

NCAS Loaner Scope Program

Purpose: To allow members to try out different types of equipment to determine what they enjoy most before making their own purchases. Equipment may also be used to support club outreach events.



Six Categories:

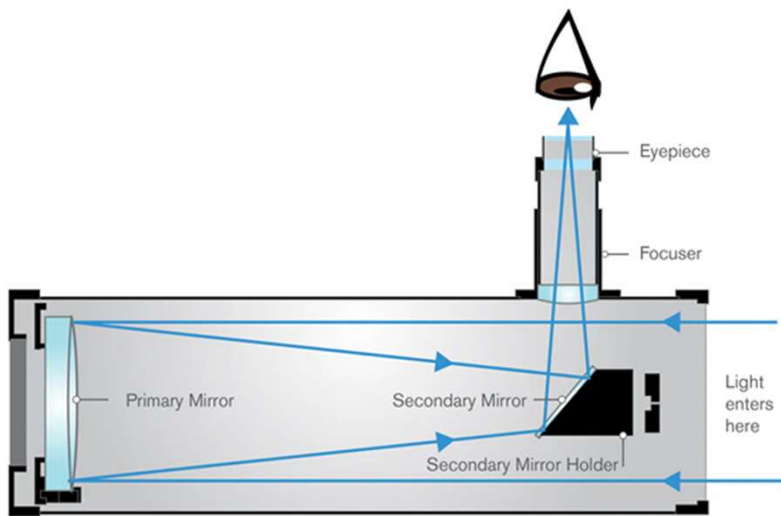
1. Newtonian Reflectors
2. Refractors
3. Catadioptric (lens/mirror) telescopes such as SCT's
4. Smart imaging scopes
5. Solar telescopes
6. Misc. equipment (mounts, planetary cameras, etc.)

NCAS Equipment Loan Policy

- Equipment is available for loan to any NCAS member in good standing.
- You must return the equipment if your membership expires or you leave the club for any reason.
- Standard loan period is 90 days, although you can keep it longer if there are no pending requests.
- 90-day period does not apply if primary usage is club outreach.
- You will be asked to sign a loan contract stating that you are responsible to return the equipment after 90 days (or when requested) and that you will be responsible if lost or damaged.
- Damage deposit applies if the member has less than 90 days with the club.
- Club is responsible for normal maintenance issues.

If you want to check out a telescope, please enquire with our Outreach Coordinator (outreach@nocoastro.org). If the scope you want is out on loan or there are multiple requests, you will be put on a waitlist.

Newtonian Reflectors



Key Advantages:

1. Most cost efficient in large apertures.
2. Short focal length for wide field of view.
3. No chromatic aberration (false color).
4. Easy to use when on simple Dobsonian or Alt-Az mounts.

Celestron 5” Star Sense Explorer DX130 Newtonian

Level:

- Beginner – Intermediate
- Smartphone App guided Alt-Az mount

Specifications:

- F5 Newtonian optical system
- 5.1”/ 130mm Aperture
- 650mm Focal Length
- Uses 1.25” or 2” eyepieces

Options Included:

- Red dot finderscope
- 25mm eyepiece
- 10 mm eyepiece



Orion Starblast 6 Tabletop Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F5 Newtonian optical system
- 6"/ 130mm Aperture
- 750mm Focal Length
- Uses 1.25" eyepieces
- 6x30mm right angle finderscope

Options Included:

- Eyepiece tray
- 25mm eyepiece
- 10 mm eyepiece



Orion Skyquest XT6 Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F8 Newtonian optical system
- 6"/ 150mm Aperture
- 1200mm Focal Length
- Uses 1.25" eyepieces
- Red dot finderscope

Options Included:

- 25mm eyepiece
- 10 mm eyepiece



Orion Skyquest XT8 Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F5.9 Newtonian optical system
- 8"/ 200mm Aperture
- 1200mm Focal Length
- Uses 1.25" or 2" eyepieces
- Red dot finderscope

Options Included:

- Eyepiece tray
- 25mm eyepiece
- 10 mm eyepiece



Skyline 8"

Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F6 Newtonian optical system
- 8"/ 200mm Aperture
- 1200mm Focal Length
- Uses 1.25" or 2" eyepieces
- Two speed focuser
- 8x60mm right angle finderscope

Options Included:

- Eyepiece tray
- 30 mm 2" eyepiece
- 9 mm 1.25" eyepiece
- 35mm extension tube



Celestron 8" Starhopper Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F6 Newtonian optical system
- 8"/ 200mm Aperture
- 1200mm Focal Length
- Uses 1.25" or 2" eyepieces
- 6x30mm right angle finderscope

Options Included:

- 25mm eyepiece
- 10 mm eyepiece



Orion Skyquest XT 10 Dobsonian

Level:

- Beginner - Intermediate

Specifications:

- F5 Newtonian optical system
- 10"/ 250mm Aperture
- 1250mm Focal Length
- Uses 1.25" or 2" eyepieces
- Red dot finderscope

Options Included:

- Eyepiece tray
- 25mm eyepiece
- 10 mm eyepiece



We have 2!

Orion Skyquest XTi 10 IntelliScope

Level:

- Intermediate

Specifications:

- F4.7 Newtonian optical system
- 10"/ 250mm Aperture
- 1175mm Focal Length
- Uses 1.25" or 2" eyepieces
- 8 x 50 right angle finderscope

Options Included:

- IntelliScope computer
- Eyepiece tray
- 25mm eyepiece
- 10 mm eyepiece



We have 2!

Once aligned, the IntelliScope computer locates objects for you. It also includes a sky tour function for the best objects visible each month.



Astro Systems 10” Truss Tube Dobsonian

Level:

- Intermediate

Specifications:

- F5 Newtonian optical system
- 10”/ 250mm Aperture
- 1250mm Focal Length
- Uses 1.25” or 2” eyepieces

Options Included:

- Finderscope
- Light shroud
- Wheelbarrow handles for loading
- Eyepieces:



Meade 12.5" Starfinder Dobsonian

Level:

- Intermediate - Advanced

Specifications:

- F4.8 Newtonian optical system
- 12.5" / 318mm Aperture
- 1525mm Focal Length
- Uses 1.25" or 2" eyepieces
- 6 x30 optical finderscope

Options Included:

- 5mm, 9.7 mm, 10mm, 25mm



Astro Systems 14” Truss Tube Dobsonian

Level:

- Advanced

Specifications:

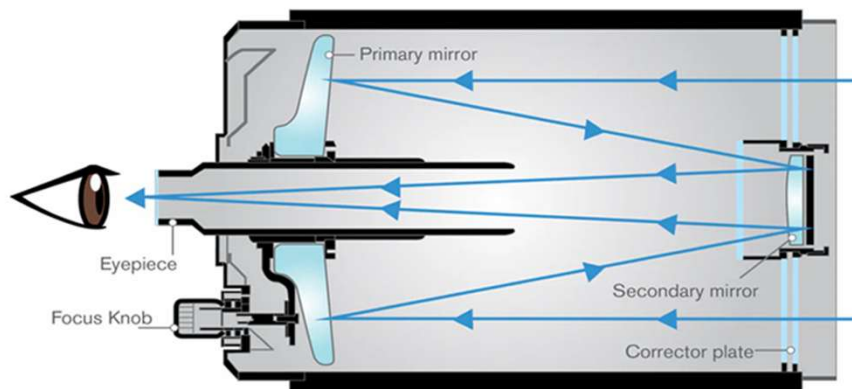
- F4.5 Newtonian optical system
- 14”/ 355mm Aperture
- 1600mm Focal Length
- Uses 1.25” or 2” eyepieces

Options Included:

- Telrad finder
- Sky Commander Digital Setting Circles
- 2x 4-pound counterweights
- Light shroud
- Scope cover
- Wheelbarrow handles & ramps for loading
- Eyepieces: TV 7mm & Barlow
- Laser collimator and Cheshire eyepiece



Catadioptric Reflectors (Mirror/Lens)



Schmidt-Cassegrain (SCT) Optical System

Key Advantages:

1. Folded optical path gives short tube for easy mounting and transport.
2. No chromatic aberration (no false color).
3. Long focal length is good for smaller objects.

Meade ETX-90EC Compact Go-To Telescope

Level:

- Intermediate

Specifications:

- F13.5 Maksutov-Cassegrain Optical System
- 90mm Aperture
- 1250mm Focal Length
- Uses 1.25" eyepieces
- Finder scope and instruction manual

Options Included:

- Autostar Go-To Hand Control
- 12V power cord
- Meade "Wedge-Pod" Tripod with accessory Tray



Meade DSX 125mm Go-To Maksutov

Level:

- Intermediate

Specifications:

- F15 Maksutov-Cassegrain Optical System
- 127mm (5") Aperture
- 1900mm Focal Length
- Uses 1.25" eyepieces
- Finder scope and instruction manual

Options Included:

- Autostar Go-To Hand Control
- 12V power cord
- Alt-azimuth mount and tripod
- Accessory tray



Intes-Micro MN56 Mak-Newt Telescope

Level:

- Intermediate - Advanced

Specifications:

- F6 fully baffled Maksutov – Newtonian optical system with dew shield
- 5" 127mm Aperture
- 762mm Focal Length
- Uses 1.25" and 2" eyepieces
- 6x30mm right angle finderscope
- Moonlight premium crayford focuser

Options Included:

- Vixen Great Polaris Go-To Equatorial Mount
- Sky Sensor 2000 computerized control system
- Storage case for mount and accessories



Meade 8" LX10 SCT Telescope

Level:

- Intermediate - Advanced

Specifications:

- F10 Schmidt-Cassegrain optical system
- 8"/ 200mm Aperture
- 2000mm Focal Length
- Uses 1.25" eyepieces
- 6x30mm right angle finderscope

Options Included:

- Adjustable field tripod with Equatorial wedge
- Hand control for slewing
- 12V Power Cord
- 25mm & 12mm eyepieces
- 1.25" diagonal
- Visual Back
- Storage case



Celestron NexStar 8SE SCT

Level:

- Intermediate

Specifications:

- F10 Schmidt-Cassegrain optical system
- 8"/ 200mm Aperture
- 2000mm Focal Length
- Uses 1.25" eyepieces
- Red-dot finder

Accessories Included:

- Adjustable field tripod
- Hand control with go-to functionality
- 12V Power Cord
- 10mm, 18mm, 25mm eyepieces
- 1.25" diagonal & visual back
- Solar filter – glass full aperture



Celestron 8" SCT OTA with GEM mount

Level:

- Intermediate/Advanced

Specifications:

- F10 Schmidt-Cassegrain optical system
- 8.00"/ 200mm Aperture
- 2000mm Focal Length
- 9x50 mm finder with illuminated reticle

Accessories Included:

- Celestron AVX Go-To mount with adjustable tripod & hand control
- GPS accessory
- 12V Power Cord
- 2" Diagonal
- Various eyepieces available



Note: This telescope utilizes a German-style equatorial mount – please google how to use this mount before borrowing this scope.



Meade 8" LXD55 Schmidt-Newtonian Telescope

Level:

- Advanced

Specifications:

- F4 Schmidt-Newtonian optical system, SN-8 OTA weighs 24 lbs.
- 8"/ 200mm Aperture
- 800mm Focal Length
- Uses 1.25" or 2" eyepieces
- 30mm finderscope

Options Included:

- LXD55 Equatorial Mount with adjustable tripod
- Go-To hand control
- 12V Power Cord
- Available with 1.25" eyepiece set if needed.



Meade 10" LXD75 Schmidt-Newtonian Telescope

Level:

- Advanced

Specifications:

- F4 Schmidt-Newtonian optical system
- 10"/ 254mm Aperture
- 1016mm Focal Length
- Uses 1.25" or 2" eyepieces
- 50mm finderscope

Options Included:

- LXD75 Equatorial Mount with adjustable tripod
- Go-To hand control
- 12V Power Cord
- 25mm & 12mm eyepieces



Celestron Edge 9.25 OTA with GEM mount

Level:

- Advanced

Specifications:

- F10 Corrected Schmidt-Cassegrain optical system
- 9.25"/ 235mm Aperture
- 2350mm Focal Length
- 9x50 mm finderscope & red dot finder

Options Included:

- Celestron CGEM Go-To mount with adjustable tripod & hand control
- 12V Power Cord
- 2" Diagonal
- 2", 23mm Axom LX eyepiece

Note: This telescope is for experienced observers. There are 3 major components, the OTA, mount head and tripod. The mount head weighs approx. 40 pounds



Meade 10" LX200R GPS Telescope

Level:

- Advanced Go-To Telescope

Specifications:

- F10 Schmidt-Cassegrain with advanced coma-free optics (like Celestron EDGE HD)
- 10"/ 250mm Aperture
- 2500mm Focal Length
- Uses 1.25" or 2" eyepieces
- 8x50mm right finderscope

Options Included:

- Adjustable field tripod
- Meade Autostar hand control
- 12V Power Cord
- 25mm & 12mm eyepieces
- 2" diagonal with 1.25" adapter
- ScopeSaver mounting plate / eyepiece tray (not shown)

Note: This telescope is for experienced observers. The scope and mount are heavy. You must be able to lift the 67-pound assembly onto the tripod



Celestron CPC 1100 SCT Telescope

Level:

- Advanced Go-To Telescope

Specifications:

- F10 Schmidt-Cassegrain 11"/ 280mm Aperture
- 2800mm Focal Length
- Uses 1.25" or 2" eyepieces
- 9x50mm finderscope

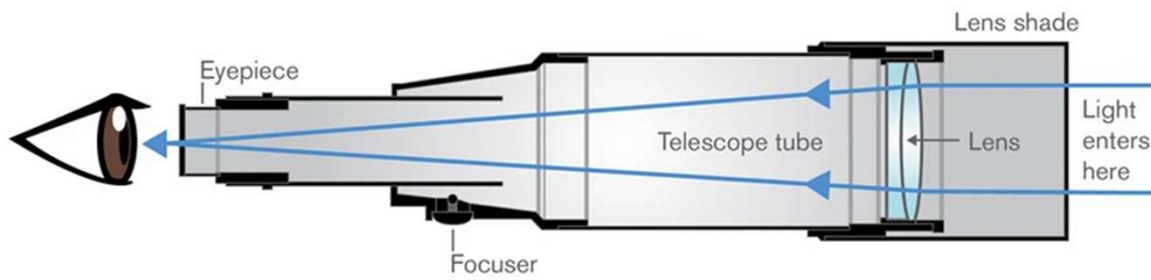
Options Included:

- Adjustable field tripod
- Celestron hand control
- 12V Power Cord
- 25mm & 12mm eyepieces
- 2" diagonal with 1.25" adapter

Note: This telescope is for experienced observers. The scope and mount are heavy. You must be able to lift the 65-pound assembly onto the tripod



Refractors



Refractor Optical System

Key Advantages:

1. Unobstructed (no secondary mirror) can help provide the sharpest images.
2. Often preferred for lunar and planetary work.

Orion Short Tube 80mm Refractor

Level:

- Beginner

Specifications:

- F5 achromat suited for terrestrial or wide field stargazing
- 80mm Aperture, 400mm F.L.
- Uses 1.25" eyepieces
- Vixen dovetail with tripod sockets

Options Included:

- Can be used with a photographic tripod or a mount that accepts Vixen-style dovetail
- 1.25" 45° upright image diagonal
- Soft storage case



Orion 120mm Equatorial Refractors

Level:

- Intermediate

Specifications:

- Two telescopes, one mount
- 4.75" / 120 mm Aperture
- 600 mm and 1000mm Focal Length (F5 and F8.3)
- Uses 1.25" eyepieces
- 6x30mm right angle finderscope
- German equatorial mount

Options Included:

- 25mm & 12mm eyepieces
- 1.25" diagonal



Use the short tube F5 version for low magnification and wide field of view, and the long F8.3 version for high magnification on planets and smaller objects



Celestron 6" 150mm Equatorial Refractor

Level:

- Intermediate - Advanced

Specifications:

- 6" / 150 mm Aperture
- 1200mm Focal Length (F8)
- Williams Optics rotating 2-Speed crayford focuser
- CGEM computerized German equatorial mount

Options Included:

- 25mm & 12mm eyepieces
- 2" diagonal & 1.25" adapter
- Go-to keypad control
- Power cord



Note: This telescope is for experienced observers. There are 3 major components, the OTA, mount head and tripod. The mount head weighs approx. 40 pounds

Orion Astroview 90mm Refractor with Solar Filter

Level:

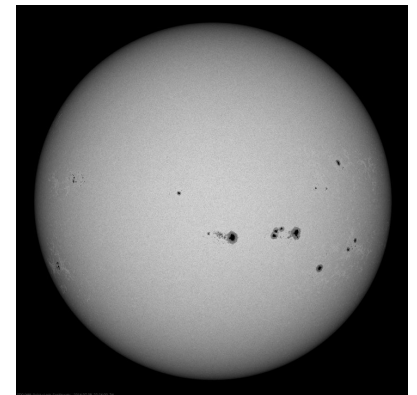
- Beginner - Intermediate

Specifications:

- F10 Achromatic Refractor
- 3.5"/ 90mm Aperture
- 910mm Focal Length
- Uses 1.25" eyepieces
- 6x30mm right angle finderscope (nighttime use only!)
- German Equatorial Mount

Options Included:

- 5mm & 12mm eyepieces
- 1.25" diagonal
- Glass (white light) solar filter



Explore Scientific 80mm Apochromat Refractor

Level:

- Intermediate

Specifications:

- F6 ED triplet design to eliminate false color
- 80mm Aperture, 480mm F.L.
- Uses 1.25" and 2" eyepieces
- Vixen mounting rail
- Rotating dual speed focuser

Options Included:

- Can be used with mount that accepts Vixen-style dovetail bars – enquire with club if you need a mount
- 2" dielectric diagonal
- 6x30mm finder
- Storage case



AstroTech AT102mm ED Refractor

Level:

- Advanced

Specifications:

- F 7 refractor with ED (extra low dispersion) glass for reduced color.
- 4"/ 102mm Aperture, 710mm F.L.
- Uses 1.25" and 2" eyepieces
- Vixen mounting rail
- Rotating dual speed focuser

Options Included:

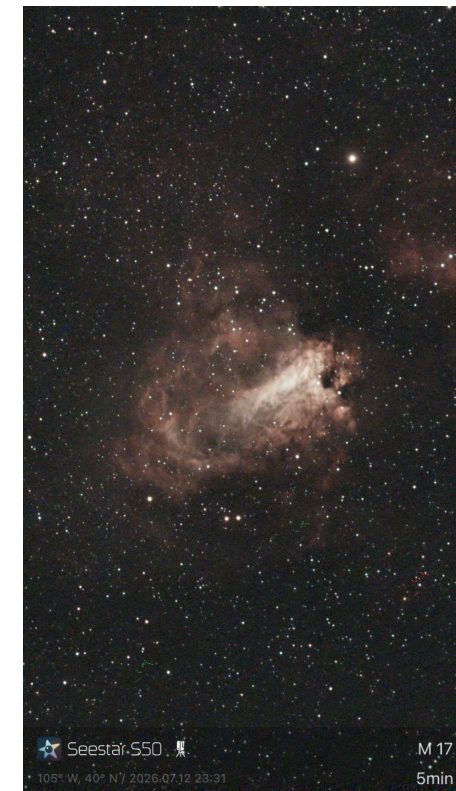
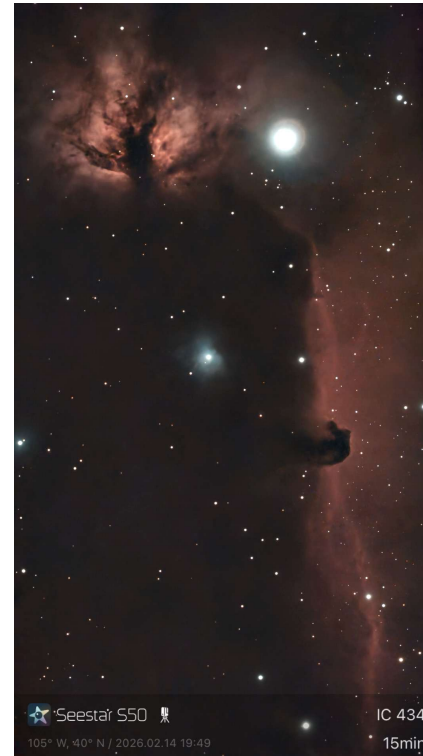
- Celestron CG5 Equatorial Mount with dual axis drive
- 25mm & 12mm eyepieces
- 2" dielectric diagonal
- Red dot finder
- Storage case



Smart Imaging Scopes

These scopes:

- Automated, go-to functionality, with CMOS imaging sensors but no eyepiece
- Controlled with a tablet or smart phone
- Ideal for imaging deep space objects (nebula, clusters, galaxies), the moon and (with filter) the sun
- Not ideal for planets or small deep sky objects such as small planetary nebula or galaxies (the imaging scale is better suited for larger objects)
- Rechargeable lithium batteries



Zwo SeeStar S50 Smart Imaging Telescope

Level:

- Beginner - advanced

Specifications:

- 50 mm triplet APO refractor
- 250 mm (F5) focal length
- Sony IMX462 Imaging sensor
- Auto-alignment, auto-stacking, auto focusing, integrated dew heater
- 3/8" tripod mount

Accessories Included:

- Carbon-fiber tripod
- Solar filter
- Carrying case
- Charge cord (USB-C)
- App provides image processing capability



Dwarflab DWARF 3 Smart Imaging Scope

Level:

- Beginner - advanced

Specifications:

- Dual optics:
 - 35 mm F5 telephoto
 - 3.4 mm F2 wide angle
- Sony IMX678 Imaging sensor
- Auto-alignment, auto-stacking, auto focusing, integrated filters
- 3/8" tripod mount
- Wi-Fi & Bluetooth connectivity

Accessories Included:

- Tripod
- Carrying case
- Charge cord (USB-C)
- App provides image processing capability



Solar Telescopes

Three types:

1. White light filter (best for sunspots). Most astronomical telescopes can be equipped with white light filters. Results in a white or orange image depending on the filter type.
2. White light projection (good for sunspots).
3. Hydrogen-alpha (Ha, best for prominences and surface detail). This is a dedicated solar telescope with integrated filter elements, not usable for nighttime astronomy.

Safety:

1. **Never** observe the sun without a purpose designed filter or telescope.
2. If using a solar filter, always insure it is undamaged and securely installed on the front of the instrument.
3. H-alpha scopes with a removeable diagonal **MUST** be used with the supplied blocking filter diagonal.

Coronado PST H-alpha Solar Telescope

Level:

- Beginner - Intermediate

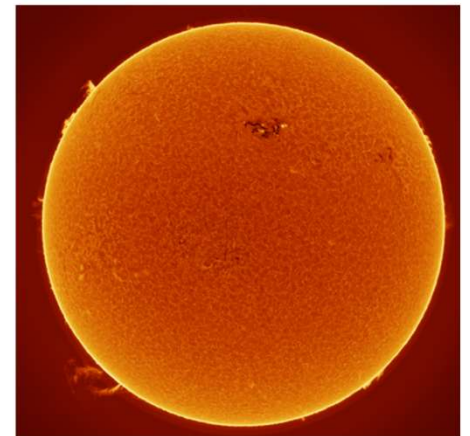
Specifications:

- Hydrogen-alpha solar telescope
- Single stack
- 40mm aperture
- 1/4-20 tripod socket
- Built in solar finder

Options Included:

- Mount & tripod
- 12 mm and 25 mm eyepiece
- Storage case

We have 2!



Coronado SolarMax H-Alpha Telescope

Level:

- Intermediate - Advanced

Specifications:

- Hydrogen-alpha solar telescope
- 60mm front Etalon with T-Max tuning
- 400mm F6.6
- Vixen mounting rail
- Helical focuser

Options Included:

- Meade LDX75 GEM, converted to slow motion knobs
- 25mm & 12mm eyepieces
- 1.25" 10mm Blocking Filter diagonal
- Solar Finder
- Storage case



Note: Must be used
with included blocking
filter diagonal!



Coronado SolarMax II H-Alpha Telescope

Level:

- Intermediate - Advanced

Specifications:

- Hydrogen-alpha solar telescope
- 60mm aperture with RichView tuning
- 400mm/ f6.6
- Vixen mounting rail
- Helical focuser

Options Included:

- GEM mount, slow motion knobs
- 25mm & 12mm eyepieces
- 1.25" 10mm Blocking Filter diagonal
- Solar Finder
- Storage case



Note: Must be used with included blocking filter diagonal!



iOptron Backpack Solar Telescope

Level:

- Beginner - Intermediate

Specifications:

- White light solar telescope
- 60mm aperture refractor
- F6 / 360mm FL

Options Included:

- iOptron Cube go-to mount
- Solar filter
- Tripod
- Backpack



Sunspotter Solar Telescope

Level:

- Beginner - Intermediate

Specifications:

- White light solar telescope
- Projects an image of the sun on white paper screen
- Great for sunspots
- Good to use at events and parties



Orion Astroview 90mm Refractor with Solar Filter

Level:

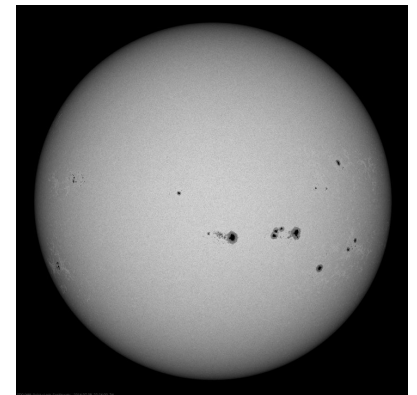
- Beginner - Intermediate

Specifications:

- F10 Achromatic Refractor
- 3.5"/ 90mm Aperture
- 910mm Focal Length
- Uses 1.25" eyepieces
- 6x30mm right angle finderscope (nighttime use only!)
- German Equatorial Mount

Options Included:

- 5mm & 12mm eyepieces
- 1.25" diagonal
- Glass (white light) solar filter



Other Loaner Equipment

The club has additional equipment available – please enquire if you are interested in borrowing:

- Binoculars
- Telescope Mounts
- Celestron StarSense Autoalign system which will work with any modern Celestron mount (NexStar, CPC, AVX, CGEM, etc.)
- Eyepieces
- Planetary CMOS cameras
- Observing charts
- Cell phone – eyepiece mounts

