

## We are building

Are you interested in creating your own hardware solutions, but don't know where to start? At LNbits, we believe that custom hardware solutions should be accessible to everyone.

Discover our innovative software building blocks! With our powerful tools, you can easily design, build, and flash custom hardware tools. Whether you're a hardware enthusiast or a professional developer, our intuitive tools make it easy to create hardware solutions for everyday problems.

Simply purchase your own hardware and use our software blocks to start building custom hardware in no time. Our cutting-edge development tools will elevate your hardware design to new heights, enabling you to create unique solutions that meet your needs. Join the hardware building revolution today and start bringing your hardware ideas to life!

## Hardware needs

Our recommended hardware includes everything from Raspberry Pi to Arduino, as well as other components and modules such as sensors, displays, and actuators. Whether you're building a vending machine, a LNPos, or any other type of custom Lightning hardware solution, we have the software components you need to get started.

With our easy-to-use software, community tested sketches and recommended hardware, you can quickly and easily create custom hardware solutions that meet your unique needs.

## What is LNbits

LNbits is a free and open-source app, that can be installed on top of a LN node.

LNbits acts as an interface between the user and a LN node, providing a simple, user-friendly way to manage and extend features for interacting with the payment network.

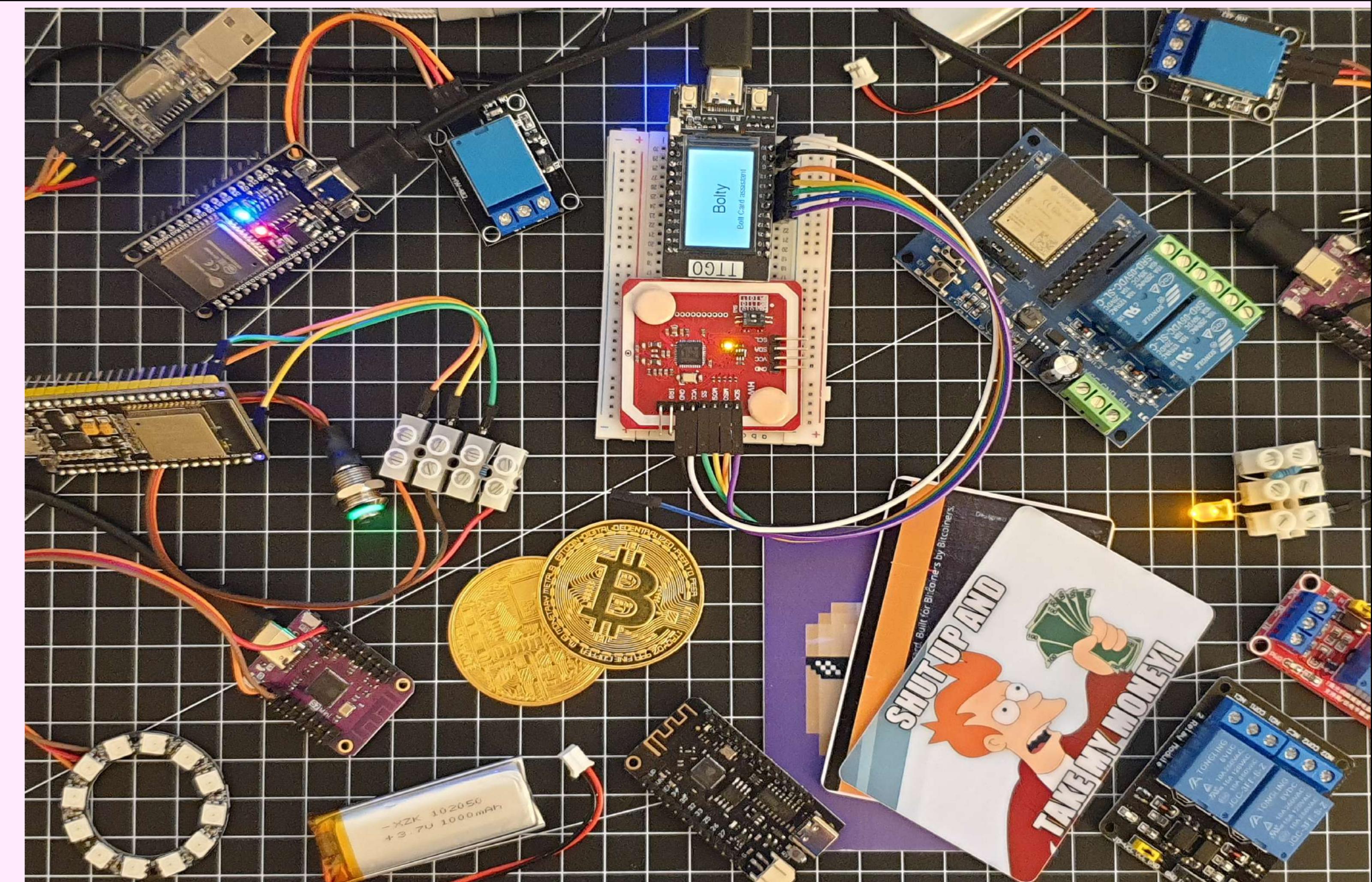
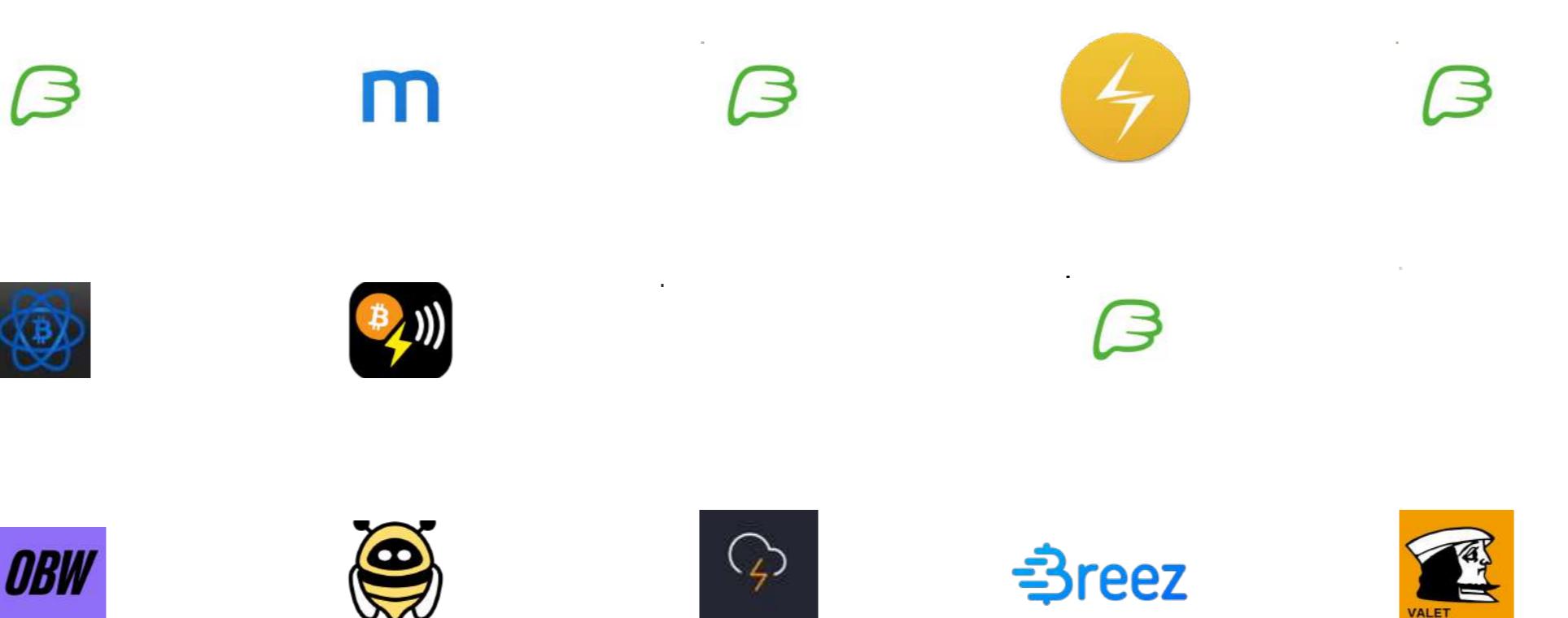


Demo server to play around and find out more about Lightning and LNbits

Reach out to the MakerBits group to start, finish or show off your project.

LNbits is a powerful and reliable platform that's perfect for merchants looking to tap into the benefits of Bitcoin Lightning Network payments. So why not give it a try and join the growing community of businesses and developers who are leading the way towards a more free and decentralized financial future?

## All major LN Wallets supported



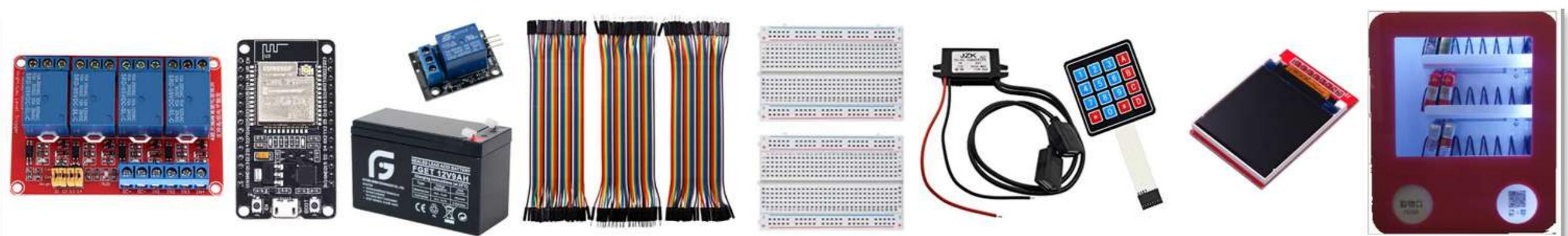
# Build & Create

Custom Hardware Solutions

“Cypherpunks write code.  
We know that someone has to  
write software to defend privacy  
and we’re going to write it” -  
Eric Hughes, Cypherpunk Manifesto

## What do you want to build today ?

No matter what hardware you have, whether it's an ESP32, Raspberry Pi, LNbits has the software building blocks you need to bring your custom hardware projects to life. With our innovative software solutions and recommended hardware components, you can realize your goals and create custom hardware solutions that meet your unique needs.



With a variety of sketches and tutorials we guide you through the whole process from buying the hardware to wiring and flashing your device.

## No coding required!

You don't need to be able to write code to bring your custom hardware projects to life. Our web-based installer allows you to upload pre-written sketches to your hardware, making it easy to flash your device and get started with your project.

Whether you're a seasoned developer or a complete beginner, our web installer makes it easy for you to get started with your custom hardware projects. With LNbits, anyone can create custom hardware projects that meet their unique needs, without the need for extensive coding knowledge or experience.

## Hardware Requirements

We have tested and recommend a wide variety of dedicated hardware components that work well with our software building blocks. Here are some examples of commonly used dedicated hardware components for custom hardware solutions:

- **ESP32:** A popular board for custom hardware solutions due to its built-in Wi-Fi capabilities, low power consumption, and affordable price.
- **LilyGo TTGO ESP32:** Another popular ESP32 board. It features a built-in OLED display, a microSD card slot, and can be easily programmed.
- **LILYGO T-Display:** A versatile display module. It features a 1.14 inch LCD screen, a built-in battery, and can be easily connected to an ESP32 board.
- **5V Relay:** A 5V relay is commonly used to turn things on a payment.
- **Coin and Bill Acceptors:** Coin and bill acceptors can be used in custom ATMs, but you could also use them in vending machines.
- **Step Down Converter:** Sometimes required for certain components in our solutions.
- **Raspberry Pi:** A popular single-board computer that can be used for a wide variety of bigger custom hardware solutions.



## LNPos Terminal

Our Bitcoin LNPos device is a point-of-sale system that allows you to easily accept bitcoin and bitcoin via lightning payments for your business - online and offline! With its user-friendly interface and secure hardware, the LNPos device makes it simple to start managing your sales transactions.



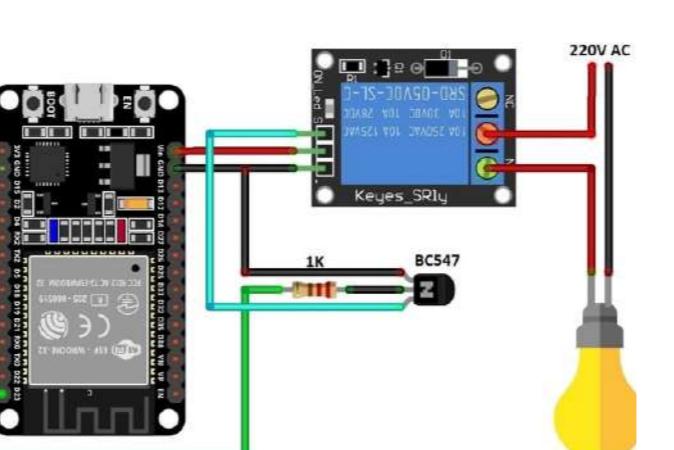
## Hardware Wallet

Our LNbits Bitcoin Hardware Wallet is a secure and convenient way to store your bitcoin. With our hardware wallet, you can store your private keys offline and keep your bitcoin safe from online threats.



## Gerty

Gerty is a unique Bitcoin assistant that helps you manage your LNbits wallet, track your Bitcoin transactions and stay up-to-date on the latest news and trends in the world of Bitcoin.



## Turn things on

The BitcoinSwitch is a setup that allows you to trigger physical actions based on different actions like payments or authentications. When you're feeling brave you could add NFC functionality in a next step.

The BitcoinSwitch is a versatile tool for integrating bitcoin payments into real-world applications like beertaps or the famous Pollo-Feed.



## Vending machine

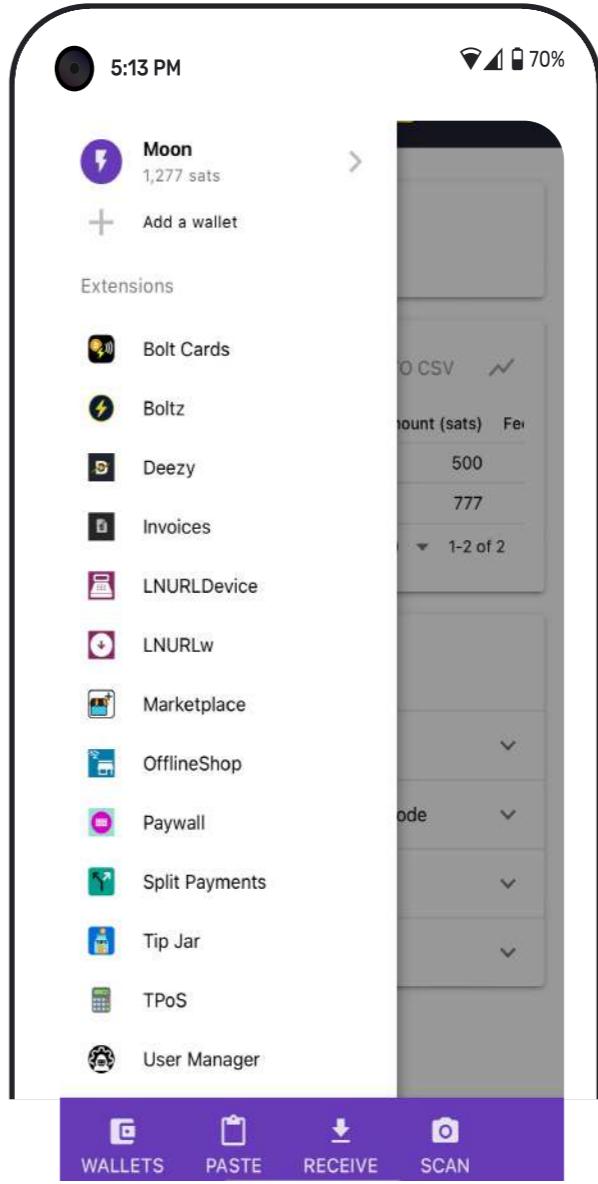
BitcoinVend is an open-source project that enables you to create an offline Bitcoin vending machine using a Raspberry Pi and some basic hardware components. With its customizable software and easy-to-use interface, BitcoinVend is a fun and practical way to explore the world of Bitcoin and build your own vending machine.



## Arcade machine

Our LNbits Arcade Console Games Machine Kit is a fun and educational DIY project for kids and adults alike.

With its built-in games and Bitcoin Lightning Payments integration, the LNbits Arcade Console is a unique and engaging way to learn about electronics, programming, and Bitcoin technology.



## Extensions

Tailor all of your LNbits accounts to your individual workflows and very unique products by using our extensions. You might know Plugins on Wordpress for your website, extensions work in a similar way - just for your bitcoin account. They offer a range of additional features such as automatic payment forwarding to your hardware-wallet, NFC-Cards and lots more.

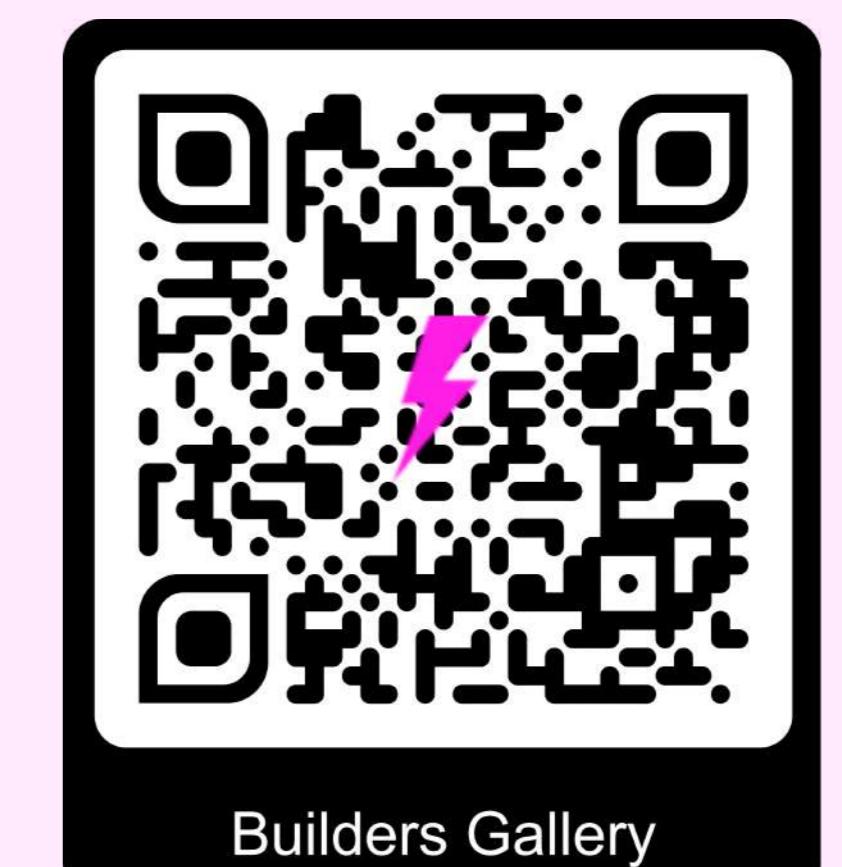
Best of all, our platform is free, easy to use, free of inflation and open source ! Try this with your bank.

## Get Inspired

Check out our guides and project gallery, which feature a broad range of easy to install, innovative and fun projects built by the LNbits community. View our detailed guides for these and a whole lot of other ones and start building your own custom hardware tools ! It is easier much than you think!



**LNbits**



Builders Gallery



Builders Wiki