

NERDQaxe⁺⁺



BITRONICS



NERD
MINER

Bitaxe

OPEN SOURCE MINERS UNITED

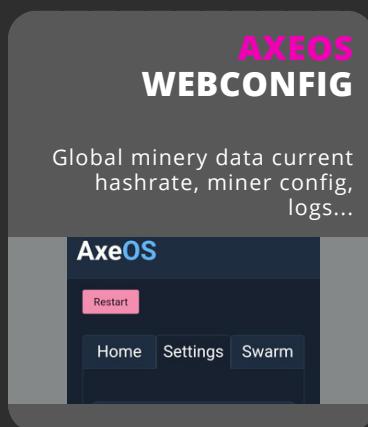
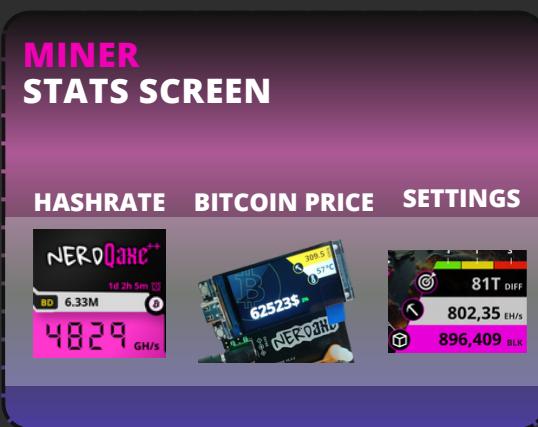
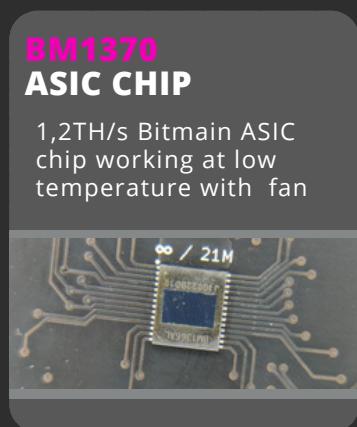
NERDQAXE⁺⁺

NerdQAx⁺⁺ is a **fully open-source Bitcoin** ASIC miner equipped with 4 BM1370 ASIC chip from Antminer's S21 Pro.

This design ensures efficient and powerful mining capabilities, achieving 4,8TH/s at an energy efficiency of ~20W/TH. It operates using a 12V DC power supply connected via a 2.1/5.5mm barrel jack connector.

At the core of NerdQAx⁺⁺ is the combination of ESP-miner and AxeOS, an open-source firmware that empowers you with full control over your mining operations. The intuitive web interface simplifies setting adjustments and performance monitoring, making mining more accessible and streamlined.

NerdQAx⁺ is an open-source miner based on Bitaxe project, designed to boost the hashing power of your NerdMiner.



FULL SETUP GUIDE

If you want to check all the Bitaxe details check the full guide scanning the QR code.

For any other question contact Bitronics team.



QUICK SETUP

Required time: 5 minutes

1 - Power up your NerdQAx with its power adapter (12V /8A). **Important:** Don't use any other power adapter.

2 - Wait until the text "**Connect to ssid: NerdQaxe_XXXX**" appears on the screen, and then from a mobile phone search for the **NerdQaxe_XXXX** wifi network and connect to it.

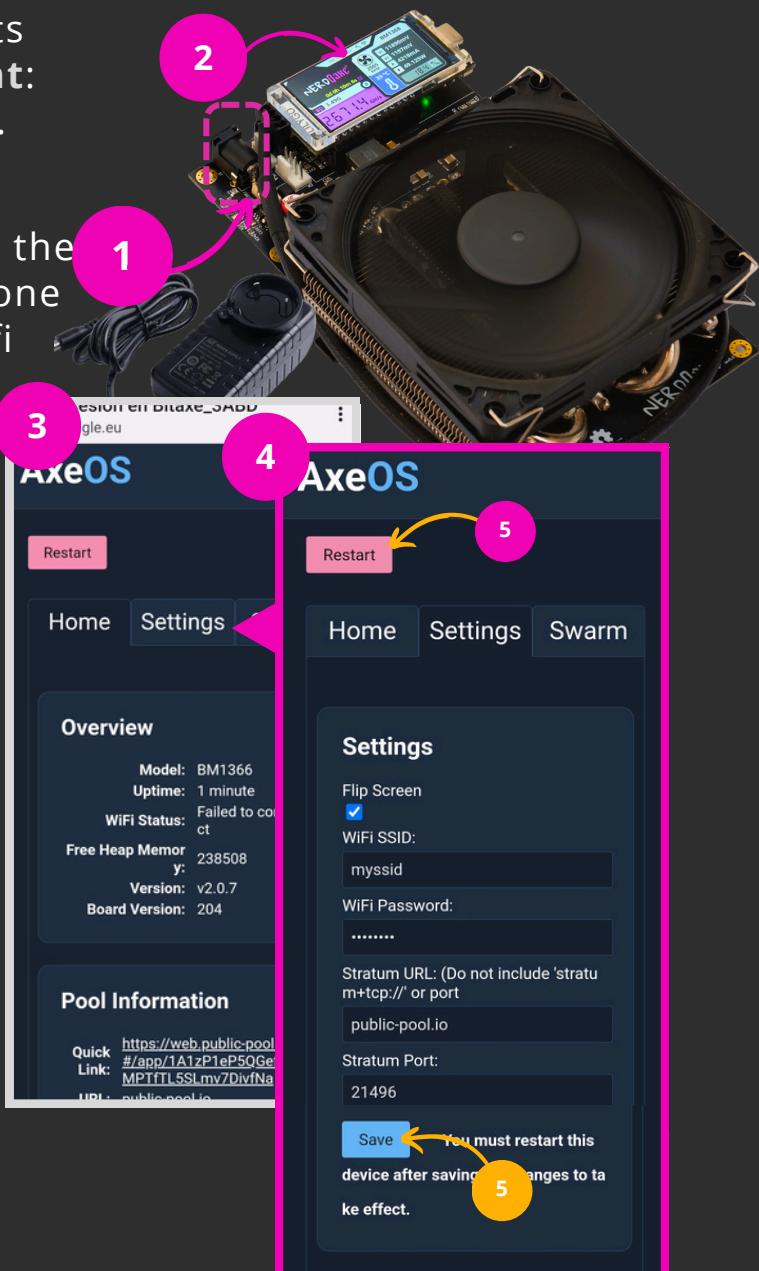
3 - Once connected, the following menu will be shown (3). Click on **Settings** to setup.

4 - Setup miner parameters:

- **WiFi/Password:** network credentials were you want to connect to.
- **Pool url/port:** introduce your pool settings or leave default
- **BTC address:** BTC address where you will receive prize.

4 - Press **Save** and **Restart**. After this Bitaxe will start working.

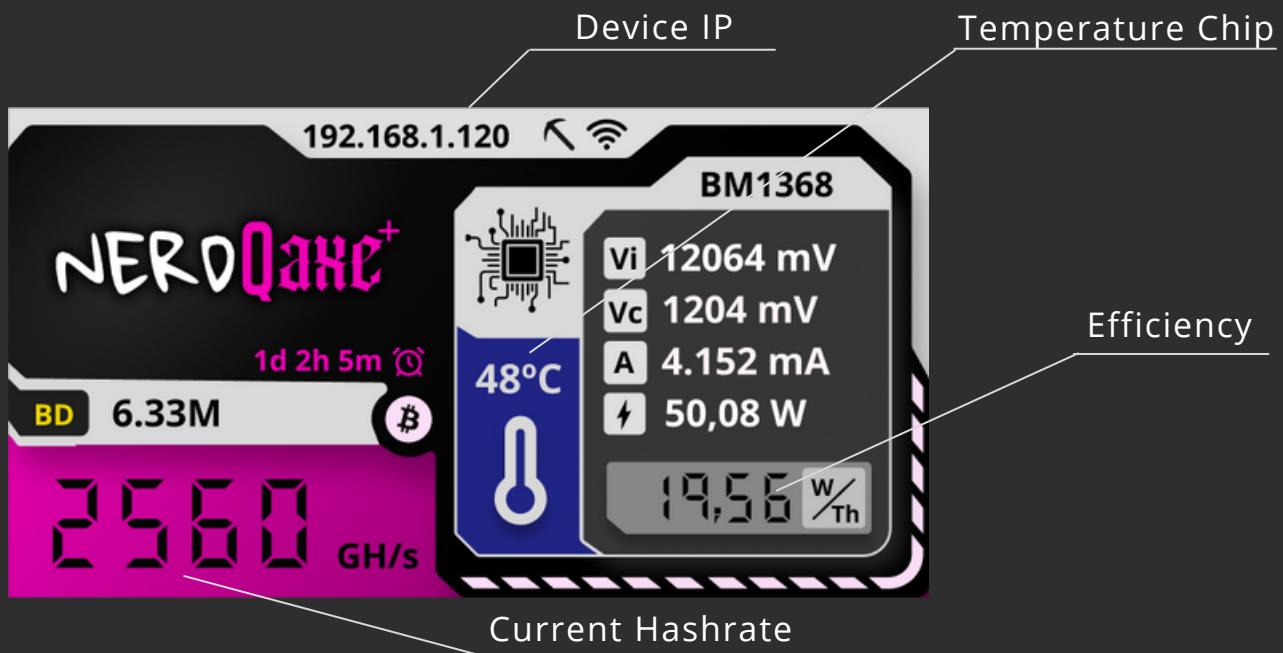
For any problem check full guide or contact Bitronics team.



NERDQAXE SCREENS

MAIN SCREEN

The following screen provides all NerdAxe stats, including mining values, chip temperature, and efficiency, among other details.

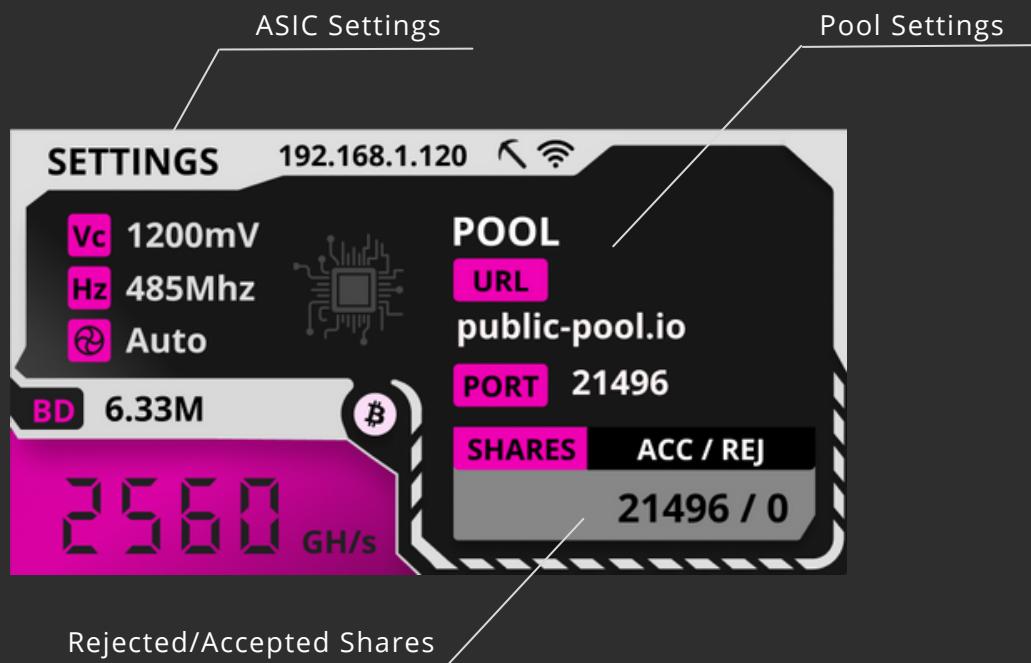


BD
Vi
Vc
A
⚡
风扇图标

Best difficulty: Best share gotten by miner
Input voltage: voltage of power supply
Core voltage: voltage readed at ASIC chip
Current: Current consumption
Power: total power consumption
Fan: revolutions per minute readed

STATS SCREEN

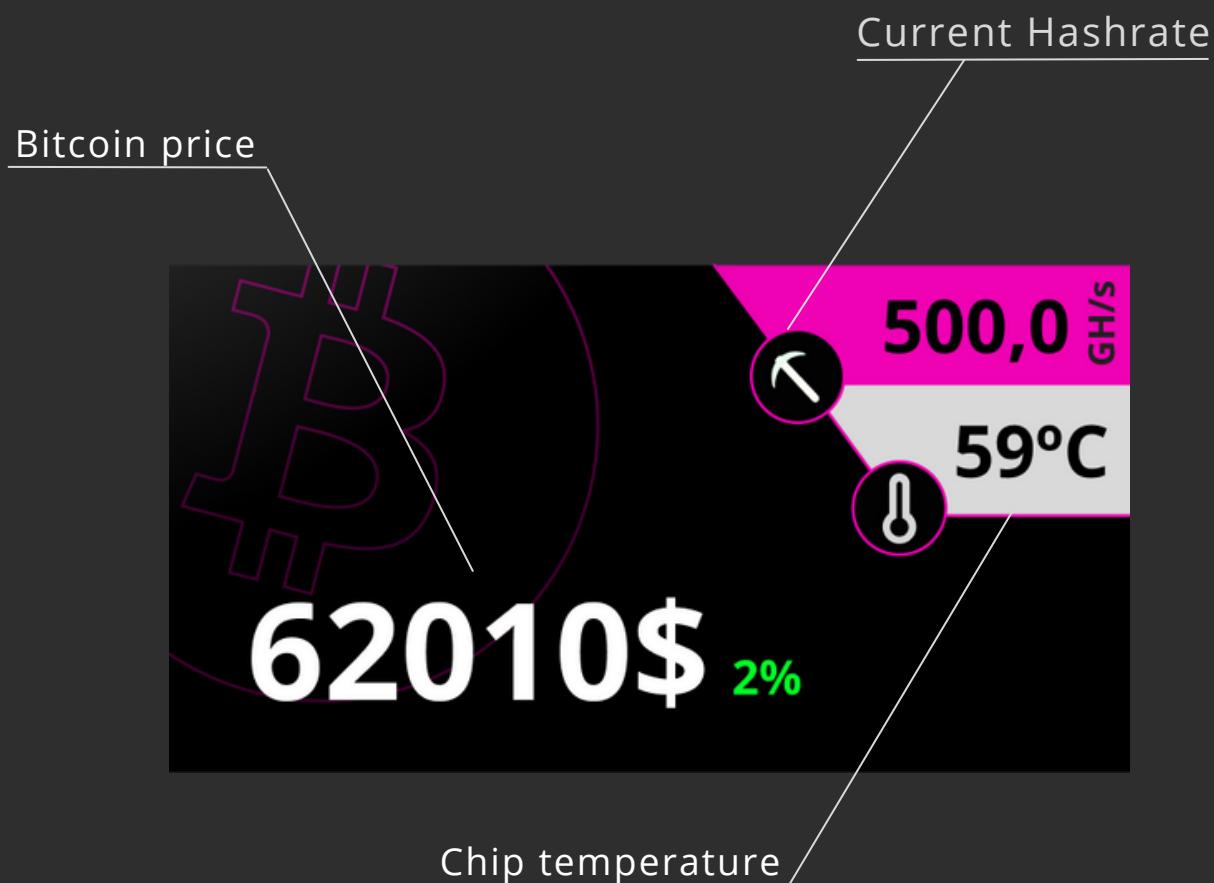
The following screen shows your configured settings, including the pool, IP address, and port for configuring axeOS.



Vc	Core voltage set: Configured ASIC core voltage
Hz	Freq set: ASIC frequency configured
⌚	Fan: configured fan behaviour
URL	URL: Pool configured URL
PORT	Port: Pool configured Port
SHARES	Shares: Accepted/rejected found shares

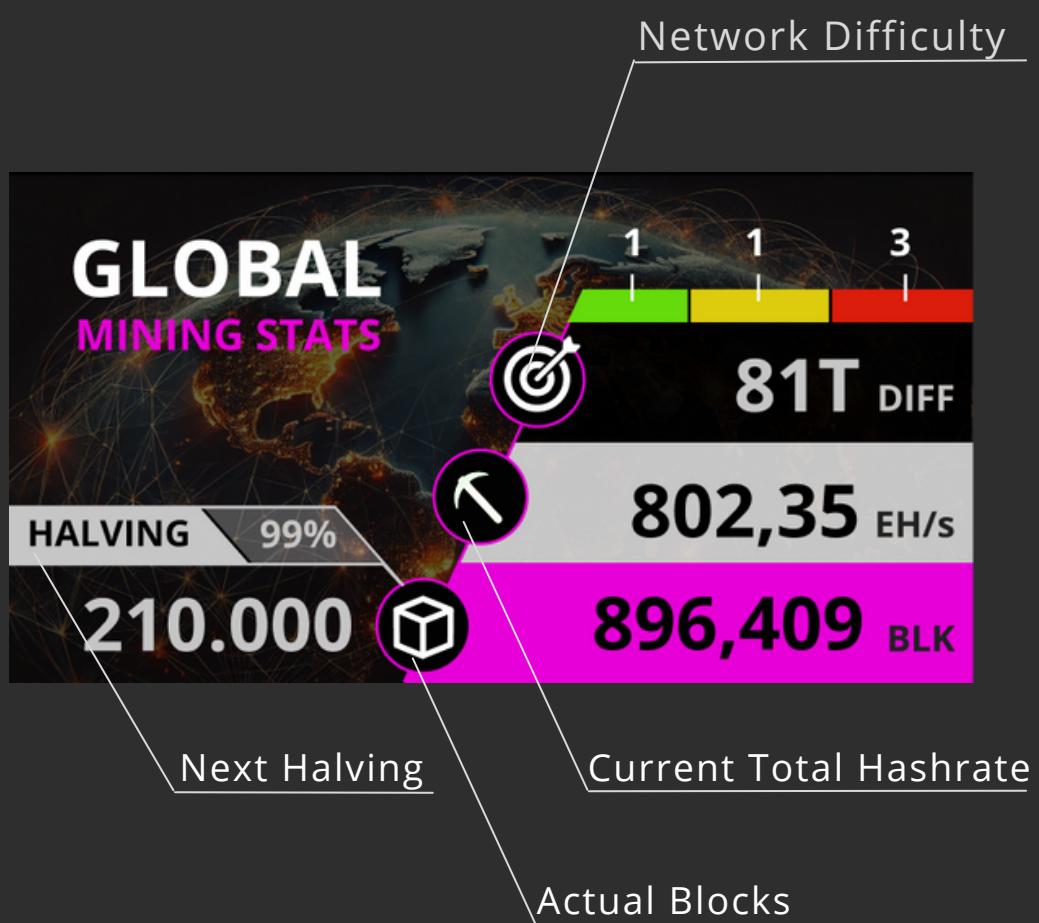
PRICE SCREEN

The following screen shows the actual bitcoin price, also the current hashrate and the chip temperature.

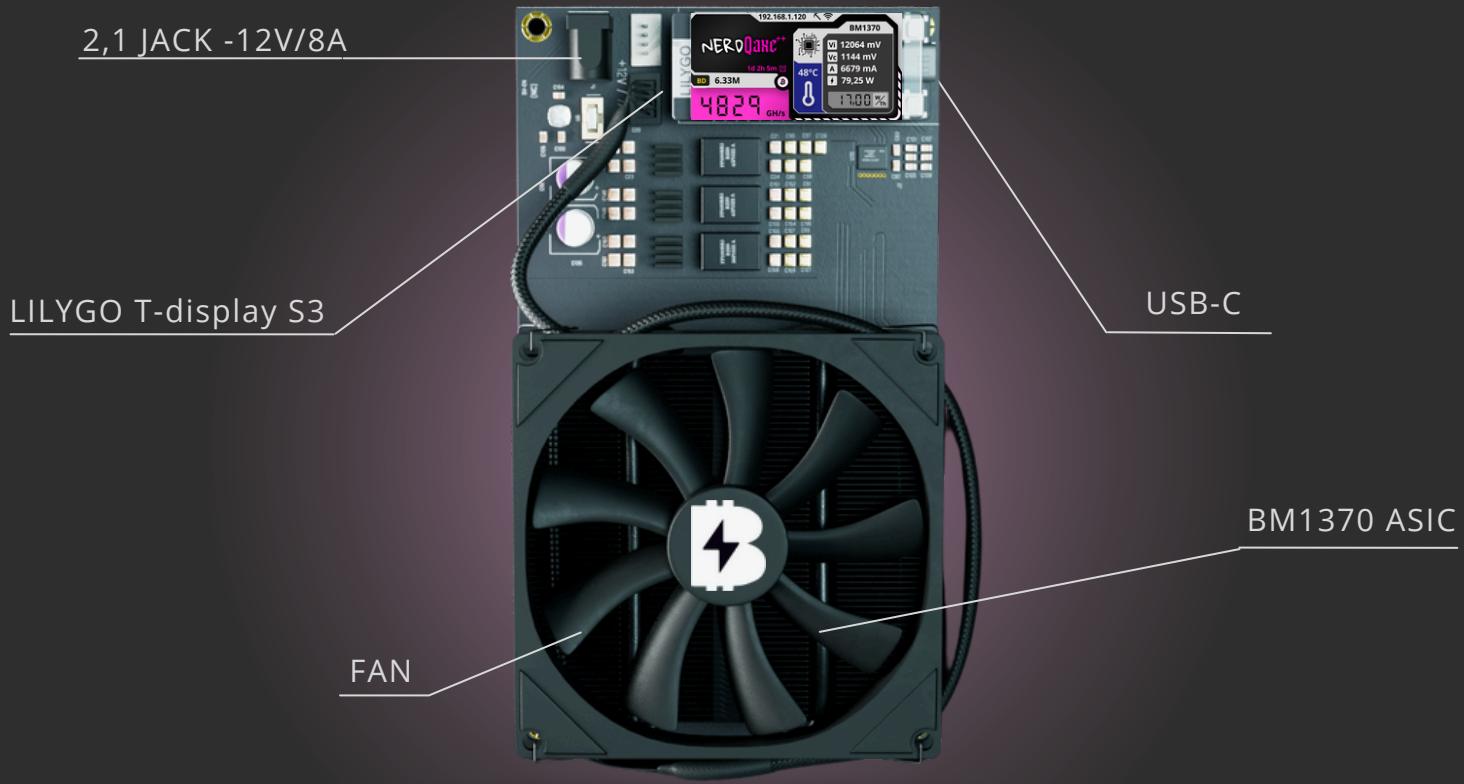


MINING STATS SCREEN

The following screen shows data related to mining stats, the next halving, actual blocks and the current Hashrate of the network.



ATTRIBUTES



Vcc: 12V
I_{max}: 8A
P: 80W
USB type: USB-C

Wifi: only 2.4GHz
MCU: ESP32-S3R8 Dual-core LX7 microprocessor
ASIC: BM1370

FEATURES

HIGH PERFORMANCE

Powered by the S21 Pro BM1370 ASIC chip

PLUG PLAY

Easy to setup, fully assembled, configure and play

ASIC TUNNING

ASIC Tuning via config portal, find your work

CONFIG PORTAL

Web config portal to setup your mining data

FULL SETUP GUIDE

TOOLS
NEEDED



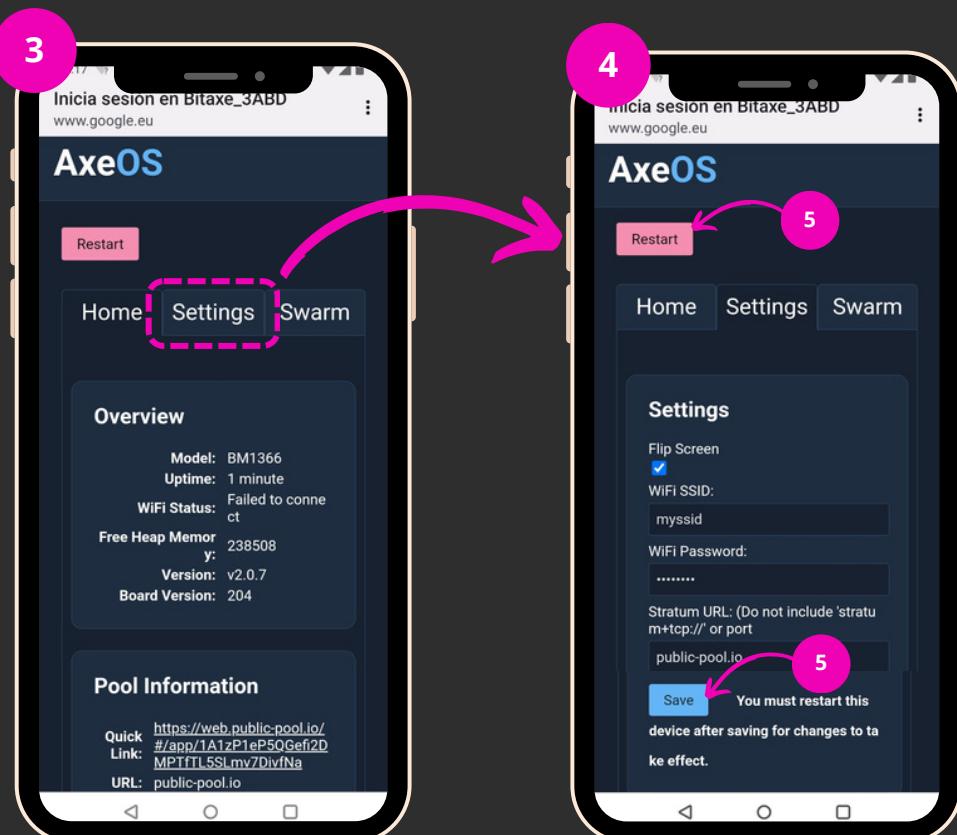
1 - Power up your Nerdqaxe with its power adapter (12V /6A). **Important:** Don't use any other power adapter.



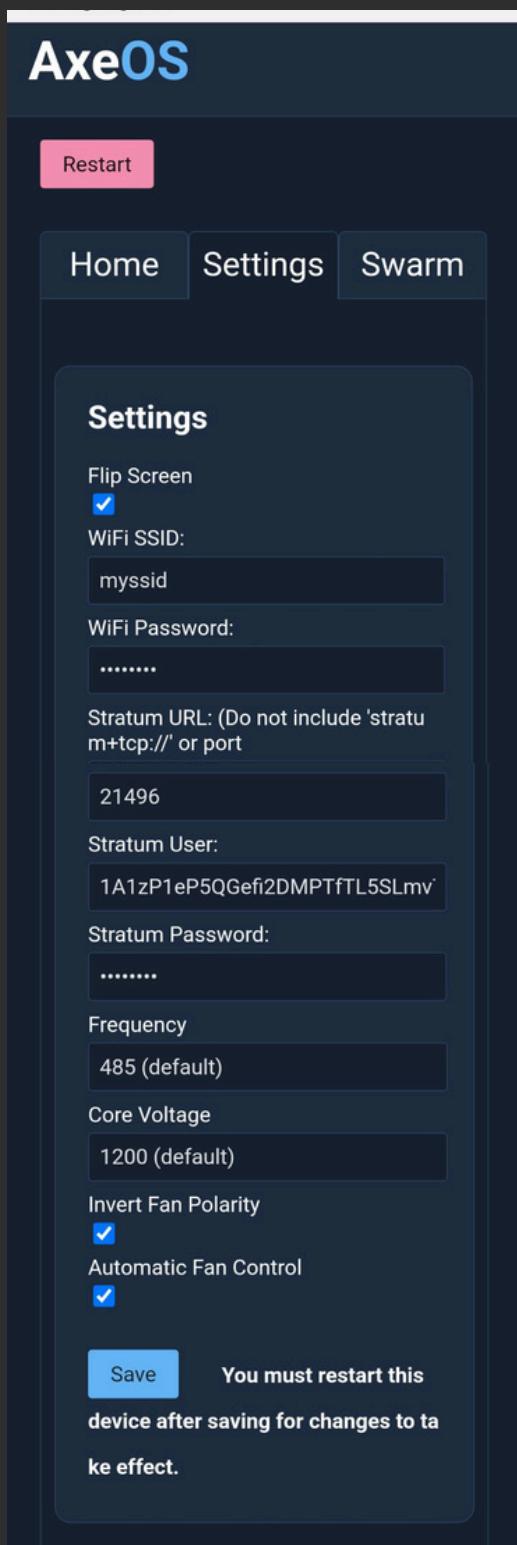
2 - Wait until the text "**Connect to ssid: Nerdqaxe+_XXXX_XXXX**" appears on the screen, and then from a mobile phone search for the **Nerdqaxe+_XXXX** wifi network and connect to it.

3 - Once connected, the following menu will be shown (3). Click on **Settings** to setup.

4 - Set your mining settings and then (5) press **Save** and **Restart**. After this Nerdaxe will start working.



NERDQAXE++ SETTINGS



Setup miner parameters:

- **WiFi/Password:** network credentials were you want to connect to. Get your home Wifi name and password and add it there.
- **Stratum url/port:** introduce your pool settings or leave default ones. Check compatible pools at bitaxe.org. Standard ones:

URL	Port
public-pool.io	21496
pool.ckpool.com	3333

- **Stratum user:** set your BTC address followed by your worker name. `<btcAddress>.<workerName>`
- **Stratum password:** left default value or specify one for pools who require.
- **Frequency:** ASIC work freq.
- **Core voltage:** ASIC core voltage.

ASIC TUNNING METHODOLOGY



Playing with frequency and core voltage let you find the best working point with your ASIC. Increasing or reducing hashrate or power consumption. **Be carefull to not force it too much.** Default values are the recommended ones.