The DeFi Codex: 2025

An Insider's Guide to The Future of Finance

By Anons

"sic parvis magna"

Read all Disclaimers before proceeding forward.

Disclaimers

- **Purpose and Responsibility**
  - This educational manual can help individuals understand and navigate Decentralized Finance (DeFi).
  - This manual is for educational purposes only and should not be considered financial, legal, tax, or investment advice.
  - Individuals or entities referencing this manual assume full responsibility for their actions. Always do your own research.
- **External Links**
  - Links provided in this manual are intended for navigation assistance only and are not promoted for profit by the author.
  - While the author makes every effort to ensure links are safe, they are not responsible for external content. Links are subject to change and are beyond the author’s control.
- **Financial Decisions**
  - Any financial decisions made from reading and applying the material in this manual are solely the reader's responsibility.
- **Accuracy and Updates**
  - Products, services, and steps mentioned in this manual may change over time. The author is not responsible for updating or correcting outdated information.
  - Readers are encouraged to cross-check all information with unbiased sources to ensure accuracy.
- **Guidance Only**
  - This manual provides a guide to generally accepted best practices in the crypto space and is not a definitive authority. It is not intended to be treated as infallible.
- **Clarity and Simplification**
  - This guide is written for accessibility and education, aiming to be as clear and concise as possible.
  - Some steps or definitions may be simplified for clarity. Nuanced explanations that add little value to the reader’s understanding are intentionally omitted.
  - Readers remain responsible for validating steps, products, and services through additional research.

Security

General Security Awareness

- Do NOT click links you are unfamiliar with or have not vetted through multiple unbiased sources.
- Double- and triple-check with non-invested parties to ensure a link is safe.
- Do NOT respond to people who message you directly through X (formerly known as Twitter), Telegram, Discord, WhatsApp, or any other social media platforms you may choose to use, as they are often scammers.
- Do NOT make approvals in your wallet for contracts you are unfamiliar with or have not vetted through multiple unbiased sources.
- Do NOT download software you are not familiar with or have not vetted through multiple unbiased sources.
- Do NOT share your Seed Words (a.k.a. private words) with anyone, including family members or friends.
- Do NOT save your Seed Words on digital devices, emails, or take pictures of them. Write them down on paper or engrave them on steel or titanium plates.

Cold Wallets

Hardware wallets (*recommended*)

- A hardware wallet is a physical device for securely storing cryptocurrency private keys offline. It keeps your keys safe from online threats by never exposing them to the internet. Transactions are signed within the wallet, ensuring security. Physical confirmation is often required for transactions, adding security. Notable examples include: Trezor (recommended https://trezor.io/), Ledger, and KeepKey. These wallets support multiple cryptocurrencies and connect via USB or Bluetooth.

Paper wallets (not generally recommended)

- A paper wallet is a physical document that contains printed or handwritten private and public keys to cryptocurrency. It's an offline method for storing crypto, where keys are often generated online and printed for safety from digital theft. However, it lacks the security features of hardware wallets like tamper-resistance.

Hot Wallets

Desktop

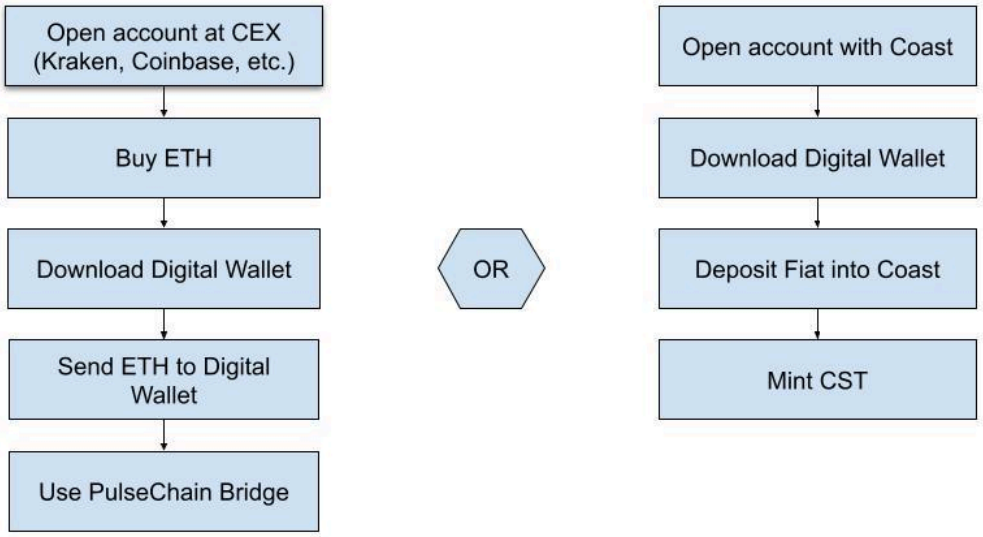
- A desktop wallet is a software program (e.g., Rabby) installed on a personal computer to manage and store cryptocurrency. It keeps your private keys on your local machine, offering more control than online wallets. However, it is vulnerable if the computer is compromised by malware or hackers.

Mobile

- A mobile wallet (e.g., Rabby) is a smartphone app for storing, sending, and receiving cryptocurrencies. It provides convenience and accessibility but can be less secure than hardware wallets due to the potential risks associated with mobile devices, such as theft or malware.

Flow Chart

This Codex outlines two paths for individuals to interact with the PulseChain network:



Setting up Rabby Wallet

It will be helpful to first read through all the steps before taking action.

If you decide to use a hardware wallet like Trezor, you can use it in conjunction with your Rabby wallet. How to use Rabby Wallet with Trezor

1. Before starting the wallet creation process, make sure you are in a safe location where no one can see your screen.

2. Select a computer or phone to install. Preferably, the selected device has basic security measures in place, such as passwords, FaceID, etc. These basic measures will not be discussed here. Please refer to professionals or YouTube for general best practices regarding the security of your devices.

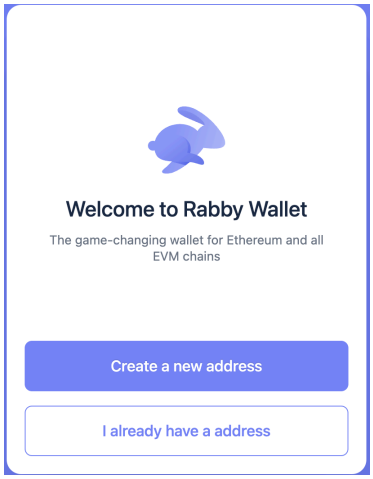
3. The official and most trusted site to download Rabby for any device is:
   https://rabby.io/

   If you are downloading the Chrome browser extension, you will be redirected from the website to the Chrome extensions page to download.

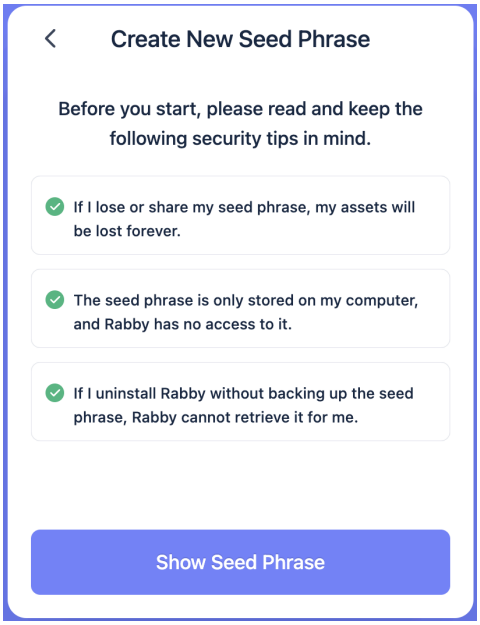
   The choice between using Rabby, MetaMask, or another wallet is a personal one. However, these two products mentioned are generally accepted as safe options as long as you ensure your download originates from the official sites.

4. Click “Add to Chrome,” then click “Add Extension.”

a. Create a new address unless you already have a set of seed words and intend to import a wallet (*not discussed in this section*);

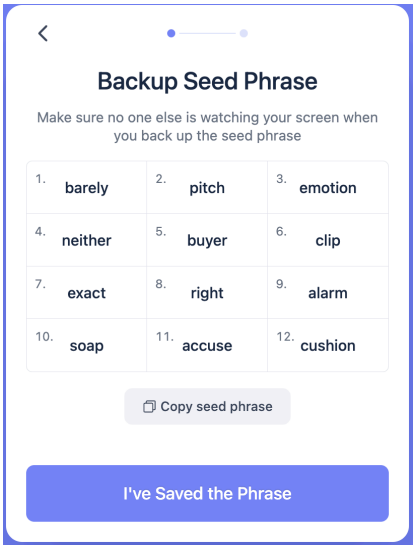


b. Read Rabby disclaimers, and when you are certain no one is looking at your screen, click "Show Seed Phrase;"

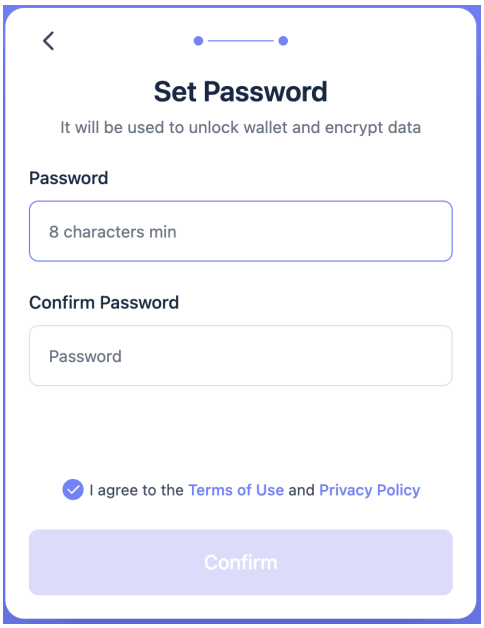


c. SEED WORDS IN THIS SECTION ARE SHOWN FOR EDUCATIONAL PURPOSES ONLY. DO NOT TAKE SCREENSHOTS OR PICTURES OF YOUR SEED WORDS.

Write down your seed words (a.k.a. seed phrase) in sequential order with paper and pen;



d. Set a password and agree to the terms of use;

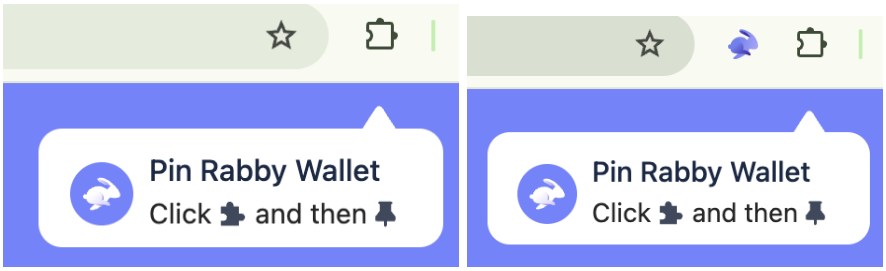


A password and seed words are different concepts. A password unlocks the app to access your wallet(s). Seed words permit you to interact with the blockchain.

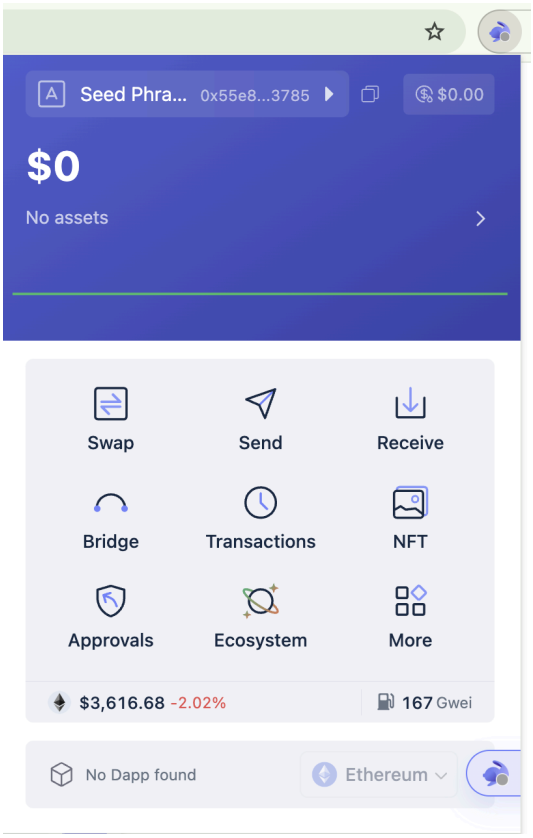
- You cannot recover your account if you lose your Seed Words.

- If you forget your password, you can recover your account with the Seed Words.

e. Now you are set up. For convenience, click the puzzle icon in the top-right corner of the browser and pin the new Rabby extension to your toolbar for easy access;



f. Click on the Rabby icon, and you will see the pop-up extension;



Across the top, your wallet address starts with “0x,” followed by a series of numbers and letters. This wallet address is unique to you. It is a 42-character address. When receiving tokens in your wallet, this is the address you will use. The copy icon is conveniently located to the right of the wallet address. It is good practice to check the first and last set of characters when transacting with any address to ensure the correct one is used.

If an address is incorrect, even by just one number or letter, someone other than your intended recipient will receive whatever tokens you send. So, just like when sending an email or real mail through the post, you are responsible for ensuring the address is correct before you click Send.

Make sure to check addresses multiple times for accuracy, especially when sending large sums of money. For extra caution, you can also send a small test amount to your intended recipient and verify that they received it before sending the rest of the funds.

Sending Crypto Off an Exchange

Setting up an exchange account (e.g., Coinbase or Kraken) depends on your country of residency. Therefore, this manual will not cover the step-by-step details of the initial setup, which often requires account owners to disclose Know Your Customer (KYC) and Anti-Money Laundering (AML) information.

Notes for General Best Practice:

- Centralized Exchanges (CEX) and banks typically treat your deposits as unsecured loans. This means that if they go bankrupt, they can use those funds to pay off their creditors. Therefore, it's generally best practice to keep minimal funds on these platforms and instead transfer your crypto to your own personal digital wallet for safety.

- CEXs might offer yield on certain assets via staking or similar methods. Remember, this can increase risk by locking up your assets and letting the CEX manage them for you. Additionally, in many countries, earning yield can be a taxable event, potentially requiring you to report it on forms like the 1099 or equivalent. Consider these factors carefully before deciding to proceed.

- CEXs make money by charging transaction fees, which can vary widely. It's up to you to find the CEX with a fee structure that suits you best. Generally, CEX fees are higher than those you'd encounter on Decentralized Exchanges (DEXs).

- This isn't an endorsement, but if you choose Coinbase, be aware that there are no fees for converting between USD and USDC, a stablecoin. This could save you money by allowing you to buy just enough ETH for on-chain transactions.

General Steps to follow:

1. In your Rabby wallet, make sure you've selected the right Network (e.g., Ethereum), then copy your wallet address.
2. Go to your CEX and select the asset you want to send off the CEX.
3. Select Transfer or Send.
4. Ensure the Network matches the network from your digital wallet.
5. Paste the address you copied from Rabby.
6. Enter the amount of the asset you want to send.
7. Before hitting send, verify again that you have the correct recipient wallet address and the correct network. If you are certain the asset, amount, network, and the address are correct, you can proceed forward with sending the transaction.

Setting up Coast Account

Setting up a Coast account depends on your country of residency; therefore, this manual will not cover the in-depth details of the initial setup that often requires account owners to disclose Know Your Customer (KYC) and Anti-Money Laundering (AML) information.

Coast has a comprehensive support website that walks through various scenarios tailored to an individual's specific needs in setting up an account: https://intercom.help/0xcoast/en/

Coast differs from CEX because it is a non-custodial on/off-ramp and stablecoin for PulseChain.

Coast earns revenue by charging fees on its platform, but you can lower these fees by purchasing and locking WAIT tokens on the platform.
https://intercom.help/0xcoast/en/articles/8834627-lock-wait-for-reduced-platform-fees

Coast offers the first stablecoin (CST) native to PulseChain. A native stablecoin can reduce risks associated with using a Bridge in crypto.
https://intercom.help/0xcoast/en/articles/7934378-how-do-i-mint-cst

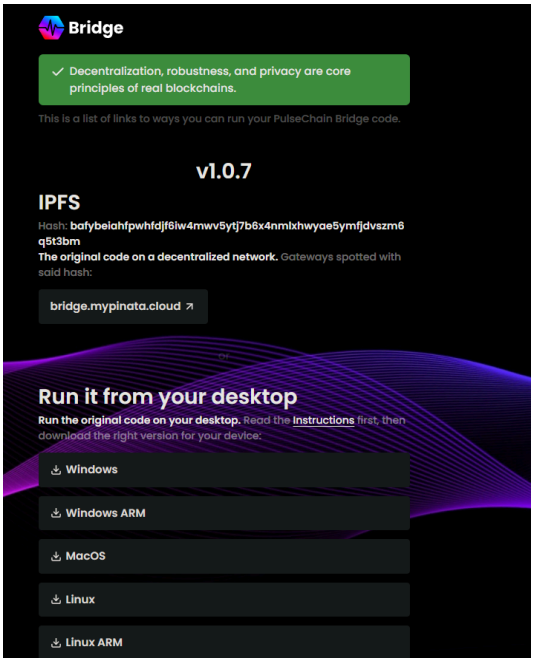
How to use the PulseChain Bridge

It's crucial to remember that crypto was designed to be decentralized, eliminating middlemen and reducing counterparty risk. However, an often overlooked point of failure is websites; hosting platforms can arbitrarily decide to delist or censor content.

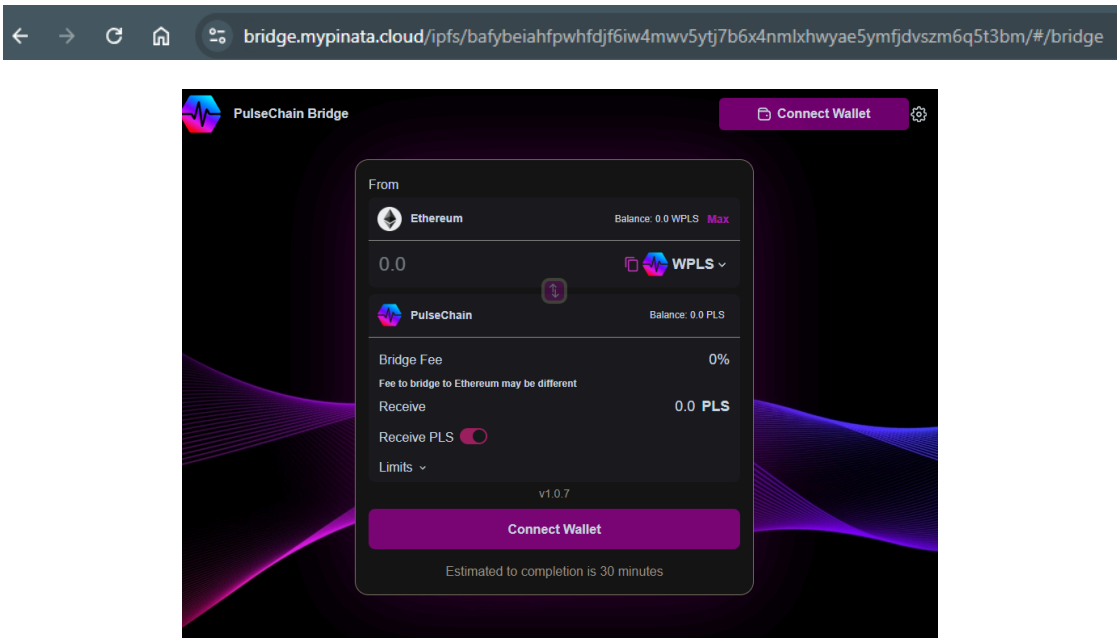
A novel solution to this censorship is to download and run the code directly from your computer or use a censorship-resistant IPFS link.

It will be helpful to read through all the steps before taking action.

1. Visit https://bridge.pulsechain.com/
   Here, you can choose to open an IPFS link or download the software to your desktop. This tutorial will cover the IPFS link, although downloading software is not difficult.
   Click “bridge.mypinata.cloud”:

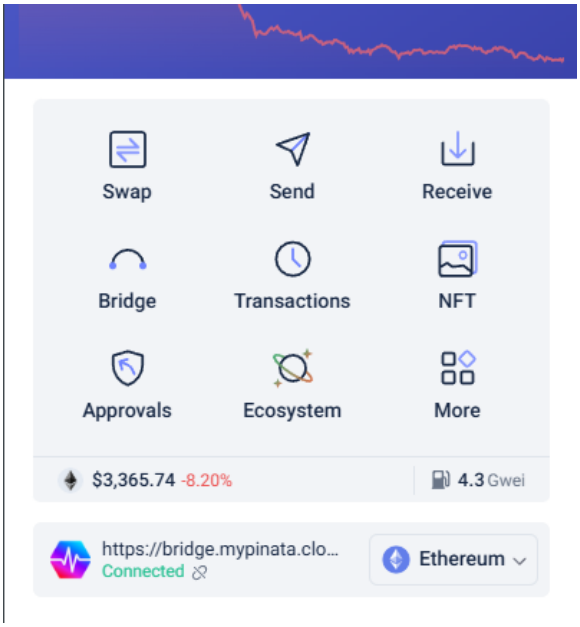


2. You will be taken to an IPFS site with a web address that looks something like the screenshot below. If it's not an exact match, that's okay because, from time to time, the version gets updated, so it is subject to change:

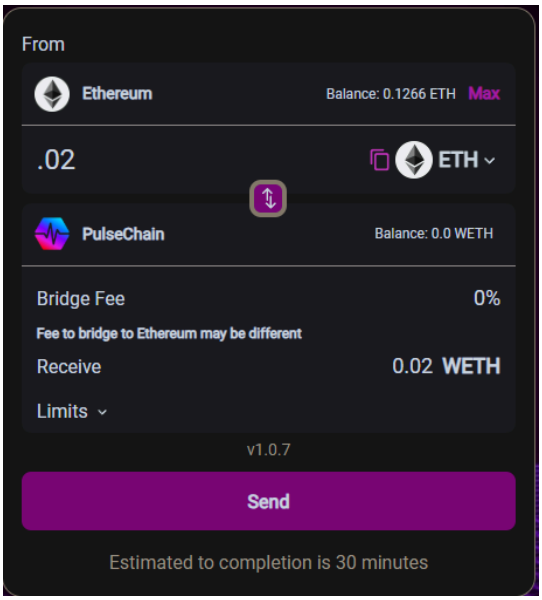


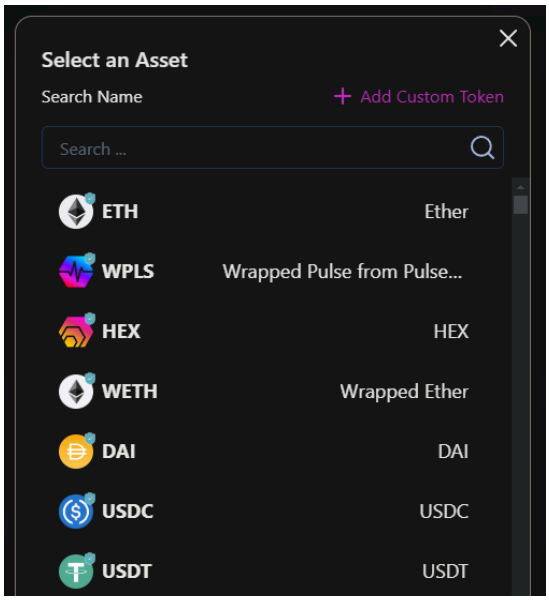
3. Connect your digital Rabby wallet to the bridge in the top right where it says “Connect Wallet”

4. If you are bridging from Ethereum to PulseChain, make sure the Ethereum network is selected in Rabby:

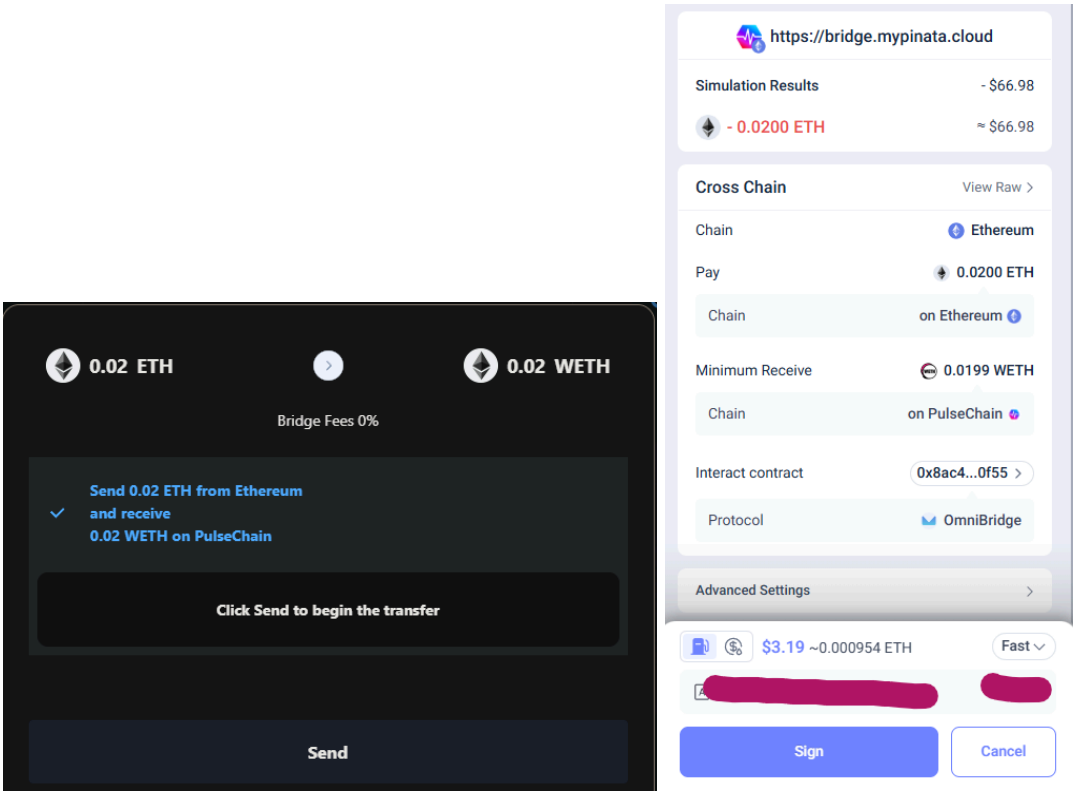


5. Next, select the token you want to bridge over from the drop-down menu:

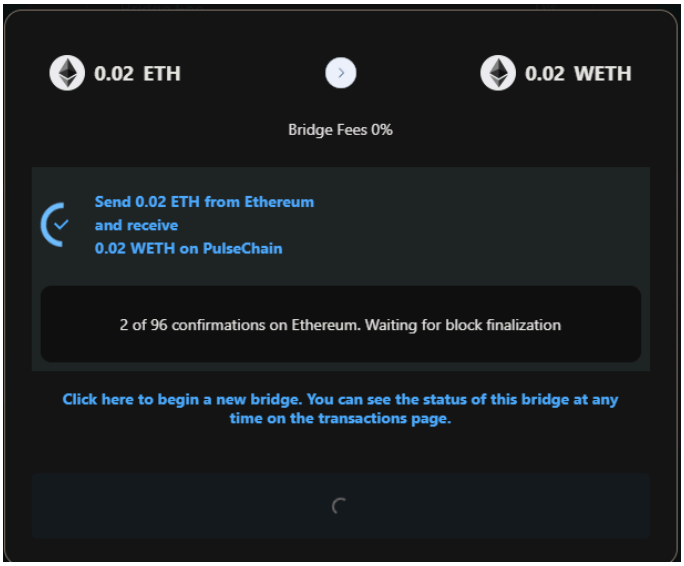




6. Hit Send, and a Rabby pop-up window will ask you to approve the transaction. If this is your first time using the bridge, you might have two transactions to complete. The first transaction will permit the bridge to access your wallet, and the second transaction will start the process of bridging over your funds:



7. You will need to wait for 96 confirmations, or 96 confirmed blocks on Ethereum network, as a part of the security and consensus protocol:



8. If you've never used the PulseChain network with this wallet, you'll need PLS tokens to cover gas fees, similar to using ETH on Ethereum. While you're waiting, now is a great time to set this up.

   There is a community-funded bot that will automatically detect a bridge transaction associated with a wallet address that has never interacted with PulseChain, and it will deposit 3,690 PLS for free. https://pulsecoinlist.com/bridgebuddy

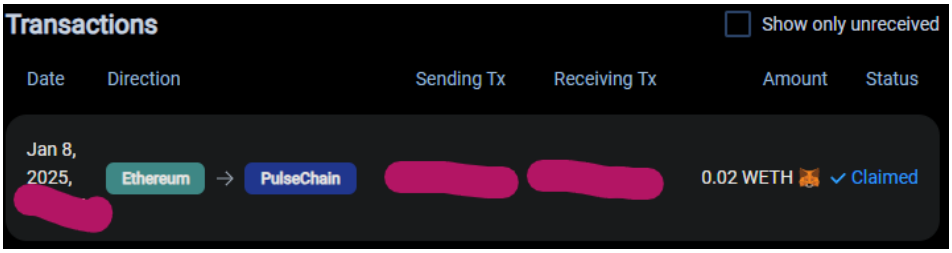
   If Bridge Buddy doesn't automatically detect and send free PLS, try https://getpls.fyi/. This site will prompt you to copy and paste your wallet address, after which a bot will send you 1,000 PLS for free.

   Another option is to use Rabby GasAccount. GasAccount is a unique feature of Rabby Wallet that allows you to deposit USDT or USDC and use it to pay gas fees for any address across all networks integrated with Rabby. It provides a unified gas solution for all your addresses on any chain. Rabby GassAccount

   If you're willing to pay a small fee for convenience, consider using a cross-chain swap platform like https://portalxswap.io/

or https://pulseswap.io/.

9. After 96 confirmations, your tokens will be available in your wallet. If you didn't have PLS in your wallet before the final confirmation, your transaction will be pending until you fund your wallet with PLS from methods in Step 8 and claim your tokens from the bridge:

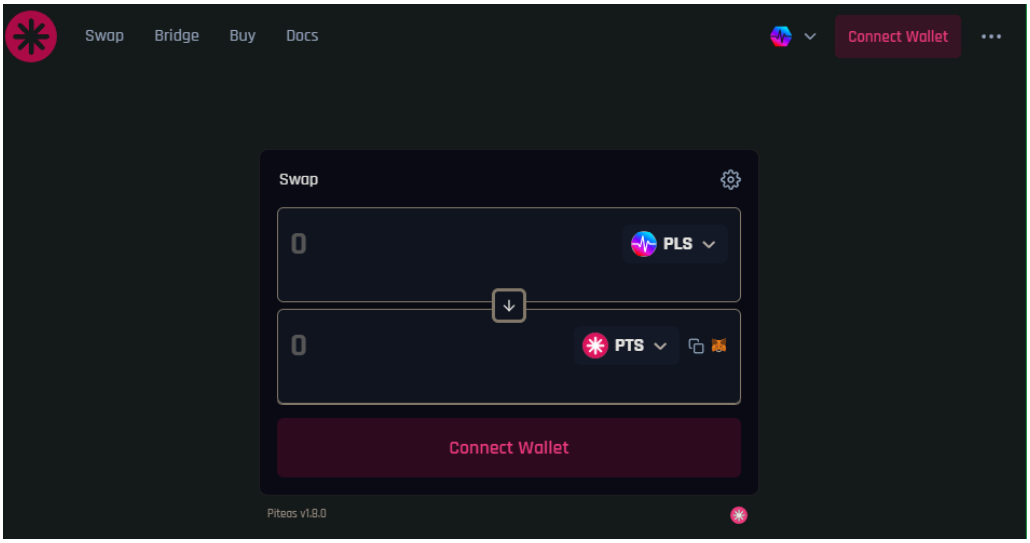


How to Buy HEX

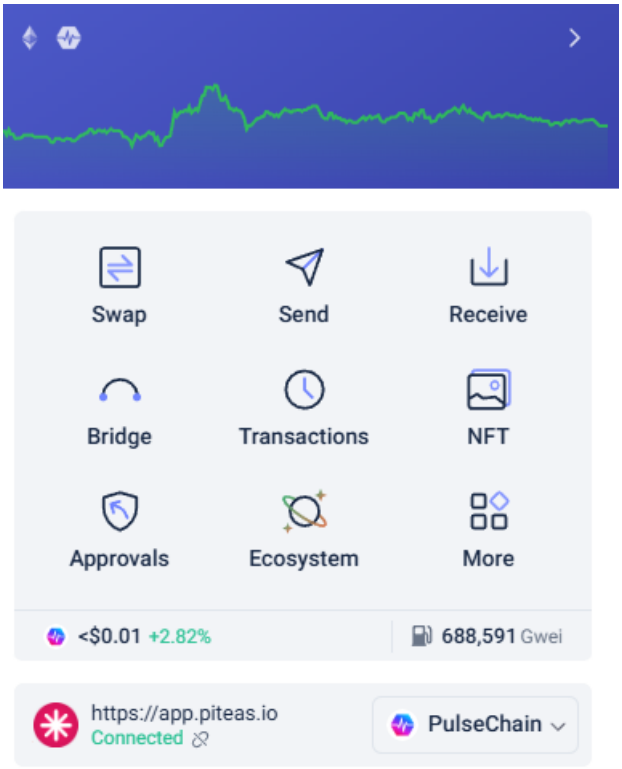
Tokens on PulseChain can be bought from several decentralized exchanges (DEXs). Still, since Piteas, a DEX aggregator, offers the best order execution, it will be shown here to give you the best rate on PulseChain.

It is helpful and recommended to first read through all the steps before taking action.

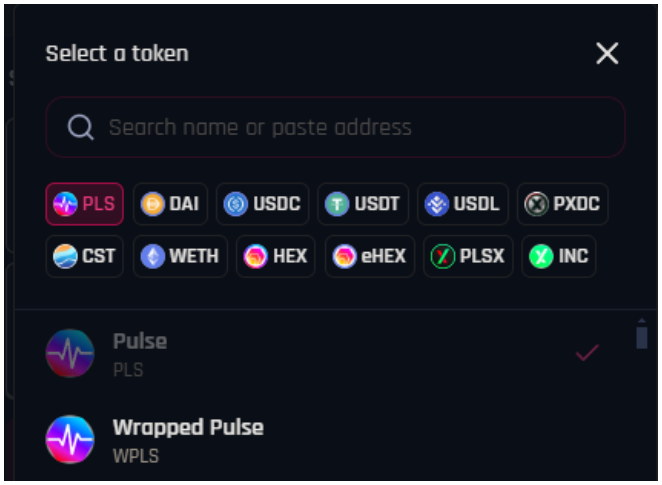
1. Visit https://app.piteas.io/ and Connect your Rabby wallet by selecting "Connect Wallet" in the top right of the screen:



2. Once connected, ensure you are on the PulseChain network by checking the Rabby wallet. If you are using the web browser extension, you will see the network and status at the bottom of the pop-up window:

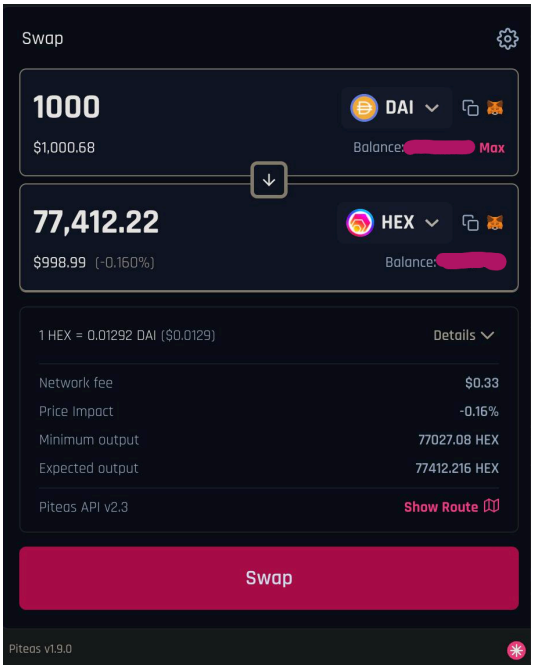


3. Assuming you have enough PLS in your wallet to pay the network gas fee, select the token you want to trade in the top drop-down menu, and for the bottom drop-down menu, select HEX:

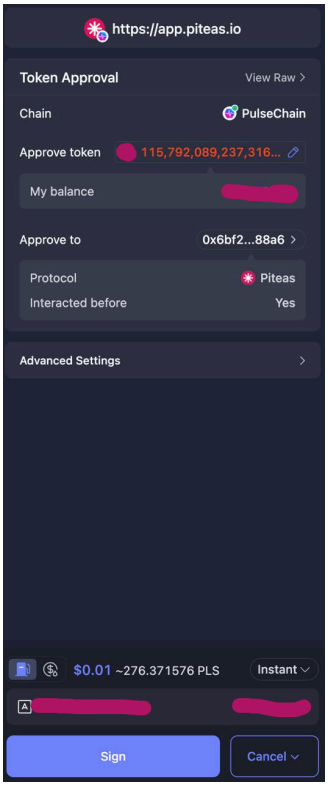


4. Enter the amount you want to swap at the top, and quickly, an expected value will populate below. It’s important to remember that slippage plays a role in any trading pair, so the final

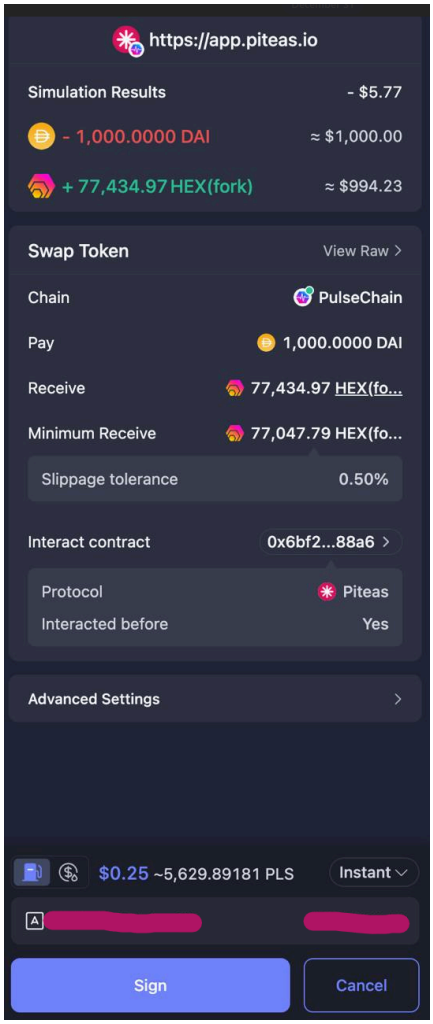
balance could be slightly different from what is shown.
Hit “Swap”:



5. When interacting with a smart contract for the first time or with a new token, you must sign a transaction giving the smart contract permission to interact with your wallet.
   Under “Approve Token,” you have the option to limit how many tokens the smart contract has permission to access. If you set a low limit, then each time you do a transaction, you will need to approve a new limit before being able to execute the trade:



6. Now, you can hit “Confirm Swap,” and a second Rabby pop-up window will ask you to sign and confirm the trade. The pop-up window displays the network gas fee near the bottom. You have the option to select between Normal, Fast, Instant, and Custom settings. In most cases, the Fast setting is timely and cost-effective:


https://app.piteas.io
Simulation Results
- $5.77
- 1,000.0000 DAI
≈ $1,000.00
+ 77,434.97 HEX(fork)
≈ $994.23
Swap Token
View Raw
Chain
PulseChain
Pay
1,000.0000 DAI
Receive
77,434.97 HEX(fo...
Minimum Receive
77,047.79 HEX(fo...
Slippage tolerance
0.50%
Interact contract
0x6bf2...88a6
Protocol
Piteas
Interacted before
Yes
Advanced Settings
$0.25 ~5,629.89181 PLS
Instant
Sign
Cancel

How to Mine HEX

[What is HEX ??? explained in 2 minutes]
[What is HEX? (Animated) Unveiling the Power of T-Shares]
[Cracking the T-Shares Code: A Beginner's Guide to HEX]

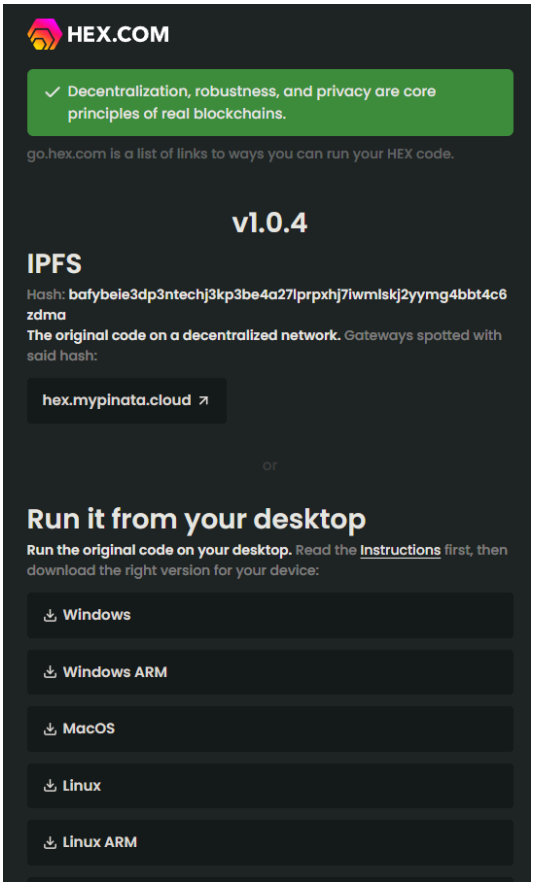
It's crucial to remember that crypto was designed to be decentralized, eliminating middlemen and reducing counterparty risk. However, an often overlooked point of failure is websites; hosting platforms can arbitrarily decide to delist or censor content.

A novel solution to this censorship is to download and run the code directly from your computer or use a censorship-resistant IPFS link.

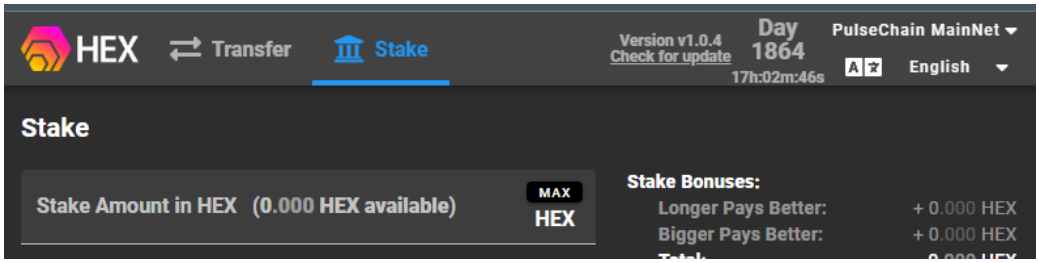
It is helpful and recommended to first read through all the steps before taking action.

1. Go to https://go.hex.com/

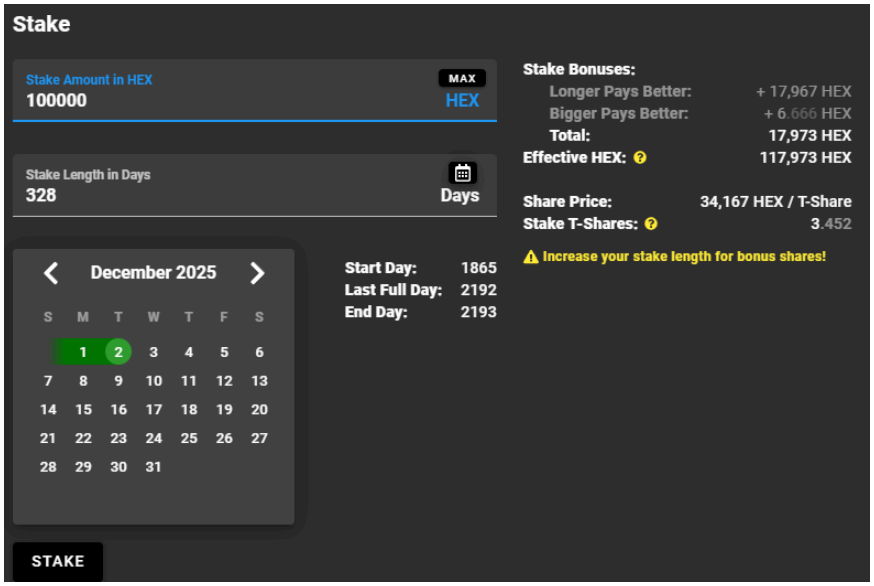
2. Here, you see options for opening an IPFS link or downloading the software to your desktop. Although downloading software is not difficult, we will cover the IPFS link for this tutorial. Click “hex.mypinata.cloud”:



3. Click “Stake” at the top banner and connect your digital wallet to the site. Once connected, make sure the top right corner shows you are connected to the PulseChain network.



4. You can now enter the Stake Amount in HEX and the Stake Length in Days. For convenience, you can click the calendar icon to select dates, and the exact days will be calculated for you.



5. Once you have decided on the amount of HEX and the number of days for the HEX Miner (Mining and Staking are two terms used interchangeably), click “Stake” and confirm the transaction in your wallet.

6. Once your transaction goes through, the HEX Miner will be shown as pending in the “Active Stakes” section at the bottom of the page. Once the clock in the top right corner reaches a new day, the HEX Miner will change from pending to active.

Safe Practices

- Revoke.cash is crucial in the realm of DeFi for enhancing wallet security by allowing users to manage and revoke token approvals. It's important because it empowers users to take back control over which smart contracts can access their funds, mitigating risks from malicious or compromised contracts. By using Revoke.cash, individuals can periodically review and revoke permissions for token spending, thus reducing the likelihood of unauthorized transactions or theft, especially in the wake of increasing allowance scams.

- Safely storing seed words and hardware wallets is paramount because they are the keys to your cryptocurrency. Seed phrases should be written down or stamped into metal and stored in a secure, physical location, like a safe or a fireproof lockbox, away from digital access. Hardware wallets, which store these seed phrases securely offline, should be kept in a similar secure environment. If either your seed words or hardware wallet falls into the wrong hands, you risk losing everything associated with those keys; the individual could access, transfer, or steal all your digital assets without any way for you to recover or stop the transaction since blockchain transactions are irreversible.

- Setting a strong, unique password for your Rabby Wallet is crucial for securing your assets. You can also lock your Rabby Wallet to add an extra layer of security. This ensures that even if someone gains access to your device, they would need the password to unlock your wallet and interact with your cryptocurrencies.

Video Links

The author of the DeFi Codex bears no responsibility for what the following videos suggest or what other videos the content creator might endorse. You must do your own research. These videos are linked as a convenience.

- HEX Explainers
- Cracking the T-Shares Code: A Beginner's Guide to HEX
- How to Lock WAIT on Coast for 1% Fees [Buy HEX, PLS, & PLSX with Fiat]
- How To Use The PulseChain Bridge (Move Coins From Ethereum To Pulse)
- PulseChain Bridge, HEX and PulseX NOOB Tutorial (even Grandma Can do it)
- How To Stake HEX (HEX Mining Easy Tutorial Guide)
- How to use PowerCity PortalX Swap
- MetaMask SCAM BEWARE
- How to use PulseX?
- Cold Wallet vs. Hot Wallet: Where Is Crypto Stored?

Definitions

- Cold Wallet (Cold Storage) - A wallet that minimizes security risk but is less accessible to the user.
- Hot Wallet - An active wallet that is more susceptible to security threats.
- Wallet/Address - These two concepts are technically different but often interchangeable.
- DeFi (Decentralized Finance) - Unlike centralized finance, where an individual must divulge personal and financial information to gain access to financial tools, the ability to transact in DeFi is permissionless. However, with this freedom comes responsibility, as lost funds are often unrecoverable.
- Know Your Customer (KYC) - A regulatory process used by businesses, primarily in the financial sector, to verify the identity of their clients. Crypto aims for user control without intermediaries; KYC adds regulatory oversight and centralizing control, so the ethos of crypto makes every attempt to eliminate KYC.
- Anti-Money Laundering (AML) - A set of laws and regulations aiming to prevent illicit financial activities, but they clash with the cryptocurrency ethos. They require identity disclosure and centralized control, which contradict the values of privacy, decentralization, and resistance to censorship that are central to crypto.
- Seed Words (a.k.a. Seed Phrase) - These are the 12- or 24-word unique and sequential combinations that give the holder access to a particular set of addresses.
- Stablecoins - There are USD-backed stablecoins like USDC and USDT, as well as crypto-collateralized stablecoins. The goal of a stablecoin is to stay approximately $1 in value represented on the blockchain.

- Memecoins - A memecoin is a type of cryptocurrency derived from internet memes or popular culture. It often lacks intrinsic value or any serious utility. They are usually created for fun, as a form of social commentary, or to capitalize on viral trends. Examples include Dogecoin and Shiba Inu. Memecoins often carry more risk than other tokens. Therefore, they should be viewed with caution.
- Network - In crypto, multiple networks exist because different blockchains are designed for various purposes. They offer unique features like faster transactions, lower fees, smart contract capabilities, enhanced privacy, or specific consensus mechanisms. This diversity allows for innovation, specialization, and interoperability within the ecosystem. Examples include Ethereum, PulseChain, and Bitcoin.
- Layer 2 - In blockchain, Layer 2 (L2) refers to secondary frameworks or protocols built on top of an existing blockchain (Layer 1) to improve scalability and speed and reduce transaction costs. These protocols handle transactions off the main chain while still using the security of the primary blockchain. Examples include Ethereum's Optimism, Polygon, and Arbitrum.
- Bridge - A protocol or service that enables the transfer of assets (like tokens or data) between different blockchain networks, allowing interoperability and liquidity across blockchains. However, using bridges in crypto comes with risks, such as smart contract bugs, centralization issues, liquidity problems, and security threats from hacking.
- Gas - Just like how gas is needed to drive a car, transactions in crypto are paid for with gas. Obviously, it is not literally gasoline, but rather, a fraction of the native token (such as ETH or PLS) is used to pay the transaction fees. The cost of gas will vary depending on the chain that is being used and the load on the network. The busier the network or the more expensive the native token, the more you must pay to transact.

- DEX (Decentralized Exchange) - There are varying degrees of decentralized exchanges. Some have more admin keys than others, but the general premise is that an individual may interact with a smart contract to exchange tokens without requiring permission or personal verification.
- CEX (Centralized Exchange) - The ethos of crypto is to have a general distrust of centralized exchanges for various reasons. However, they are necessary (for the time being) for individuals to bring money into crypto or take money out into fiat.
- Token - Technically, a token is different from a coin, but for simplicity's sake, they are the same.
- Slippage - In trading, slippage refers to the difference between the expected price of a trade and the price at which the trade is actually executed. This can occur due to market volatility or low liquidity, where the order size exceeds the available volume at the desired price point, causing the price to move before the trade completes.
- Admin keys - Developers may need to change variables within a smart contract, and admin keys allow for that. In an ideal world, there would be no admin keys, and everything would work perfectly according to the rules of the contract. However, not all admin keys are the same. Some keys allow the holder to maliciously drain funds from the contract, while others tweak variables for better protocol performance.
- Immutable - In crypto, "immutable" means code that cannot be changed after it has launched. To upgrade or change immutable code, it must be relaunched as an entirely new contract while the old contract remains active (as there is no way to shut it off).
- Fiat Currency - Fiat money has no intrinsic value, meaning it isn't backed by physical commodities like gold. By this definition, cryptocurrencies are technically fiat, but the term "fiat" is generally used to differentiate traditional

government-issued currencies like USD or EUR from digital currencies like Bitcoin.

- Hodl - An acronym meaning “Hold On (for) Dear Life.”
- Rug (or Rugpull) - When a cryptocurrency creator steals money.
- Scam - Using deceptive tactics to mislead with promises of high returns or unique opportunities, ultimately aiming to steal money or personal information from unsuspecting participants.
- FOMO - An acronym meaning “Fear Of Missing Out.”
- Rekt - When something is destroyed, typically in reference to one’s portfolio.