

# Setup and Teardown Procedures

*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*

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

### *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