

Setup and Teardown Procedure

An outline of the essential steps for preparing for an observing run and mopping up afterwards

Before Going Up

- Assemble keys, headlamps, and the laptop that will control the equipment

Setup

After Arrival

- Unlock the control room
- Unlock the dome
- Put the south shutter down
- Set up small ladder stored in the control room outside the dome
- Clip dome doorway closed from inside
- Put the north shutter down

Uncover the Telescope

- Remove patio chair cover (there is a drawstring that has to be untied and loosened and there is a plastic snap buckle that has to be unbuckled)
- Remove sheet
- Remove plastic bag
- Remove three shrouds from telescope
- Remove metal covers over primary mirror (use extreme care — nothing stops the metal covers from falling into the primary)

Power Up and Connect to TheSky Fusion

- Activate Jackery that provides dome power
- Connect laptop to TheSky Fusion local wifi
- Connect laptop to TheSky Fusion desktop using VNC

Connect TheSky Fusion to the Mount and Home the Mount

- In the Telescope tab, under Start Up, hit "Connect Telescope" (this actually connects to the mount)
- Telescope will warn that it is not homed — home telescope

Connect TheSkyFusion to the Imaging Train

- In the Camera tab, connect to camera
- The preceding step should also cause the filter wheel, the autoguider, and the focuser to connect

Check Pointing and Focus

- In the Find tab's "Search for:" field, type in an easy target (such as Alcyone, the brightest of the Pleiades)
- After checking that target's altitude is positive (above horizon), slew telescope to target
- Within the Camera tab is a Focus tab — use @Focus3 to achieve focus — sanity-check by repeating

Obtain Lights

The planning and execution of the scientific part of an observation run is outside the scope of this document.

Teardown

Park the Mount and Disconnect TheSky Fusion from the Mount

- In the Telescope tab, under the Shut Down dropdown list, hit "Park"
- In the same list, hit "Disconnect Telescope"

Obtain Flats, Biases, and Darks

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Disconnect the TheSky Fusion from the Imaging Train

- In the Camera tab, hit "Disconnect"
- The preceding step should also cause the filter wheel, the autoguider, and the focuser to disconnect

Power-Down Sequence for TheSky Fusion

- Quit TheSkyX app running on the TheSky Fusion
- Wirelessly copy images from TheSky Fusion to laptop (alternatively, images can be copied onto a USB stick)
- Use menu item on TheSkyFusion desktop screen to power down TheSkyFusion (you will know TheSky Fusion has powered down when you lose its wifi)
- Deactivate the Jackery that provides dome power

Cover the Telescope

- Replace metal covers over primary mirror (again with extreme care)
- Replace three shrouds (over secondary mirror, over trusses, and over the front of the telescope)
- Replace plastic bag (using masking tape to close off avenues for dust)
- Replace sheet
- Replace patio chair cover — handle goes to south and drawstring goes to north
- Tighten drawstring and tie it to the counterweight shaft
- Buckle the patio chair cover's snap buckle

Prepare for Departure

- Put the north shutter up
- Unclip the dome doorway from inside
- Put exterior small ladder away in control room
- Put south shutter up
- Padlock the dome
- Log any problems or recommendations
- Sweep grit out of control room
- Lock the control room, including any windows that were opened