

# Getting Computer and Camera Started at the start of an observing session

This document contains all the steps you should go through after setting up the telescope and camera. When done, you will have a live view of the sky through the telescope.

1. Turn on computer
2. When done, the screen will show a picture, UT time and date and a couple of other small icons. To get the login screen, hit <esc>.
3. Login: user mu69 (default) and password: Pluto. Wait for login to complete.
4. Plug in camera power cord to battery pack. Switch does not light up but when turned on you will hear a fan running inside the camera. Make sure it's on at this point. AMZ note: The camera cooler cord 12 V connector is funny shaped and does not fit all the way in the socket in the battery itself. We have purchased some 12V splitters and it fits in that just fine.
5. Plug in camera side of USB cable. Making sure to use a USB3 port on the left side, preferably the rear-most USB port (forward of Ethernet and HDMI), plug the USB cable into the computer. Listen for the USB-connect tone to verify that the computer has recognized the camera.
6. Start SharpCap
  - a. Double-click on the SharpCap desktop icon
  - b. A pop up window labeled "User Account Control" comes up with a question: "Do you want to allow this app from an unknown publisher to make changes to your device?" Click Yes to continue
7. There is usually a one line warning message at the top of the image display window which might be about a filter wheel or USB transport speed. These message do not seem to be important and you can safely dismiss them at any time. This message will go away after about a minute, so do not worry if you do not see such a message.
8. Look at message bar on bottom of window. If it says "Ready - no camera selected" you need to select it. (Otherwise, it starts taking and showing images right away. You can tell by the incrementing frame counter.)
  - a. Under Cameras menu, look for QHY174M or QHY174GPS. If not present, click "Rescan for Cameras"
  - b. If there is still no camera it is most likely not connected properly, go back to step 4 and try again. Note that if you accidentally start two copies of SharpCap, one of them will not connect to the camera. If this happens, close all versions and try again, this time only starting it once.
  - c. Click QHY174M or QHY174GPS. Message at the bottom will go away, a banner message may appear the top (dismiss it). At this point, the camera should be

running with a live preview mode. If the frame counter is increasing, you are taking images, even if you don't see anything more than a blank screen.

9. On the right hand side of the screen, open Capture Profiles (if not already opened)
  - a. Click drop-down and select OCC
  - b. Click "Load"
  - c. Close capture profiles area (click arrow)
10. Open Camera Controls (leave this open all the time)