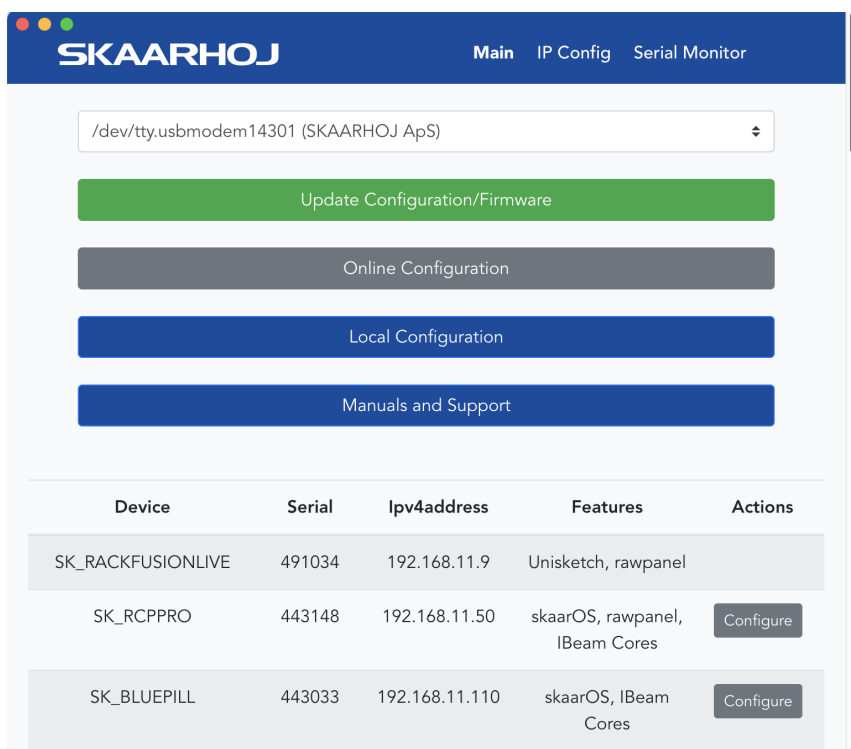


# Connecting UniSketch Controllers

The Blue Pill works as a wonderful add-on to connect and control UniSketch controllers like never before. There are three ways to set a UniSketch controller to allow for connection to the Blue Pill.

Two of the methods will involve using the SKAARHOJ Firmware Updater available [here](https://www.skaarhoj.com/support/firmware-updater): (<https://www.skaarhoj.com/support/firmware-updater>). The controller will need to be connected to the computer by USB cable. After the controller is set to Blue Pill Mode, it will no longer need USB connection for programming. This will be done through the Blue Pill web interface.



## Blue Pill Mode - Via Serial monitor

Starting with UniSketch v2.5.14, it is possible to put the panel into Blue Pill Mode with a command in the serial monitor. Using this method the controller will be assigned an IP address only via DHCP.

To enter Blue Pill mode, type in: **TakeTheBluePill** in the serial monitor. The mode will be confirmed:

```
.Blue Pill Mode enabled! (Raw Panel Server Mode), resetting..
```

The IP address of the controller will now be confirmed in the boot up information for the controller:

```
*****
SKAARHOJ Controller Booting
*****
SK_VERSION: v2.5.14
SK_MODEL: SK_RACKFLYUNO
SK_SERIAL: 433769
EEPROM Size: 8192
Blue Pill DIRECT MODE enabled
I2C 400 kHz mode activated
Init LEDs and buttons
Preset 1 loaded
MAC address: 82:31:D3:D0:72:4A
Requesting DHCP address... OK
IP address: 192.168.11.222
Subnet Mask: 255.255.254.0
Gateway: 192.168.10.1
DNS: 192.168.10.1
mDNS Service started, announced for port 80
Boots Count: 191
Uptime: 250 hours, 12 minutes
Screen Saver: 99 hours, 41 minutes
Usage Stats Flags: 01
*****
Blue Pill DIRECT MODE enabled (DHCP + Raw Panel Server Mode on port 9923)
*****
DeviceCore #1: UniSketch TCP Client0, IP = 0.0.0.0:9923
True Encoder Button Action: 1
UNISKETCHTCPCLIENT: Server Mode = ON
Compiled: Dec 1 2021 09:14:53
setup() Done
-----
59
.UNISKETCHTCPCLIENT: Reset sleep timer last trigger
```

The IP address will also be displayed on the panel along with “Waiting for Blue Pill”



An advantage of Blue Pill Mode is, that it will not destroy any existing configuration on the panel and can easily be exited from again by writing “**reset**” or pressing the reset button in the serial monitor. Blue Pill Mode is meant as a quick way to get in and out of Blue Pill Mode when using UniSketch panels in both ways regularly.

### Blue Pill Mode - Via Special Key

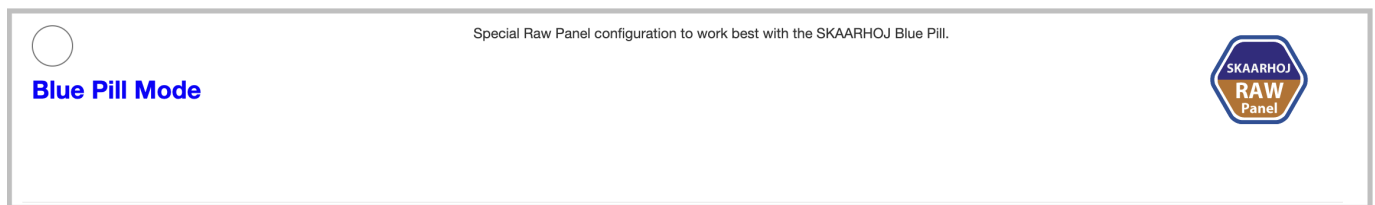
Blue Pill Mode can be enabled and disabled without the serial monitor on most UniSketch panels running firmware version 2.5.14 and above.

- *Enter Blue Pill Mode:* During power-up, when the color animation first appears across the buttons, press the button in the lower left corner of the controller twice. When the color animation completes, it should sweep across the controller with just blue color - and it will reboot Blue Pill Mode
- *Exit Blue Pill Mode:* Same procedure as above. When Blue Pill Mode is exited, the color sweep to confirm it will be white instead of blue.

The IP address will also be displayed on the panel along with “Waiting for Blue Pill” the same as when using the serial monitor to enter Blue Pill Mode. Using this method the controller will be assigned an IP address only via DHCP.

## Fixed Configuration

If a static IP is needed it is possible to do so by selecting the default configuration called Blue Pill Mode and loading it onto the controller. This uses our SKAARHOJ Raw Panel integration with the needed device core options already selected. We recommend this type of configuration for any static or long term installation.



Once it has been selected the IP address can be set either in the Network Configurations section in the Simple Configuration page before the firmware is loaded onto the controller via the Update Configuration/Firmware button on the updater.

### Network configuration

☐ DHCP
 ☒ Static

IP	192	168	10	99
Subnet	255	255	255	0
Gateway	192	168	10	1
DNS	192	168	10	1

### Devices

Enabled	Name	IP
<input checked="" type="checkbox"/>	UniSketch Raw Panel	192 168 10 250

Save Network Configuration

Or it can be set in the IP Config tab of the SKAARHOJ Firmware Updater.

SKAARHOJ

MainIP ConfigSerial Monitor

IP Configuration

Use DHCP

☐ Enable

IP Address

192.168.10.99

✓

Subnet Mask

255.255.255.0

✓

Gateway

192.168.10.1

✓

DNS Server

192.168.10.1

✓

Device Cores

UniSketch Raw Panel

192.168.10.250

✓

☒ Enable

Cancel

Save Settings

Please note, in both methods, the IP address for the UniSketch Raw Panel device core does not need to be set to a specific IP as it has been set to Server Mode and is being connected to and not connecting to anything. Having it Enabled is enough.

The IP address will also be displayed on the panel along with “Waiting for Raw Panel”



Revision #2

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