model Number	TED80CRDL	TED102CRDL	TED102CFRDL	TED127CRDL
Description	Saddle Plate For ED80mm	Cradle For White 102mm	Cradle For Carbon Fiber 102mm	Cradle For White 127mm
Length	5.125in / 130mm	7.9in / 200mm	8in / 203mm	8in / 203mm
Inside Diameter	-	3.9in - 4.1in 99.06mm - 105mm	4.65in - 4.82in 118.11mm - 122.43mm	5.2in / 131mm
UPC	812257013944	812257011889	812257016686	812257011933

Model Number	TED127CFRDL	DAR152CRDL	TEDMN152CRDL	TED152CFRDL
Description	Cradle For Carbon Fiber 127mm	Cradle For DAR 152mm	Cradle For Comet Hunter 152mm	Cradle For Carbon Fiber ED152mm
Length	8in / 203mm	8in / 203mm	7.75in / 197mm	7.75in / 197mm
Inside Diameter	5.7in / 145mm	6.1in / 154mm	6.9in / 177mm	6.9in / 177mm
UPC	812257016693	812257016709	812257011926	812257013937

Model Number	VXNSML	VXNMD	VXNLG
Description	Short Vixen-Style Saddle Plate	Medium Vixen-Style Saddle Plate	Large Vixen-Style Saddle Plate
Dimensions	5.125in / 30mm	7.5in / 190mm	11in / 279mm
UPC	812257016631	812257016648	812257016655

# Miscellaneous

The new binoviewer is a 1.25-inch device that uses two matching eyepieces to give you AWESOME two-eyed views through your telescope.

The Explore Scientific USB Power Bank with Red LED Flashlight, you will have power to spare for your telescope mount, smart devices, cameras or other equipment in the field. This reliable rechargeable Lithium-Ion battery has a capacity of 8300 mAh with an output of 12v that connects to a supplied power cord with spring-loaded power plugs with 5.5mm x 2.5mm to 5.5mm x 2.1mm connectors. The 5v output from the USB port can power your devices with a standard user-supplied USB cable. The Explore Scientific USB Power Bank with Red LED Flashlight has an operating range of a teeth chattering -4 degrees to a blazing 140 degrees Fahrenheit!



**ES-BINOV**



**ES-TPS018**



**DSLRCDA**



**ES-PBFL-01**



**ES-FL1001**



**PFiEXOS100**

Model Number	ES-PBFL-01	PFiEXOS100	DSLRCDA	ES-FL1001
Description	Explore Scientific USB Power Bank with Red LED Flashlight	Polar Scope and Bracket for iEXOS100 Mount	Explore Scientific Camera Dovetail Plate	Astro R-Lite Red Flashlight
Size	48.5 x 91 x 158 mm	200 x 150 x 150 mm	280 x 46 x 15 mm	92 x 25 x 25 mm
Weight	1.4 lbs/635 grams	0.49 lbs/220 grams	0.53 lbs/241 grams	0.17 lbs/76.5 grams
UPC	812257019977	811803032866	811803032590	811803030114

Model Number	ES-BINOV	ES-TPS018	ES-CW22-00	ES-CW22
Description	BinoViewer for Telescopes	Tirion Double -Sided Multi-Latitude Planisphere	iEXOS100 2.2lb Counterweight, Black with Silver Stripe	iEXOS100 2.2lb Counterweight, White
Weight			2.2 lbs/998 grams	2.2 lbs/998 grams
UPC	811803034280	811803030534	811803030114	

## Focusers and Accessories

The focuser is one of the most important mechanical components of your telescope because it is the tool you use to find and hold that perfect crisp image. Explore Scientific offers various styles of focusers, including rack and pinion, Crayford and the premium 3" Feather Touch model. All of these dual-speed focusers are built to meet high standards of precision and functionality. They all offer features like fine and coarse focusing and locking and tension screws that avoid unintended adjustments or slipping of the drawtube.



**NEW!**

### 3" Self-Centering Twist-Lock Focuser with Brake

This heavy-duty focuser has a self-centering compression system that applies pressure equally to the draw tube, guaranteeing a tight, secure fit. This uniform pressure creates a stable base for an imaging setup and prevents flex, tilt and image shift. The draw tube, which is long enough to eliminate the need for extension tubes, is moved by a helical rack-and-pinion system lubricated with marine-grade PTFE silicone for an easy glide with maximum precision and minimal backlash. The interior of the draw tube has a diameter of 3 inches that is lined with multiple baffles to reduce reflection.

**ES-FOC3**





**FOCEDCRBN-01**



**FOCDAR-00**



**FOCCMTHR-00**

Model Number	ES-FOC3	FOCEDAPO-00	FOCDAR-00	FOCCMTHR-00	FOCEDCRBN-01	ESRPEXT1	ESRPEXT2	ESHEXEXT2
Description	3" Self-Centering Twist-Lock Focuser with Brake	2" ED APO Replacement Focuser	2" Achromatic Replacement Focuser	2" Comet Hunter Replacement Fuser with Extension Tubes	2" ED Replacement Focuser for ED80CF	Rack and Pinion Focuser Extension Tube 1" Extension	Rack and Pinion Focuser Extension Tube 2" Extension	Rack and Pinion Focuser 2.5" Extension Tube
Diameter	2" - 3"	2"	2"	2"	2"	1"	2"	2.5"
Length	-	120.7mm	201mm	149.2mm	104.8mm	N/A	N/A	-
Weight	5.7lb / 2.58kg	2.0lb / .91kg	1.75lb / .79kg	1.8lb / .82kg	1.5lb / .68kg	.6 lb/.27 kg	.9 lb/.41 kg	-
UPC	811803035683	812257011841	812257013883	812257011858	812257013890	812257015535	812257015542	811803032944

# Large Binoculars

Giant binocular for observing the starry sky, nature and landscape. Observe the beauty of the starry sky at night and distant objects in nature during the day. Globular star clusters, glowing gas nebulae, the moon with its craters and even planets can be observed wonderfully on a clear night. But also all other distant things in nature and landscape, even ships and airplanes can be seen in detail. With the all-round binoculars of the EXPLORE SCIENTIFIC BT Series, you can get up very close. Thanks to the large, light-gathering lenses and the professional coatings on all lens surfaces, these binoculars produce bright and brilliant images even at night and at twilight, providing a special viewing pleasure. The comfortable 45 degree viewing angle allows fatigue-free use even when the binoculars are tilted strongly.



**01-14230**



**01-14200**



**01-14210**



**01-14220**

Model Number	01-14200	01-14210	01-14220	01-14230
Description	BT-70 SF Large Binoculars	BT-82 SF Large Binoculars	BT-100 SF Large Binoculars	BT-120 SF Large Binoculars
Optical Design	Achromatic Refractor Porro	Achromatic Refractor Porro	Achromatic Refractor Porro	Achromatic Refractor Porro
Mirror / Lens Diameter	70 mm	82 mm	100 mm	120 mm
Focal Length	400 mm	470 mm	550 mm	660 mm
Focal Ratio	5.7	5.7	5.5	5.5
Apparent Facial Field	62 degrees	62 degrees	62 degrees	62 degrees
Type of Remuneration	Enhanced Multilayer Desposition (EMD)	Enhanced Multilayer Desposition (EMD)	Enhanced Multilayer Desposition (EMD)	Enhanced Multilayer Desposition (EMD)
Field of View	3.1 degrees	2.6 degrees	2.3 degrees	1.8 degrees
Water Resistance	IPX6	IPX6	IPX6	IPX6
UPC	811803033917	811803033924	811803033948	811803033955

## Giant Binoculars Finder Adapter

This device allows you to attach the Explore Scientific Hybrid 2N1 finder base to our Giant Binocular Series, allowing easy pointing/aiming at your target.

**01-14BR**



# U-mount with Tripod for Large Binoculars

The new EXPLORE SCIENTIFIC U-mount with field tripod has been specially designed for the EXPLORE SCIENTIFIC BT large binoculars series, but also fits most other binoculars with a lens diameter of 70 to 120mm that have a 1/4 inch photo thread connection on the underside. With the U-mount there is no shaking or annoying vibrations, the combination is as if made from one piece and provides unadulterated observation fun in all setting positions of the binoculars.



01-14300



Model Number	01-14300
Description	U-mount with tripod for large binoculars
Dimensions	(L) 1000 mm x (W) 1000 mm x (H) 1400mm
Total net weight	11300 g
Housing material	Magnesium
UPC	811803033931

## G400 & G600 Series Binoculars



ES-10843 / ES-11043



ES-11051



ES-20843 / ES-21043



ES-20856



Model Number	ES-10843	ES-11043	ES-11051	ES-20843	ES-21043	ES-20856
Description	G400   8 x 42 Binoculars	G400   10 x 42 Binoculars	G400   10 x 50 Binoculars	G600   8 x 42 ED Binoculars	G600   10 x 42 ED Binoculars	G600   8 x 56 ED Binoculars
Field of View	394ft at 1000 yards	325ft at 1000 yards	325ft at 1000 yards	372ft at 1000 yards	319ft at 1000 yards	335ft at 1000 yards
UPC	811803035058	811803035065	811803035072	811803034983	811803034990	811803035003

# Solar Eclipse Gear

Watch the Annular Eclipse Event on October 14th, 2023 in safety, comfort, and style. Made with an advanced impregnated polymer filter material. These safe, filtered solar viewing glasses are the ultimate in protection, and produce a natural yellow-orange solar image. The metallic polymer filter material used in these glasses are safety tested to extremely tight requirements.

Explore Scientific's Sun Catcher Variable Large Aperture Solar Filters are available in many sizes to work on most telescopes from 70mm up to 12-inch SCTs, and of course all Explore FirstLight, and Explore Scientific telescopes.

Whether you're looking to delve into the details of our solar system or explore inspiring deep sky treasures, the versatile FirstLight series has an observing package that will fit your individual needs. Each of the combinations in this new line comes complete with all of the essentials: a telescope, a sturdy mount, solar filter, an eyepiece and a red dot viewfinder.



**SC70/80-00 • SC80/102-00  
SC11/12-00 • SC127-00**

**88-70005-4**



**ES-FLAR80640CF-1EXOS**

Model Number	88-70005-4	SC70/80-00 • SC80/102-00 SC11/12-00 • SC127-00	ES-FLAR80640CF-1EXOS
Description	Sun Catcher Solar Eclipse Glasses (4-Pack Assortment)	Sun Catcher Variable Large Aperture Solar Filter	Explore FirstLight 80mm CF Telescope Go-To Tracker Combo with Solar Filter
Size			
UPC	811803035423		811803035560

# Two-Room Observatory Tent

A great solution is a portable observatory tent. Compared to their permanent-structure cousins, a tent is extremely low-cost, and can be set up almost anywhere where there is some flat space and clear view of the sky.

However, setting up a portable observatory structure can also be hassle on its own. No one wants to waste their valuable observing time on reading complex instructions while trying to figure out what pole goes where. This is why we utilized a sturdy pop-up design. Setting up the Explore Scientific Pop-Up Observatory Tent is literally only a matter of releasing the band so that the tent can “pop up” from its pack. You really don’t need to do anything else besides connect the two observatory rooms with a velcro seam and peg it to the ground. Thanks to this simple design, the Explore Scientific Two-Room Pop-Up Observatory sets up and tears down in only a couple of minutes, leaving you plenty of time to enjoy your weekend of astronomy.

**ES-2ROBV**



Model Number	ES-2ROBV
Description	Two Room Pop-Up GO Observatory Tent
Size	60L x 60W x 60H in (One Room) 120L x 60W x 60H in (Two Room)
UPC	811803033139



Rope



Ground Stakes



Cover

UNISTELLAR

# eQuinox 2

Item: EQUINOX2

UPC: 3701393200233

## The eQuinox 2 is the new product from Unistellar for February 2023.

Discover the universe with the **eQuinox 2** smart telescope.

Unistellar's state-of-the-art technology allows you to observe galaxies, nebulae, and planets in full colour from even the most urban areas.

Enjoy the click-and-wow telescope that is ready to explore space in just two minutes.

In a minute, the **eQuinox 2** is unpacked and at work, and a minute later you are observing the Whirlpool galaxy in full color and detail.

Thanks to partnerships with renowned scientific organizations, like the SETI Institute, as well as NASA, the eQuinox 2 will also allow you to become a citizen astronomer.

### Contributing to NASA missions

With your **eQuinox 2**, you will be able to directly contribute to key space missions.

In the US, citizen astronomers from the Unistellar community who helped NASA's Lucy mission to the Trojan asteroids were then invited by NASA to attend the launch of the mission.

Citizen astronomers from the Unistellar community were among the very few to observe and record the impact of DART, the very first space planetary defense drill in human history.





## TECHNICAL SPECS

### HARDWARE

1. Image Resolution: 6.2 Mpx
2. Digital Magnification: up to 400x (150x recommended maximum)
3. Limiting Magnitude: 18.2
4. Field of View: 34 arcmin x 47 arcmin
5. Separating Power: 2 arcsecond
6. Mirror Diameter: 114 mm
7. Focal Lens: 450 mm

8. Motorized Alt-Az Mount with extreme tracking accuracy thanks to Automated Celestial Tracking with Feedback

9. Weight: 19.8 lbs (9kg) including tripod

### STORAGE CAPACITY

64 Gb

### BATTERY LIFE

Up to 12 hours

### APP

With 5,000+ objects catalogue, and future updates

Available on iOS and Android systems

Up-to-10 users connected simultaneously

UNISTELLAR

# eVscope 2

Item: EVSCOPE2

UPC: 3701393200226

**The eVscope 2 brings power and speed together with optical expertise to deliver the most immersive space exploration experience.**

The **eVscope 2** is an all-in-one smart telescope, with amplified vision, automatic field detection and photography capabilities, all controlled by an iOS/Android App: observe over 5,000 deep-sky objects in colour, in detail, and in under a minute!

Leveraging Nikon's pioneer expertise in electronic eyepiece, and with a 7.7Mpx enhanced image resolution, the **eVscope 2** delivers the most stunning visual experience ever seen in a consumer telescope, with state of the art observing comfort, and an incredible amount of details, definition and zoom ability.

Share your observations in a click or take part in Citizen Science.



# THE UNIVERSE AWAITS



## TECHNICAL SPECS

### HARDWARE

1. Image Resolution: 7.7 Mpx
2. Digital Magnification: up to 400x (150x recommended maximum)
3. Limiting Magnitude: 18.2
4. Field of View:  
34 arcmin x 47 arcmin
5. Separating Power: 1.33 arcsecond
6. Mirror Diameter: 114 mm
7. Focal Lens: 450 mm

8. Motorized Alt-Az Mount with extreme tracking accuracy thanks to Automated Celestial Tracking with Feedback
9. Weight: 19.8 lbs (9kg) including tripod

### ELECTRONICS

Nikon Eyepiece Technology

### STORAGE CAPACITY

64 Gb

### BATTERY LIFE

Up to 10 hours

### APP

With 5,000+ objects catalogue, and future updates

Available on iOS and Android systems

Up-to-10 users connected simultaneously

# EXPLORE<sup>®</sup>

SCIENTIFIC

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Cover images provided by

Top Row:

Pinwheel Galaxy by Chuck McKowen taken with Explore Scientific ED127-FCD100 Telescope  
Rosette Nebula by Chuck McKowen taken with Explore Scientific ED127-FCD100 Telescope

Bottom Row:

Crescent Nebula by Chuck McKowen taken with Explore Scientific ED127-FCD100 Telescope  
Pinwheel Galaxy by Ross Ferguson taken with Explore Scientific ED102 Telescope  
Needle Galaxy by Ross Ferguson taken with Explore Scientific ED102 Telescope