

Member's Minute

"Homemade"

127mm, f/9.4 Refractor
(1200mm focal length)



Doug Holland

Objective Lens
Surplus Shed
TSP \$20



Aluminum Tape
Ace Hardware, \$10

5" Hastings Irrigation Pipe
\$51.88

Finder Mount
Agena Astro Products
\$15.95



1x / Red Dot Finder
Scopestuff, \$29



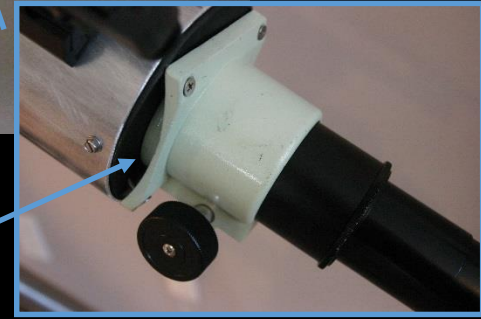
Collimation
Screws

Total = \$203.83

Tube Rings
Agena Astro Products, \$35
Cork
Walmart, \$5



Focuser
Surplus Shed
TSP \$5



Dovetail Bar
Scopestuff, \$32

Adapter Plate
3/4" Plywood
Hole Saw





Other Points of Interest

- Inside of aluminum tube is shiny
- Applied black flocking paper

Weight = 11.6 lbs.





After Adding
Light Shade

6" Mailing Tube,
Spray Painted Flat Black

3D Printed
Thread Ring





Carrying Case



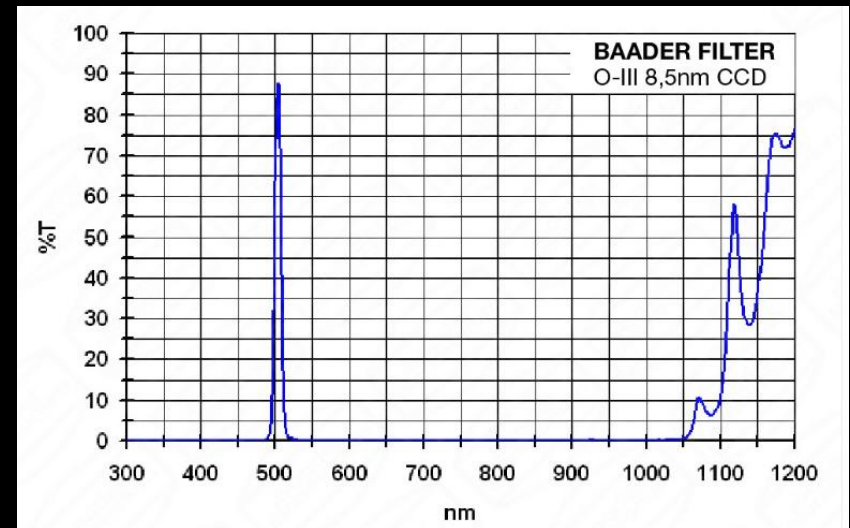
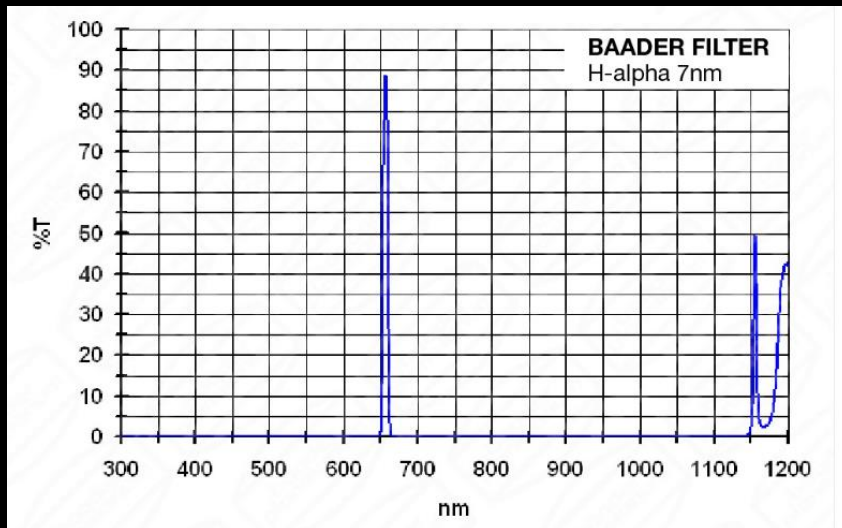
Question – Can an Achromat lens be used for astroimaging?

Definition of Achromat lens: *Achromatic lenses* are corrected to bring two wavelengths (typically red and blue) into focus on the same plane.



What if:

1. We use narrowband filters (to limit the bandwidth of light)?
=> Limited bandwidth = limited range of colors to be misaligned
2. We use image processing software to register the unregistered color planes?
=> Geometrically re-aligning the unaligned colors





Unregistered –
Note color aberration

Registered with PixInsight–
Colors aligned



End Result:

- Low cost achromat refractor
 - Narrowband filters
 - Registration software

