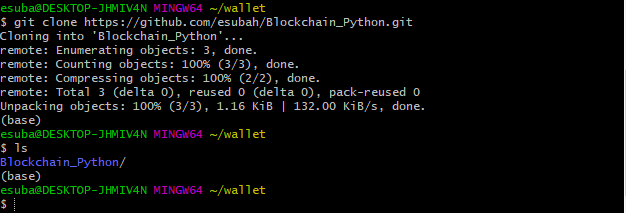
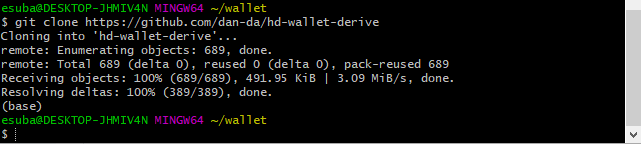
Project Directory – wallet



Hd-wallet-derive installation

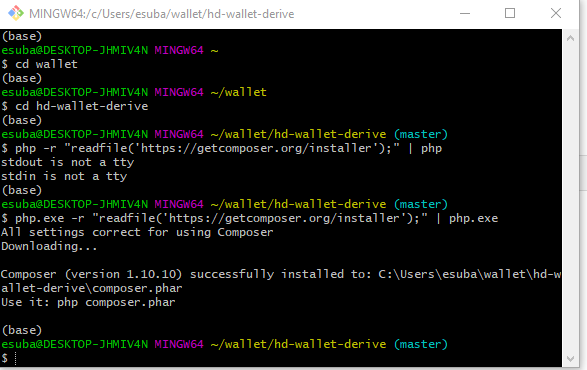
Cloning: git clone https://github.com/dan-da/hd-wallet-derive

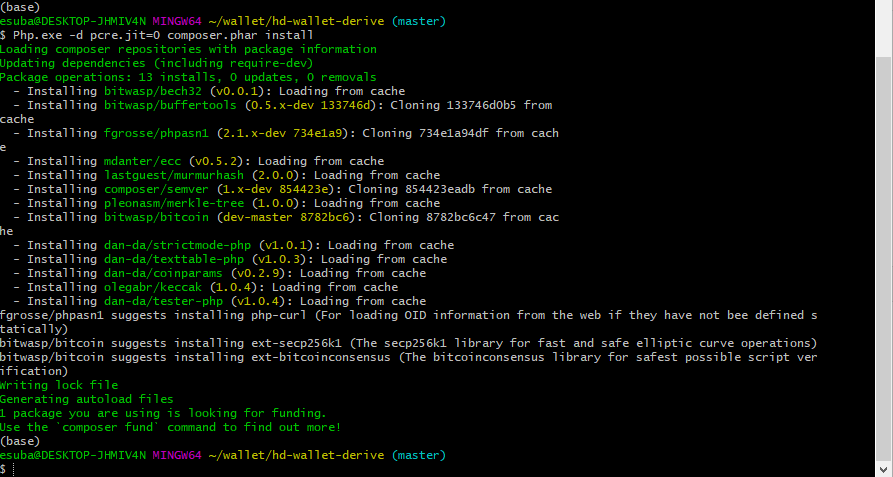


Php composer installation:

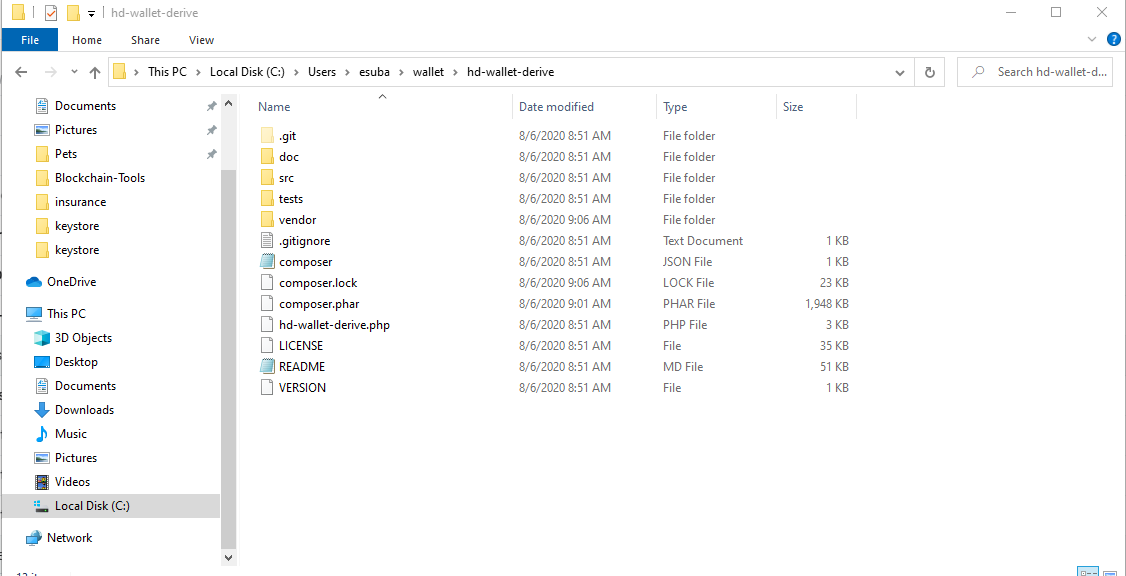
php.exe -r "readfile('[https://getcomposer.org/installer](https://slack-redir.net/link?url=https%3A%2F%2Fgetcomposer.org%2Finstaller)');" | php.exe

Php.exe -d pcre.jit**=**0 composer.phar install



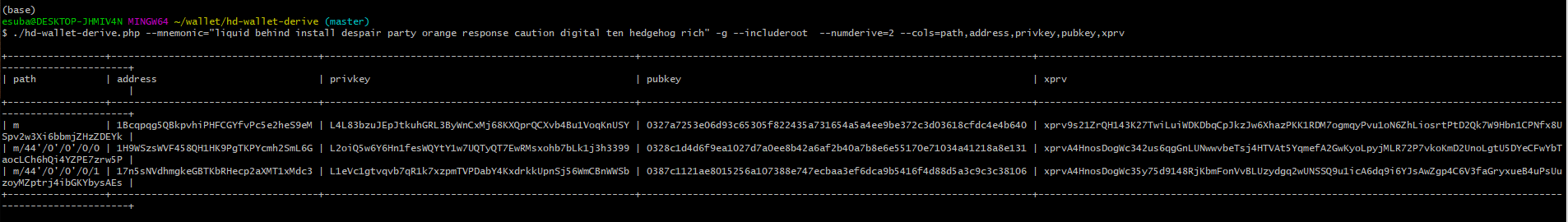


hd-wallet-derive folder containing the PHP library



Execute the hd-wallet-derive library to derive BIP32 addresses and private keys for Bitcoin and other alternative coins

$ ./hd-wallet-derive.php --mnemonic="liquid behind install despair party orange response caution digital ten hedgehog rich" -g --includeroot --numderive=2 --cols=path,address,privkey,pubkey,xprv



+-----------------+------------------------------------+------------------------------------------------------+--------------------------------------------------------------------+-----------------------------------------------------------------------------------------------------------------+

| path | address | privkey | pubkey | xprv |

+-----------------+------------------------------------+------------------------------------------------------+--------------------------------------------------------------------+-----------------------------------------------------------------------------------------------------------------+

| m | 1Bcqpqg5QBkpvhiPHFCGYfvPc5e2heS9eM | L4L83bzuJEpJtkuhGRL3ByWnCxMj68KXQprQCXvb4Bu1VoqKnUSY | 0327a7253e06d93c65305f822435a731654a5a4ee9be372c3d03618cfdc4e4b640 | xprv9s21ZrQH143K27TwiLuiWDKDbqCpJkzJw6XhazPKK1RDM7ogmqyPvu1oN6ZhLiosrtPtD2Qk7W9Hbn1CPNfx8USpv2w3Xi6bbmjZHzZDEYk |

| m/44'/0'/0'/0/0 | 1H9WSzsWVF458QH1HK9PgTKPYcmh2SmL6G | L2oiQ5w6Y6Hn1fesWQYtY1w7UQTyQT7EwRMsxohb7bLk1j3h3399 | 0328c1d4d6f9ea1027d7a0ee8b42a6af2b40a7b8e6e55170e71034a41218a8e131 | xprvA4HnosDogWc342us6qgGnLUNwwvbeTsj4HTVAt5YqmefA2GwKyoLpyjMLR72P7vkoKmD2UnoLgtU5DYeCFwYbTaocLCh6hQi4YZPE7zrw5P |

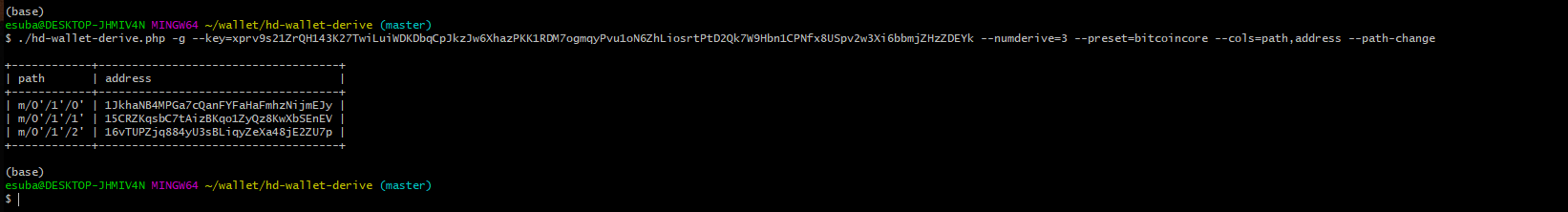
| m/44'/0'/0'/0/1 | 17n5sNVdhmgkeGBTKbRHecp2aXMT1xMdc3 | L1eVc1gtvqvb7qR1k7xzpmTVPDabY4KxdrkkUpnSj56WmCBnWWSb | 0387c1121ae8015256a107388e747ecbaa3ef6dca9b5416f4d88d5a3c9c3c38106 | xprvA4HnosDogWc35y75d9148RjKbmFonVvBLUzydgq2wUNSSQ9u1icA6dq9i6YJsAwZgp4C6V3faGryxueB4uPsUuzoyMZptrj4ibGKYbysAEs |

+-----------------+------------------------------------+------------------------------------------------------+--------------------------------------------------------------------+-----------------------------------------------------------------------------------------------------------------+

./hd-wallet-derive.php -g --key**=**xprv9s21ZrQH143K27TwiLuiWDKDbqCpJkzJw6XhazPKK1RDM7ogmqyPvu1oN6ZhLiosrtPtD2Qk7W9Hbn1CPNfx8USpv2w3Xi6bbmjZHzZDEYk

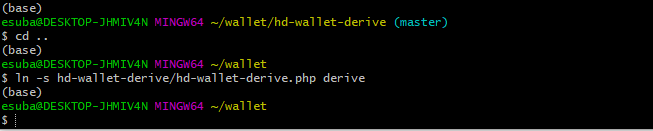


./hd-wallet-derive.php -g --key**=**xprv9s21ZrQH143K27TwiLuiWDKDbqCpJkzJw6XhazPKK1RDM7ogmqyPvu1oN6ZhLiosrtPtD2Qk7W9Hbn1CPNfx8USpv2w3Xi6bbmjZHzZDEYk --numderive**=**3 --preset**=**bitcoincore --cols**=**path,address --path-change



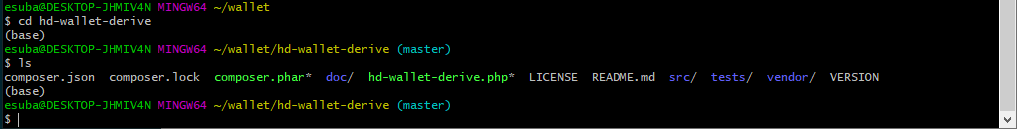
Create a symlink called derive for the hd-wallet-derive/hd-wallet-derive.php script into the top level project directory:

ln -s hd-wallet-derive/hd-wallet-derive.php derive



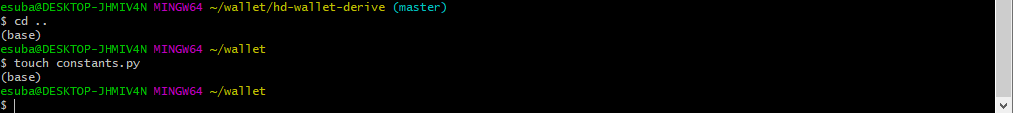
File structure



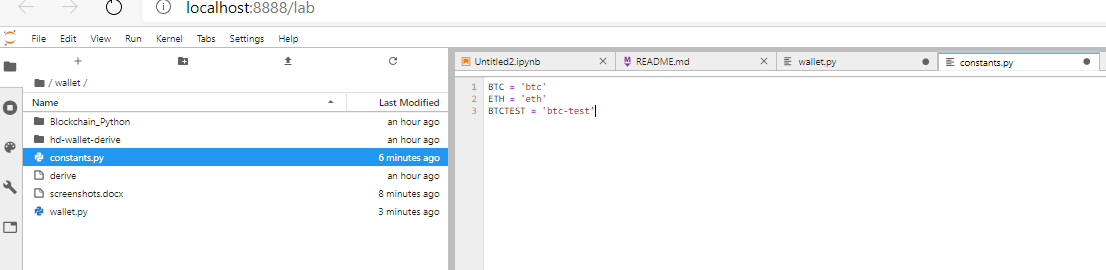


Constants:

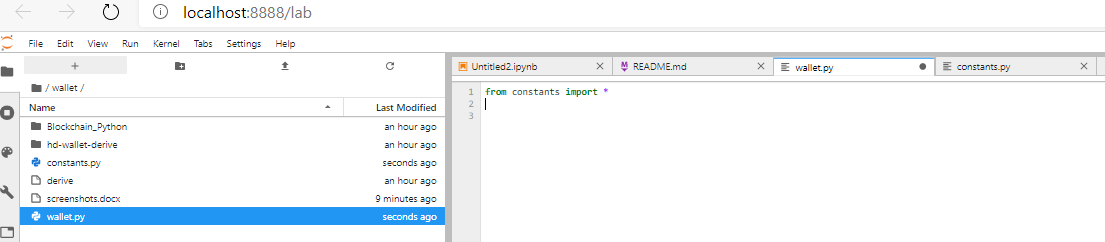
$ touch constants.py



* BTC = 'btc'
* ETH = 'eth'
* BTCTEST = 'btc-test'



In wallet.py, import all constants: from constants import \*

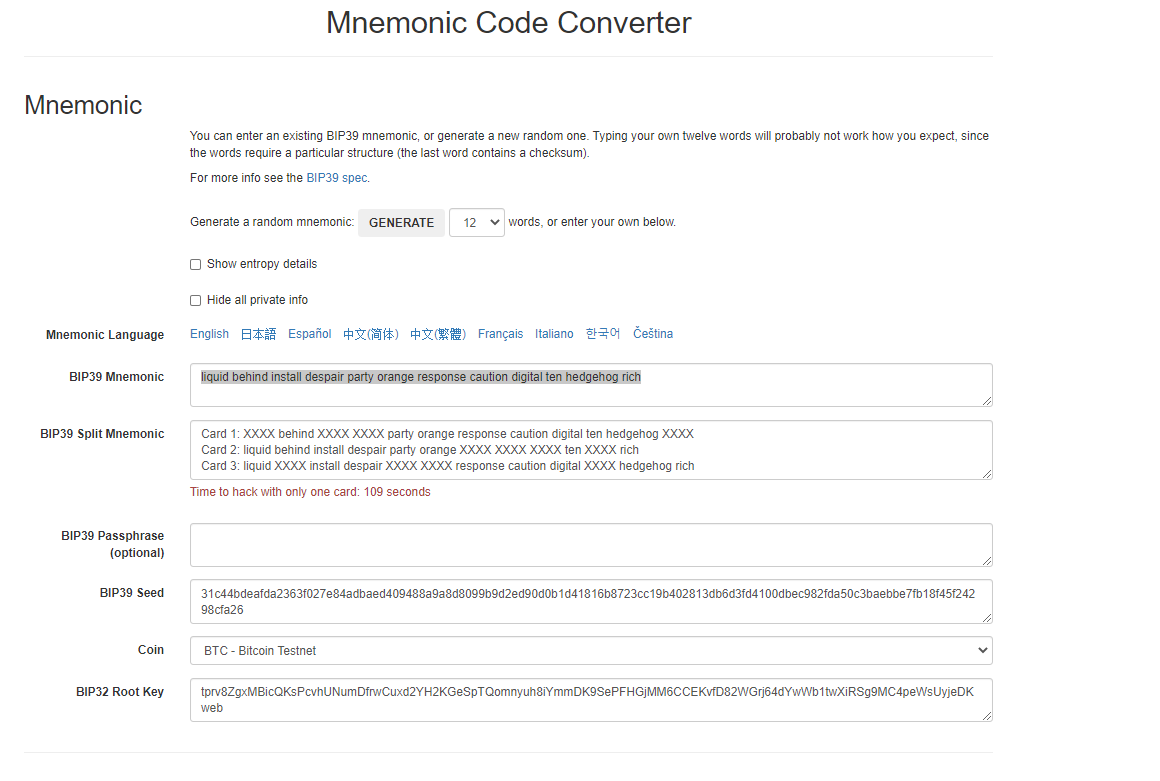


Important github directions for mnemonic generation: <https://github.com/dan-da/hd-wallet-derive>

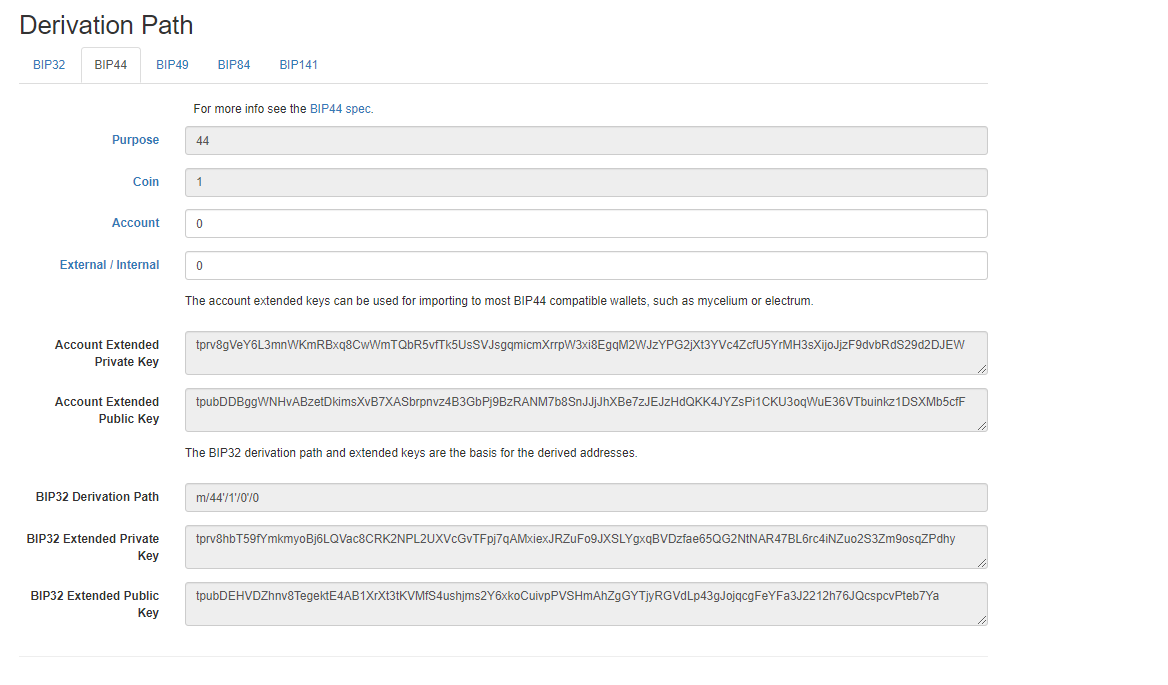
Generate Mnemonic using BIP39 Tool: <https://iancoleman.io/bip39/> (BIP44 Default, BTC Testnet)

# ./hd-wallet-derive.php --mnemonic="liquid behind install despair party orange response caution digital ten hedgehog rich" -g --includeroot --numderive=2 --cols=path,address,privkey,pubkey,xprv

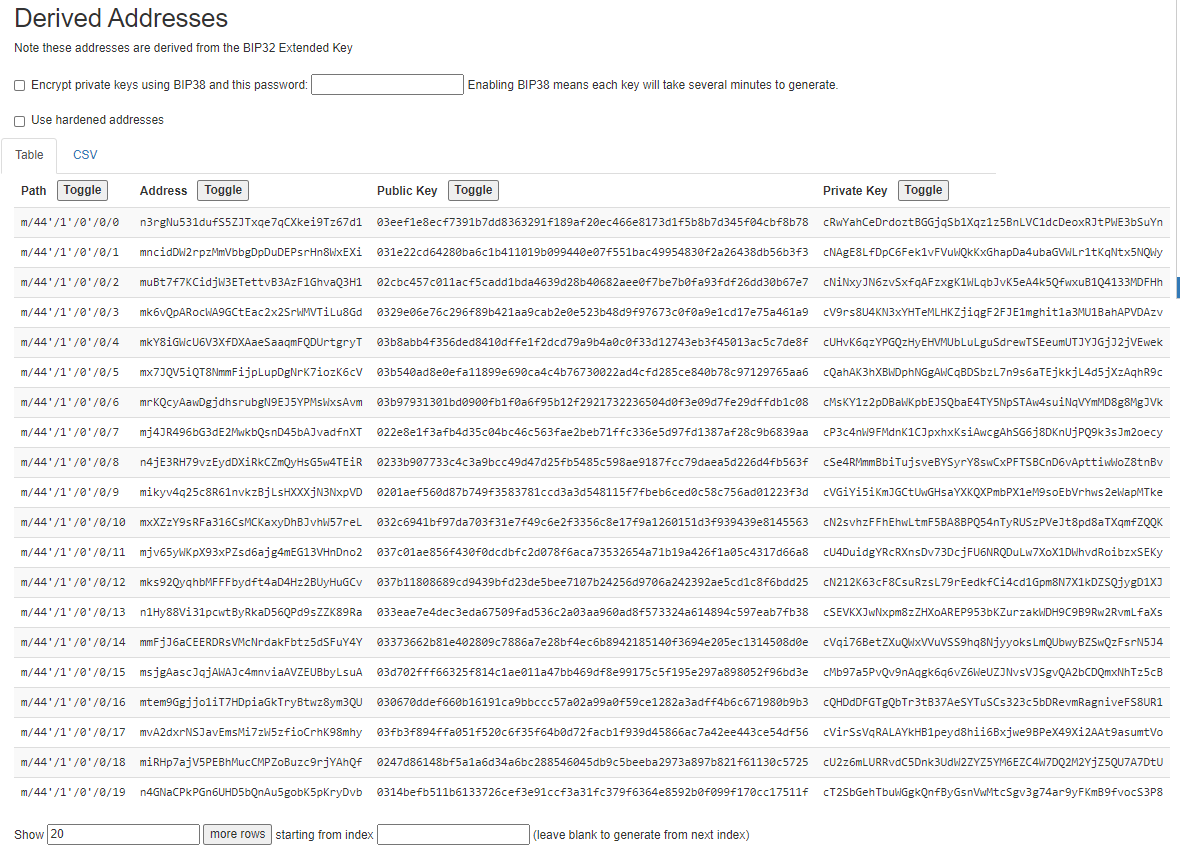
Mnemonic: liquid behind install despair party orange response caution digital ten hedgehog rich



Derived Path:



Derived Addresses:



path,address,public key,private key

m/44'/1'/0'/0/0,n3rgNu531dufS5ZJTxqe7qCXkei9Tz67d1,03eef1e8ecf7391b7dd8363291f189af20ec466e8173d1f5b8b7d345f04cbf8b78,cRwYahCeDrdoztBGGjqSb1Xqz1z5BnLVC1dcDeoxRJtPWE3bSuYn

m/44'/1'/0'/0/1,mncidDW2rpzMmVbbgDpDuDEPsrHn8WxEXi,031e22cd64280ba6c1b411019b099440e07f551bac49954830f2a26438db56b3f3,cNAgE8LfDpC6Fek1vFVuWQkKxGhapDa4ubaGVWLr1tKqNtx5NQWy

m/44'/1'/0'/0/2,muBt7f7KCidjW3ETettvB3AzF1GhvaQ3H1,02cbc457c011acf5cadd1bda4639d28b40682aee0f7be7b0fa93fdf26dd30b67e7,cNiNxyJN6zvSxfqAFzxgK1WLqbJvK5eA4k5QfwxuB1Q4133MDFHh

m/44'/1'/0'/0/3,mk6vQpARocWA9GCtEac2x2SrWMVTiLu8Gd,0329e06e76c296f89b421aa9cab2e0e523b48d9f97673c0f0a9e1cd17e75a461a9,cV9rs8U4KN3xYHTeMLHKZjiqgF2FJE1mghit1a3MU1BahAPVDAzv

m/44'/1'/0'/0/4,mkY8iGWcU6V3XfDXAaeSaaqmFQDUrtgryT,03b8abb4f356ded8410dffe1f2dcd79a9b4a0c0f33d12743eb3f45013ac5c7de8f,cUHvK6qzYPGQzHyEHVMUbLuLguSdrewTSEeumUTJYJGjJ2jVEwek

m/44'/1'/0'/0/5,mx7JQV5iQT8NmmFijpLupDgNrK7iozK6cV,03b540ad8e0efa11899e690ca4c4b76730022ad4cfd285ce840b78c97129765aa6,cQahAK3hXBWDphNGgAWCqBDSbzL7n9s6aTEjkkjL4d5jXzAqhR9c

m/44'/1'/0'/0/6,mrKQcyAawDgjdhsrubgN9EJ5YPMsWxsAvm,03b97931301bd0900fb1f0a6f95b12f2921732236504d0f3e09d7fe29dffdb1c08,cMsKY1z2pDBaWKpbEJSQbaE4TY5NpSTAw4suiNqVYmMD8g8MgJVk

m/44'/1'/0'/0/7,mj4JR496bG3dE2MwkbQsnD45bAJvadfnXT,022e8e1f3afb4d35c04bc46c563fae2beb71ffc336e5d97fd1387af28c9b6839aa,cP3c4nW9FMdnK1CJpxhxKsiAwcgAhSG6j8DKnUjPQ9k3sJm2oecy

m/44'/1'/0'/0/8,n4jE3RH79vzEydDXiRkCZmQyHsG5w4TEiR,0233b907733c4c3a9bcc49d47d25fb5485c598ae9187fcc79daea5d226d4fb563f,cSe4RMmmBbiTujsveBYSyrY8swCxPFTSBCnD6vApttiwWoZ8tnBv

m/44'/1'/0'/0/9,mikyv4q25c8R61nvkzBjLsHXXXjN3NxpVD,0201aef560d87b749f3583781ccd3a3d548115f7fbeb6ced0c58c756ad01223f3d,cVGiYi5iKmJGCtUwGHsaYXKQXPmbPX1eM9soEbVrhws2eWapMTke

m/44'/1'/0'/0/10,mxXZzY9sRFa316CsMCKaxyDhBJvhW57reL,032c6941bf97da703f31e7f49c6e2f3356c8e17f9a1260151d3f939439e8145563,cN2svhzFFhEhwLtmF5BA8BPQ54nTyRUSzPVeJt8pd8aTXqmfZQQK

m/44'/1'/0'/0/11,mjv65yWKpX93xPZsd6ajg4mEG13VHnDno2,037c01ae856f430f0dcdbfc2d078f6aca73532654a71b19a426f1a05c4317d66a8,cU4DuidgYRcRXnsDv73DcjFU6NRQDuLw7XoX1DWhvdRoibzxSEKy

m/44'/1'/0'/0/12,mks92QyqhbMFFFbydft4aD4Hz2BUyHuGCv,037b11808689cd9439bfd23de5bee7107b24256d9706a242392ae5cd1c8f6bdd25,cN212K63cF8CsuRzsL79rEedkfCi4cd1Gpm8N7X1kDZSQjygD1XJ

m/44'/1'/0'/0/13,n1Hy88Vi31pcwtByRkaD56QPd9sZZK89Ra,033eae7e4dec3eda67509fad536c2a03aa960ad8f573324a614894c597eab7fb38,cSEVKXJwNxpm8zZHXoAREP953bKZurzakWDH9C9B9Rw2RvmLfaXs

m/44'/1'/0'/0/14,mmFjJ6aCEERDRsVMcNrdakFbtz5dSFuY4Y,03373662b81e402809c7886a7e28bf4ec6b8942185140f3694e205ec1314508d0e,cVqi76BetZXuQWxVVuVSS9hq8NjyyoksLmQUbwyBZSwQzFsrN5J4

m/44'/1'/0'/0/15,msjgAascJqjAWAJc4mnviaAVZEUBbyLsuA,03d702fff66325f814c1ae011a47bb469df8e99175c5f195e297a898052f96bd3e,cMb97a5PvQv9nAqgk6q6vZ6WeUZJNvsVJSgvQA2bCDQmxNhTz5cB

m/44'/1'/0'/0/16,mtem9Ggjjo1iT7HDpiaGkTryBtwz8ym3QU,030670ddef660b16191ca9bbccc57a02a99a0f59ce1282a3adff4b6c671980b9b3,cQHDdDFGTgQbTr3tB37AeSYTuSCs323c5bDRevmRagniveFS8UR1

m/44'/1'/0'/0/17,mvA2dxrNSJavEmsMi7zW5zfioCrhK98mhy,03fb3f894ffa051f520c6f35f64b0d72facb1f939d45866ac7a42ee443ce54df56,cVirSsVqRALAYkHB1peyd8hii6Bxjwe9BPeX49Xi2AAt9asumtVo

m/44'/1'/0'/0/18,miRHp7ajV5PEBhMucCMPZoBuzc9rjYAhQf,0247d86148bf5a1a6d34a6bc288546045db9c5beeba2973a897b821f61130c5725,cU2z6mLURRvdC5Dnk3UdW2ZYZ5YM6EZC4W7DQ2M2YjZ5QU7A7DtU

m/44'/1'/0'/0/19,n4GNaCPkPGn6UHD5bQnAu5gobK5pKryDvb,0314befb511b6133726cef3e91ccf3a31fc379f6364e8592b0f099f170cc17511f,cT2SbGehTbuWGgkQnfByGsnVwMtcSgv3g74ar9yFKmB9fvocS3P8

Set MNEMONIC as environment variable

\*\*\*add MNEMONIC to .batch\_profile first\*\*\*

$ export MNEMONIC=“liquid behind install despair party orange response caution digital ten hedgehog rich”

