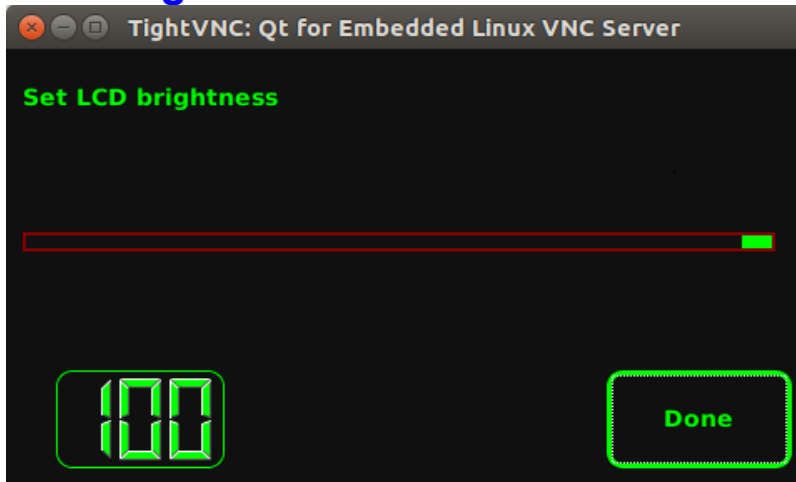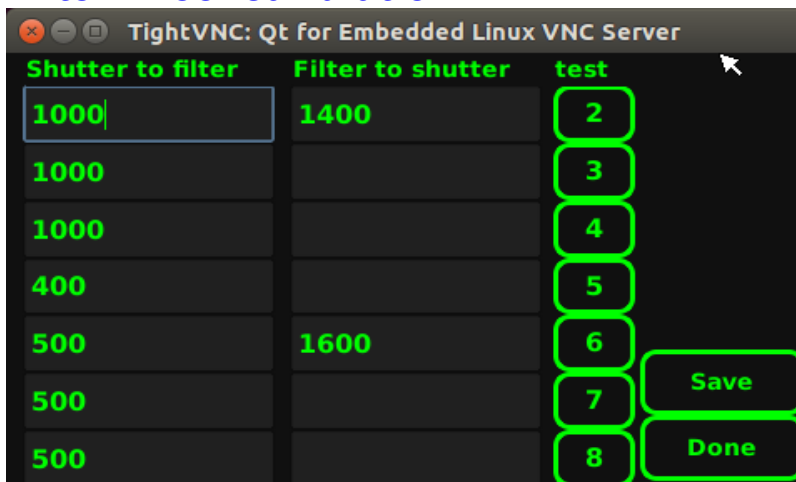# Astrel Instruments

**AST-8300-B**

**ADMIN TOOLS USER GUIDE**

**rev A**

# LCD brightness



The LCD brightness app is used to set the LCD brightness level. Drag the slider to select a comfortable brightness. Touch **Done** to store the updated value and go back to the d

# Filterwheel calibration



The Filterwheel calibration app is used to fine tune the filterwheel filter position. The AST8300 cameras use very small filters, so they have to be carefully aligned with the sensor and the optical path in order to avoid vignetting. The calibration is done by Astrel before sending the camera, but in some cases, like for example a filter addition or removal, it could be necessary to recalibrate the filterwheel using this app

The AST8300, during boot, finds the absolute filters positions by reading the number of counts generated by a sensor during filterwheel movement. For each filter position the sensor returns a very similar number of counts, apart position 1, where it reports an higher number of counts

You can fine tune the filter positioning for each filter. You need to put 2 numbers for each filter: a number for the opening movement (from shutter to filter) and one for the closing movement (from filter to shutter). When pressing the **test** button corresponding to a filter, an opening movement is done, then, after 10 seconds, the closing movement is done. By carefully look through the optical window, change the 2 numbers until the filter is concentric with the sensor. If the sensor is not visible (small bandwidth filters), align the filter to be concentric with the optical window diaphragm

Note: there are 2 version of motors for the filterwheel, which use a slightly different movement algorithm. The calibration procedure is identical, apart that for generation 1 motors there are only 2 possible closing movement: the first one, position 2, is used also for positions 3 and 4, while the second one, position 5, is used also for positions 6, 7 and 8. The app should automatically find out the motor generation and provide the correct interface: for generation 1 in

the closing movement column only the allowed 2 values can be modified.
When done, touch the **save** button to store the new calibration data

## Configure
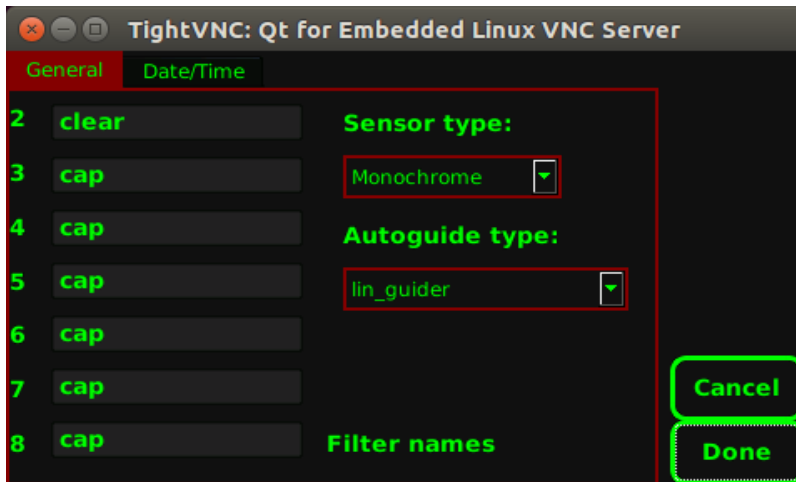


In the **general** tab you can enter the names of the filters for the corresponding filterwheel position, choose the **sensor type** between mono and single shot color and the **autoguider type** between lin_guider (internal guider) and Lacerta MGEN external autoguider
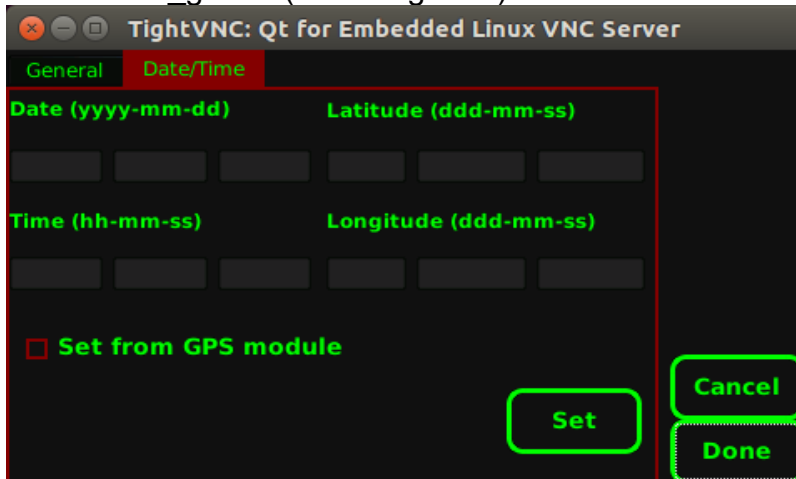


In the **Date/Time** tab you can enter the date, time and geographical coordinates. This info will be added in the images FITS header. Press **Set** when done.
When available, you can get these info directly from the GPS USB module by checking **Set from GPS module** and then press **Set**.