

DEEP SKY DAD FT1 MANUAL



Making flats can be quite cumbersome, especially if you stride towards automation and simplification of the process. Our flap panel makes making flat frames with your refractor telescopes part of automated routine, without hacks like lcd screens, sky with t-shirt etc.

Intro

Deep Sky Dad Flat Panel enables automation of making flats. We are currently offering 2 variations of our flat panel:

- 300mm x 300mm x 11mm
- 600mm x 600mm x 11mm

Features

- Lightweight design (ALU frame, thin design)
- Easy installation with 2 bolts (in case of wall mounting)
- Dimmable LED light
- Manual control with button
- ASCOM support
- INDI support
- Power requirements: 12V 3A (**not included**)
- PC connectivity: micro USB cable (**not included**)

Installation

Panel contains 4 utility holes and comes with bolts for installation.

FAQ

Basics

What kind of power adapter can I use?

We recommend 12V DC power adapter, as the units are fine tuned to this specific voltage. However, autofocuser will work up to 14V. Socket specification: tip positive, 5.5mm x 2.1mm. Should you not have 12V adapter at hand, the units also work in range from 12V-14V without issues. Current output of the power adapter should be about 3A, but can be more (it will not damage the flap).

When I connect the flap to computer, Windows does not recognize it. What can I do?

If you are using Windows 10, the driver will self install. If you are using Windows 7, please install [32](#) or [64](#) bit driver. Should you experience any problems with detection (COM port not visible, no USB device connected chime), try:

- different USB cable
- direct connection (without USB hub)
- using USB 2.0 port (instead of 3.0)

How can I upgrade the firmware?

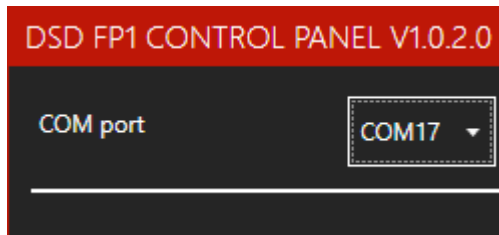
Firmware upgrade is a simple yet delicate procedure. That is why I have put together simple and straightforward step-by-step instructions for installing the latest firmware.

disclaimer

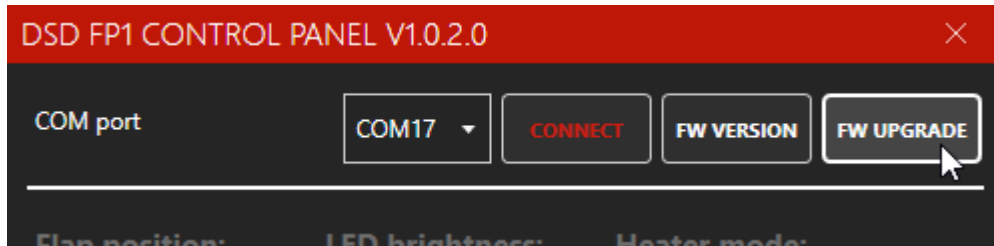
Please follow upgrade instructions very carefully. Deviating from the instructions could cause bootloader issues or in worse case unresponsive unit, for which we are not responsible.

1. Connect the unit directly to computer (do not use USB hub). In device manager check which COM port was assigned to it and write it down. If unit is not recognized, check FAQ above for details
2. Download the latest firmware from our website.
3. Download and unzip FP1 Control Panel from our website
4. Start control panel as administrator and enter following settings

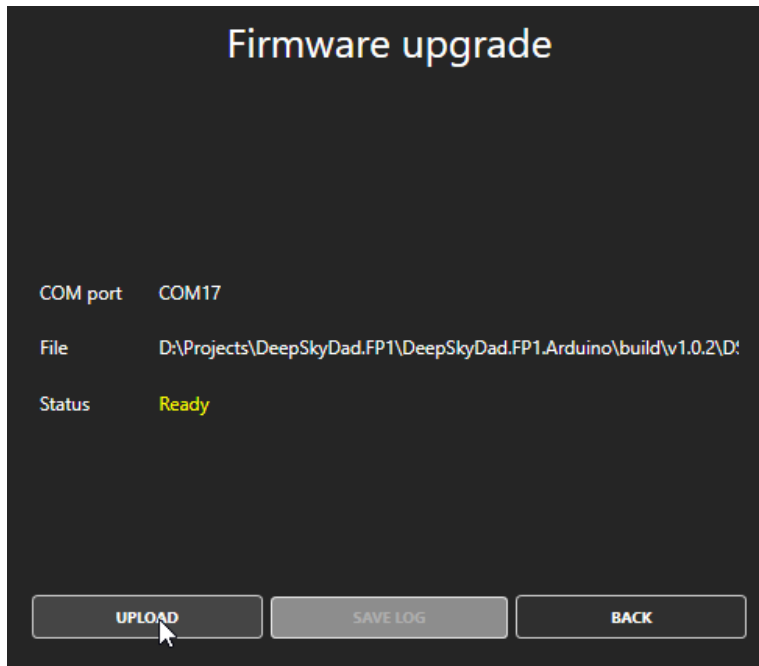
- a. COM port – choose com port that you have written down



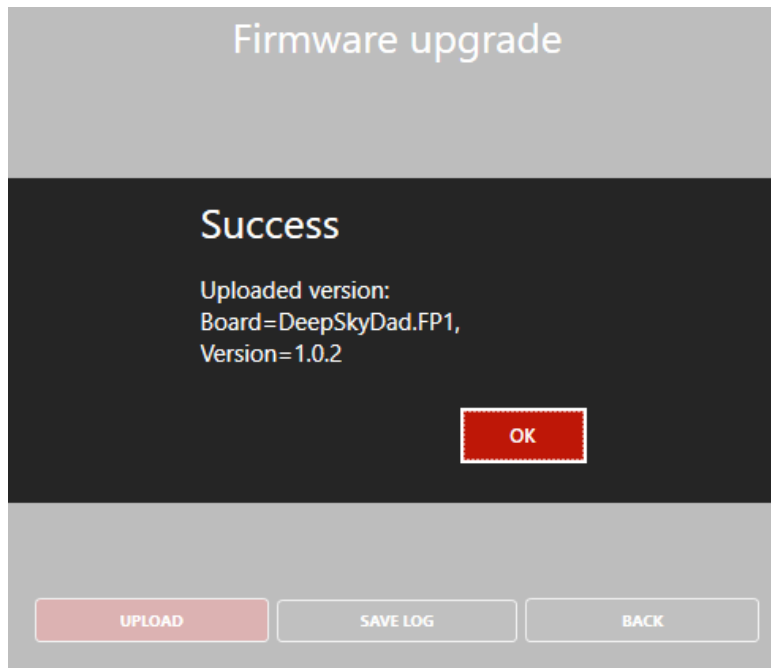
- b. Click »FW UPGRADE« and select .dsd file



- c. Click upload and the process will begin



- d. After upload is finished, you will get a confirmation popup



5. If the upload should fail, you will get the error message popup. For example, should you still be connected to the unit in some other program and tried to upload the firmware, you will get »Access is denied«. If you get timeout error, try replugging power and retry the upgrade process.

Remote control

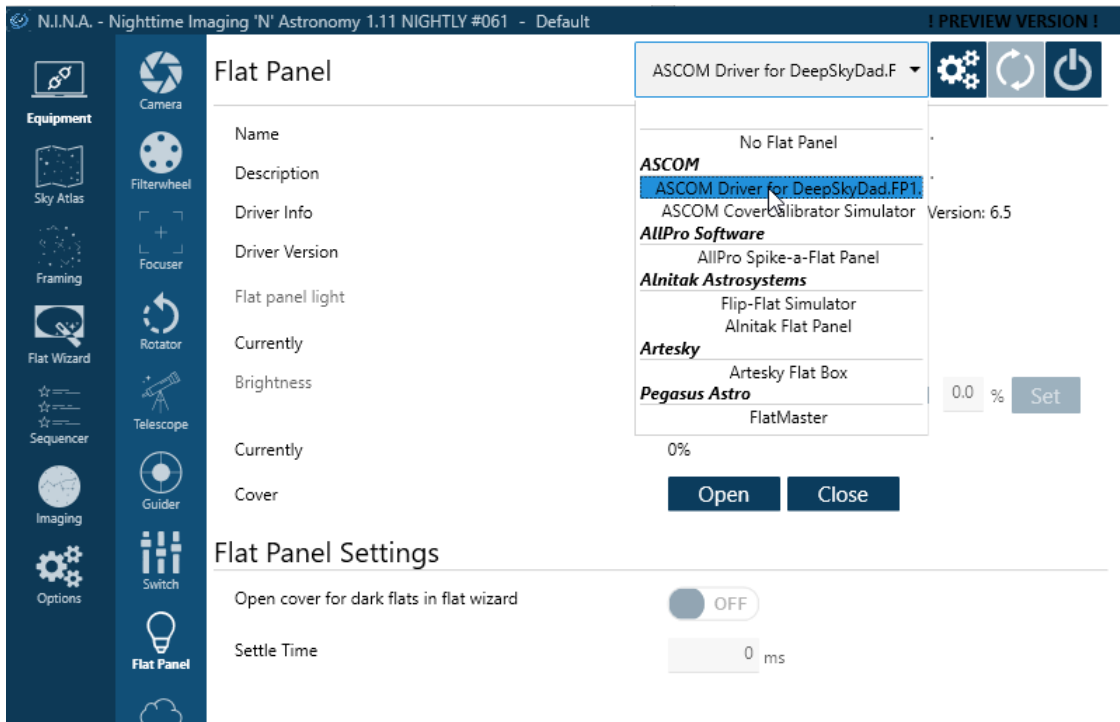
Remote operation is supported via Micro USB cable. Below is a description of current control methods (more will be available in the future)

ASCOM (Windows)

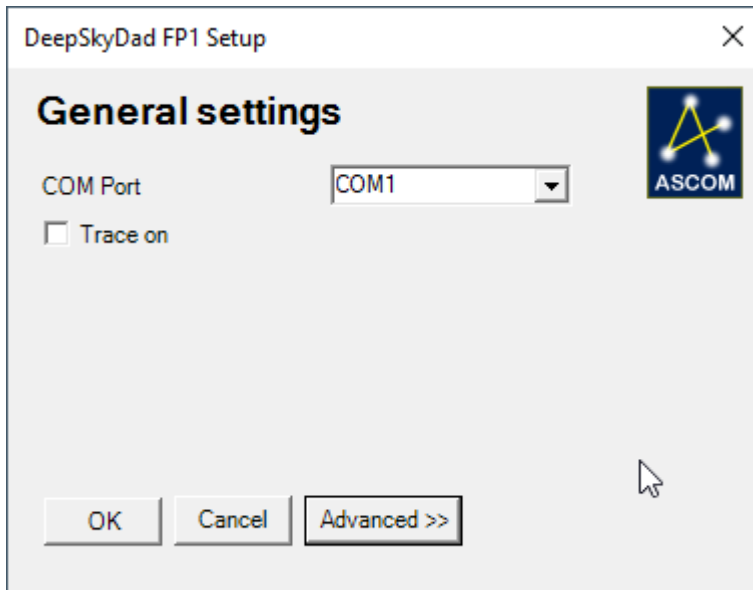
In Windows, we recommend you to use ASCOM Cover Calibrator driver for control. This requires ASCOM Platform 6.5, which introduced Cover Calibrator device. This way, you can automate our flap in any of the popular astronomy softwares (N.I.N.A, APT, SGPro, Voyager,...). We will use N.I.N.A. for a short demonstration below.

Basic usage

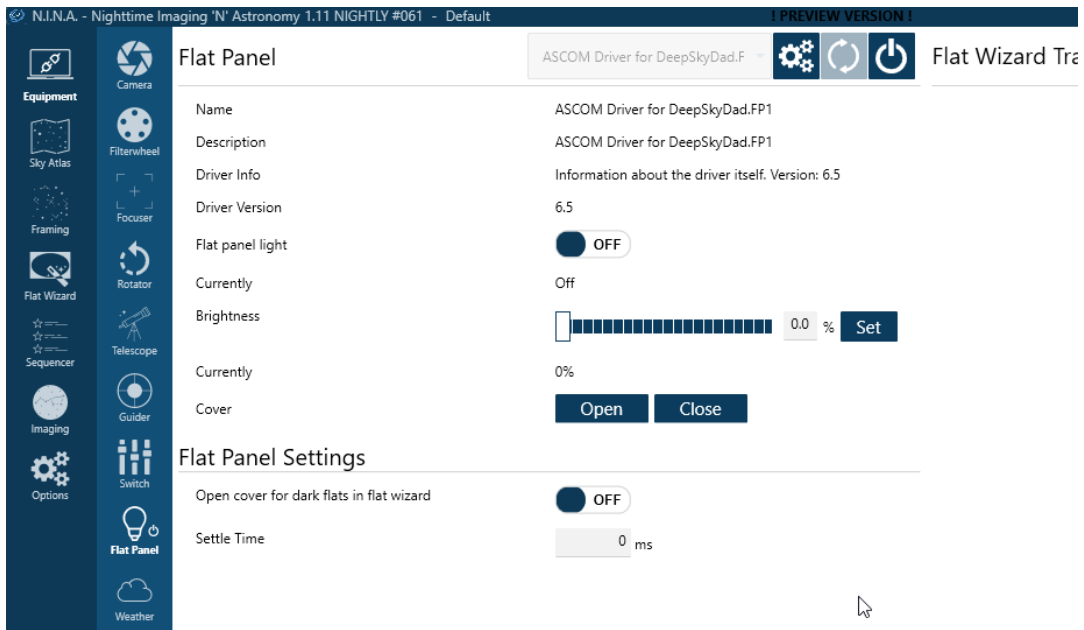
1. Download, unzip and install latest version of ASCOM driver from our website
2. Open N.I.N.A, navigate to *Equipment -> Flat Panel*
3. Select *ASCOM Driver for DeepSkyDad.FP1*



4. Open ASCOM settings and select correct COM port



5. Click OK and connect to the flap

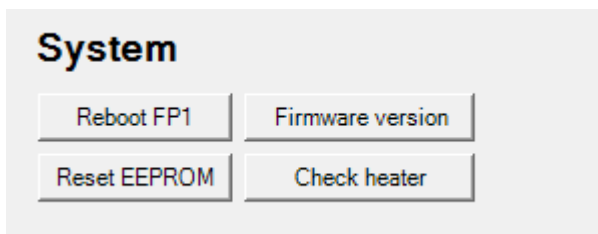


6. And you are ready to automate your flaps! You control LED brightness. **Opening/closing the cover doesn't do anything – its Flap panel 1 only feature.**

Built in heater: this is Flap panel 1 feature and is not available for Flat panel.

System controls

1. Open ASCOM settings, click Advanced
2. On the right side you have 2 sections. Heater and System. We are currently interested in System, which contains 4 buttons:
 - a. Reboot FP1 – resets the unit
 - b. Firmware version – currently installed firmware version (in case you have ASCOM connectivity issues, click this button)
 - c. Reset EEPROM – resets unit settings to factory defaults
 - d. Check heater – checks whether heater is present

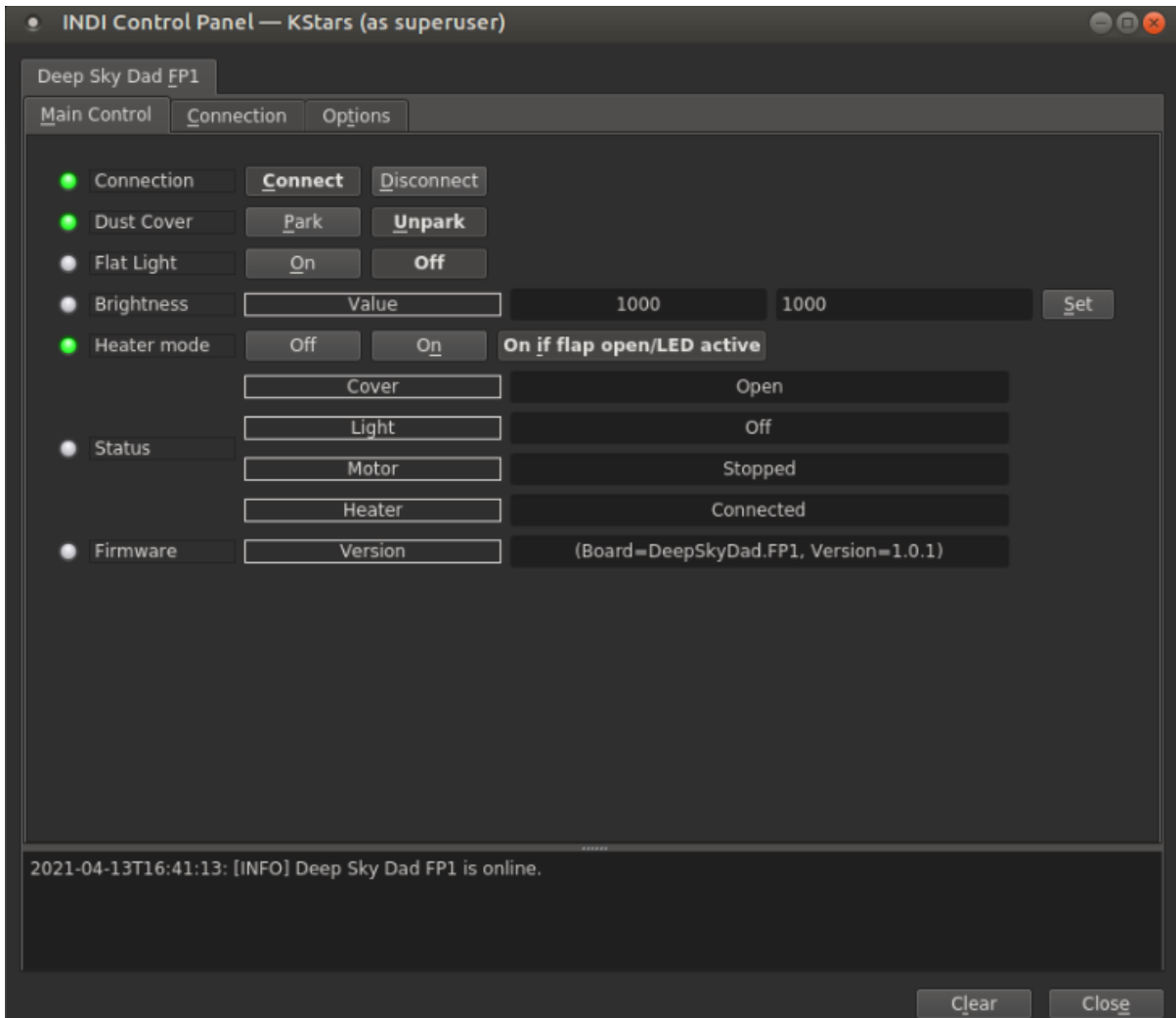


INDI (Linux)

In Linux, you can control our flap panel with Deep Sky Dad FP1 INDI driver.

Basic usage

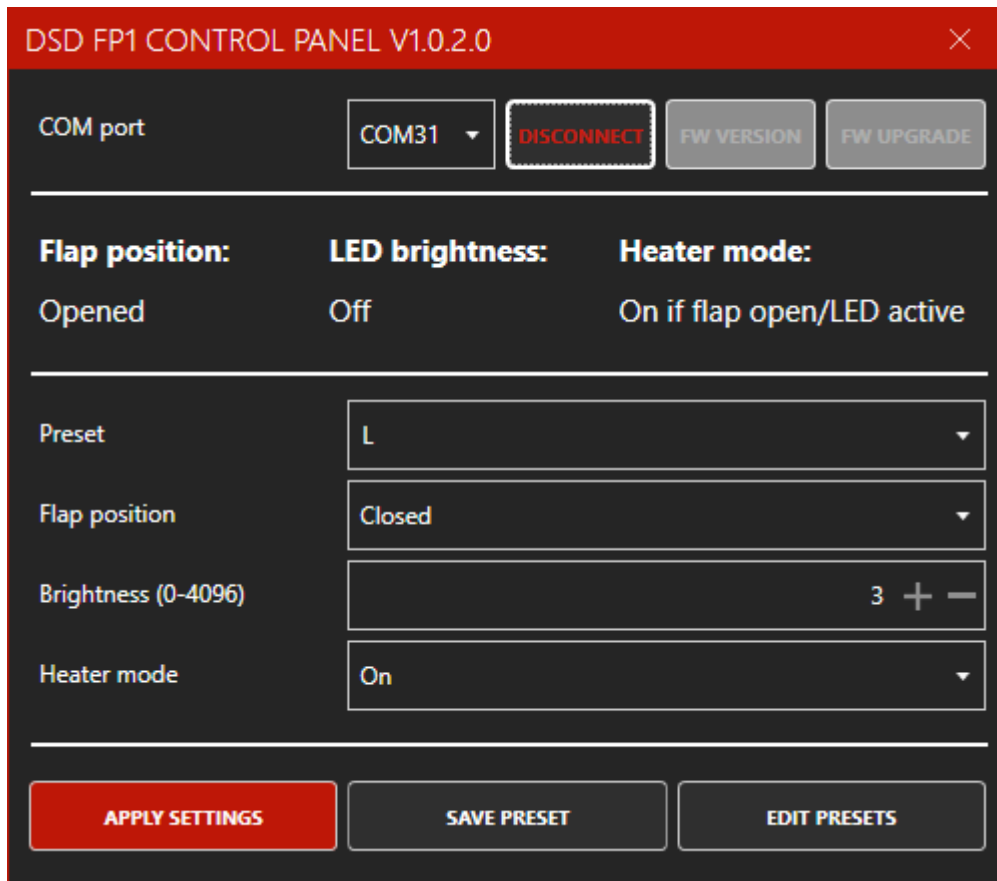
Select correct ttyUSB device (e.g. ttyUSB0) and click connect. You can the LED brightness (0-4096).
Statuses are displayed below the button interface. 1. **Park/unpark doesn't do anything – its Flap panel 1 only feature.**



Built in heater: this is Flap panel 1 feature and is not available for Flat panel.

FP1 Control Panel (Windows)

If you wish to control our panel without 3rd party software, you can do so in Deep Sky Dad FP1 Control panel:



You can control LED brightness (0 is off) and heater mode. You can also save presets for different purposes (e.g. different brightnesses for different camera filters, brightness 0 for making darks,...).

Flap position and heater mode are Flap panel 1 only features.

Manual control

Manual operation is possible via built in button.

- Long press turns LED light ON/OFF. This can come handy if you need a lamp while working in the dark.

Warranty and returns

All our products have 2 years warranty. We will replace any malfunctioning units in this period free of charge. Warranty does not apply to any malfunction caused by improper usage (wrong power supply,) or physical damage to the unit.

The customer covers return shipping costs when sending back the unit for repair or replacement. If the unit was purchased via dealer, the dealer is responsible for customer service.