



GUARDIANS
OF BLOCKCHAIN

GUARDIAN **MINI** MANUAL

Made with ♥ in Czech Republic 🇨🇪



Every miner races to solve a cryptographic puzzle.
Each guess, or “hash,” is like rolling the dice.



Multi-screen
display



Real-time
stats



Ultra
low-power



Fully
open-source



Learning
by doing



Specifications

Guardian MINI is a compact and low-power Bitcoin miner designed for learning and demonstrating the concept of solo mining.

Technical Specifications

Platform	LilyGo T-Display-S3
Processor	ESP32-S3 dual-core LX7 @ 240 MHz
Memory	8 MB PSRAM + 16 MB Flash
Display	1.9" TFT LCD (320×170px)
Connectivity	Wi-Fi 2.4 GHz
Power Supply	USB-C (5V, 500mA)
Hashrate	~250 KH/s

Controls

Top button: Switches between different screens. Long press (**10s**) resets the Guardian to factory settings.

Bottom button: Turns display on/off (miner keeps running). Double-click rotates screen.

Each Guardian you deploy sends a clear message:

“Bitcoin belongs to everyone!”



Quick-Start Setup

1

Unbox the Guardian, connect it to a power source via USB-C and power it on.

2

Connect to the Wi-Fi network named “**NerdMinerAP**” using the password “**MineYourCoins**”.

3

If a configuration dialog does not automatically appear after connecting to the Wi-Fi, open your browser and go to: <http://192.168.4.1> and click to “Configure WiFi”. Enter the name of your Wi-Fi network (SSID) and your password.

4

Enter the Pool URL (e.g. Public Pool: “public-pool.io”, or Braiins Pool: “stratum.braiins.com” or address of your REAL SOLO setup).

5

Enter the Pool port number (e.g. Public Pool: 21496, or Braiins Pool: 3333).

6

Enter your Bitcoin address (e.g. the address generated by your Trezor or another hardware wallet).

Note: We strongly recommend using a hardware wallet and not storing Bitcoin on exchanges or inside mining pools. Don't trust. Verify!

7

Click the “Save” button, and the miner will begin connecting to the pool you configured.

WiFiManager
NerdMinerAP

Configure WiFi

Info

Exit

Update

 Not connected to Wi-Fi

SSID

Select your wifi network from the list above

Password

Enter your wifi network password 

Pool url

Pool port

Your BTC address

Enter your BTC address here

TimeZone from UTC (-12/+12)

1

Refresh

Save



Flash Firmware Setup

For the **easiest installation**, use our ready-to-go flash tool. No technical setup or prior knowledge required.

1

Connect your NerdMiner to your PC using a USB-C cable.

2

Open <https://www.guardiansofblockchain.com/flash> 

Note: Firefox and Safari are not supported. Please use Chrome, Edge, or Brave.

3

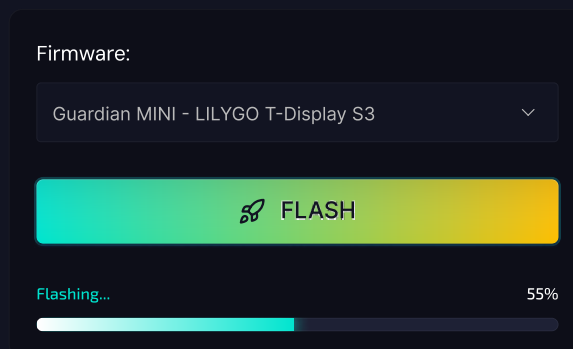
Select the firmware: “**Guardian 1.6.3 original board T-Display S3**”

4

Click the “**Flash!**” button

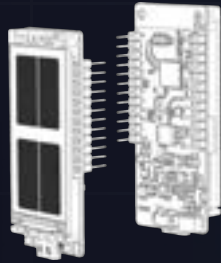
After flashing, the miner will **restart automatically** and display the **Wi-Fi setup screen** with a QR code. Your Guardian is now ready to be configured.

We **recommend this method** if you want to get started quickly — with zero hassle.

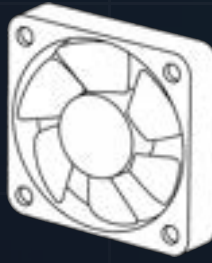


Build It Yourself

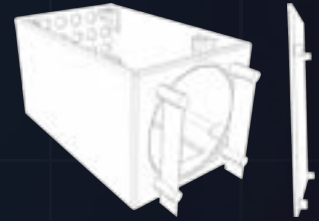
Here's all the components you'll need to build your own Guardian



LilyGo T-Display S3



25×25mm Fan



Case + Back

1

Insert the **LilyGo T-Display S3** into the **case** (align USB-C)

2

Seat the **25×25 mm fan** onto the four case posts

3

Connect the fan leads to the board pin header labeled 5V (red/+) and G (black/-)

4

Close the **back** cover

5

Flash your Guardian with the open-source firmware at <https://guardiansofblockchain.com/flash> 

Watch our **build tutorial**

<https://www.youtube.com/@guardiansofblockchain> 



Or skip all the boring bits and **Join The Movement!** Learn more on the next page. 



Resources & Next Steps

- Telegram & Community:

<https://t.me/guardiansofblockchain> 

- Guardian Pool:

<https://pool.guardiansofblockchain.com> 

- Further Reading:

Bitcoin: A Peer-to-Peer Electronic Cash System (Satoshi Nakamoto)

<https://bitcoin.org/bitcoin.pdf>



Bitcoin Mining Glossary

<https://braiins.com/books/bitcoin-mining-glossary>



Centralization and monopolization of Bitcoin mining (František Kohout)

<https://guardiansofblockchain.com/centralization-and-monopolization-of-bitcoin-mining.pdf>



<https://guardiansofblockchain.com/centralize-a-monopolize-tezby-bitcoinu.pdf>



From Defenestrations to Bitcoin - A 600-Year Fight for Freedom

<https://pages.btcprague.com/download-free-e-book-from-defenestrations-to-bitcoin-pp>



The Ultimate Bitcoin Mining Guide (Kristian Csepcsar)

<https://braiins.com/books/the-ultimate-bitcoin-mining-guide>



Bitcoin Mining Handbook (Daniel Frumkin)

<https://braiins.com/books/bitcoin-mining-handbook>



Bitcoin Mining Heat Reuse (Tyler Stevens)

<https://braiins.com/books/bitcoin-mining-heat-reuse>



Every hash you contribute helps decentralize Bitcoin.

Thank you for being a Guardian! ❤️



Skot9000

<https://github.com/skot>



OSMU

<https://osmu.wiki>



BitMaker

<https://github.com/BitMaker-hub>



Bitaxe

<https://bitaxe.org>



OSMU Discord

<https://discord.com/invite/osmu>



Benjamin Wilson

<https://github.com/benjamin-wilson>

