SCET Blockchain Lab

Hands on: Cryptocurrency

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<u>OUTLINE</u>

1. **How to <u>get</u> Crypto**

   Platforms, Exchanges, ATM

2. **How to <u>store</u> Crypto**

   Hardware, Desktop, Paper, Mobile, Web

3. **How to <u>send</u> Cryptocurrency**

   Using MetaMask and Cipher

4. **Play with Smart Contracts(!)**

How to get Cryptocurrency?

Get Crypto: Buy from Exchanges

Centralized Digital Currency Exchanges (accepting Fiat / Debit cards)
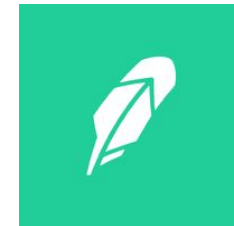
◇ **Coinbase** coinbase.com (very easy)**:**

- Bitcoin, Ethereum, Litecoin, Bitcoin Cash, Ethereum Classic, 0x

- Create an account and verify identity

◇ **Robinhood** robinhood.com (simple & zero fees):

- Similar features as Coinbase

- Zero fees (instead of Coinbase 1.5 - 3 % / tx)

- Makes money from interest (customer's cash) and margin lending

Get Crypto: Pseudonymous buying
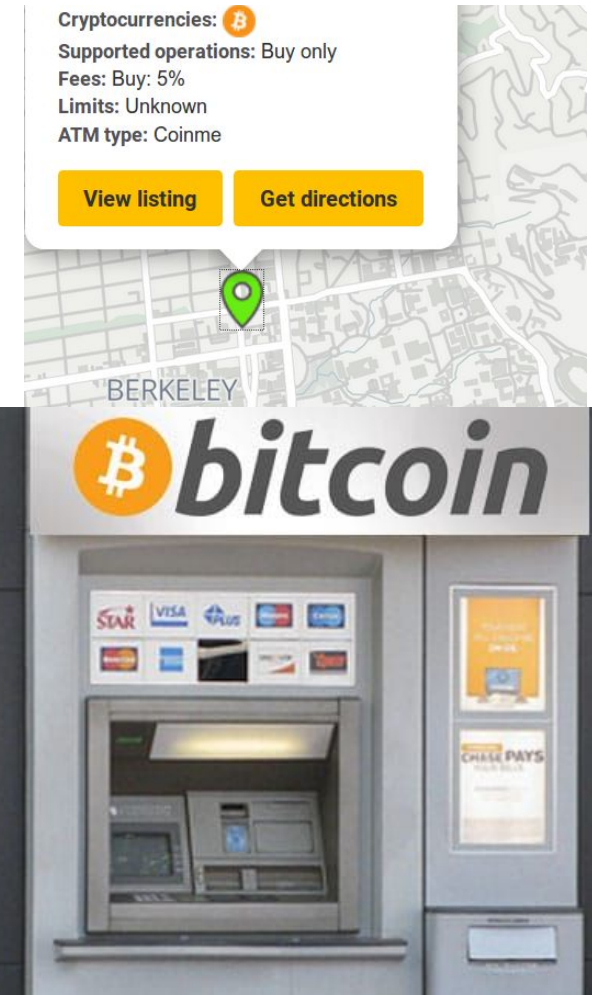
◇ **Crypto ATMs**

- Deposit cash (anonymous) or use your credit card to buy (not anonymous)
- Maps of ATMs: coinatmradar.com

◇ **Buy in person**

- Find people selling bitcoin at localbitcoins.com

◇ **Mine Cryptocurrency**

- Join a mining pool and receive block reward

Cryptocurrencies: B
Supported operations: Buy only
Fees: Buy: 5%
Limits: Unknown
ATM type: Coinme

View listing   Get directions

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Get Crypto: Trade on Exchanges

Altcoins

Most cryptocurrencies cannot be bought with fiat, users need to send BTC, ETH, LTC.. to an exchange and trade cryptos.

The world's largest Cryptocurrency exchanges are:

◇ **1. Binance (Volume $715Mn / 24hrs)**

  ▪ Founded in China. Now: Japan, Taiwan & Malta.

◇ **2. OKEx (Volume $400Mn / 24hrs)**

  ▪ Offers Future trading pairs

*Rain in the Middle East by 2019?*

Comparison:

Coinbase

vs

Binance

Exchange	coinbase	BINANCE
Reviews	Coinbase Review	Binance Review
Site Type	Easy Buy/Sell Methods	Cryptocurrency Exchange
Beginner Friendly	✓	✗
Mobile App	✓	✓
Buy/Deposit Methods	Debit Card, Bank Transfer, Cryptocurrency	Cryptocurrency
Sell/Withdrawal Methods	Bank Transfer, Cryptocurrency	Cryptocurrency
Available Cryptocurrencies	Bitcoin, Ethereum, Litecoin, Bitcoin Cash	Bitcoin, Ethereum, Litecoin, Bitcoin Cash + >100 more coins
Company Launch	2012	2017
Location	San Francisco, CA, USA	Malta
Community Trust	Great	Great
Security	Great	Great
Customer Support	Good	Good
Verification Required	Yes	No
Fees	Medium	Very Low

Get Crypto: ICO

Buy into Initial Coin Offerings

If you want to participate in an ICO and buy tokens not yet listed on exchanges, follow the 3 steps below:

◇ **1. Buy Ether (most common)**

  ▪ Many ICOs also accept BTC, LTC etc.

◇ **2. Send Ether to the ICO Smart Contract**

  ▪ On the project website find the public ICO address.

◇ **3. Add a custom token to your <u>Crypto wallet</u>**

  ▪ And your balance will show up in the wallet
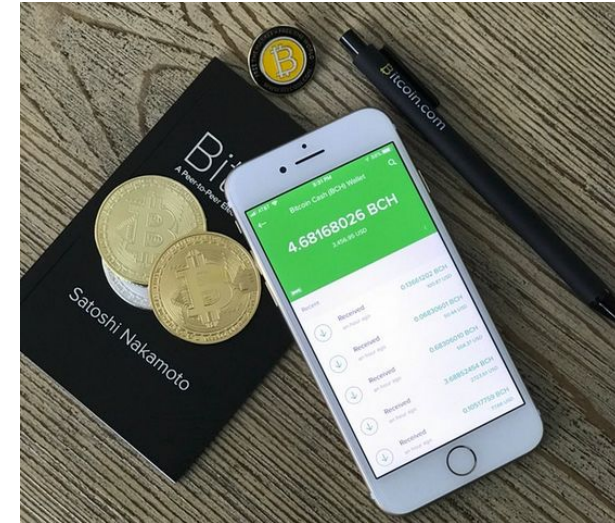
How to store Cryptocurrency?

Cryptocurrency Wallets:
Hardware wallet

USB Hardware devices (not connected to the internet). Can store crypto & sign transactions.

- **Common brands:** Ledger, Trezor

- **Pros:** Very secure, cold storage (not connected to the internet). Easy to use.

- **Cons:** Typically cost $50-$150, limited storage (up to ~22 altcoins).

Img Source: bitcoinshirt.co

Cryptocurrency Wallets:
Paper Wallet

Wallet keys generated on a computer not connected to the internet. Printed on paper.

- **Pros:** Most secure option (if you know what you are doing).

- **Cons:** Difficult to manage and you cannot transfer crypto easily.

Img Source: bitcoin.it

Cryptocurrency Wallets:
Desktop Wallets

Software that can be installed on Mac, Windows, Linux.

- **Common software:** Exodus, Electrum

- **Pros:** Easy to transact, somewhat secure.

- **Cons:** You need to trust the developers and keep your computer's security systems up-to-date.
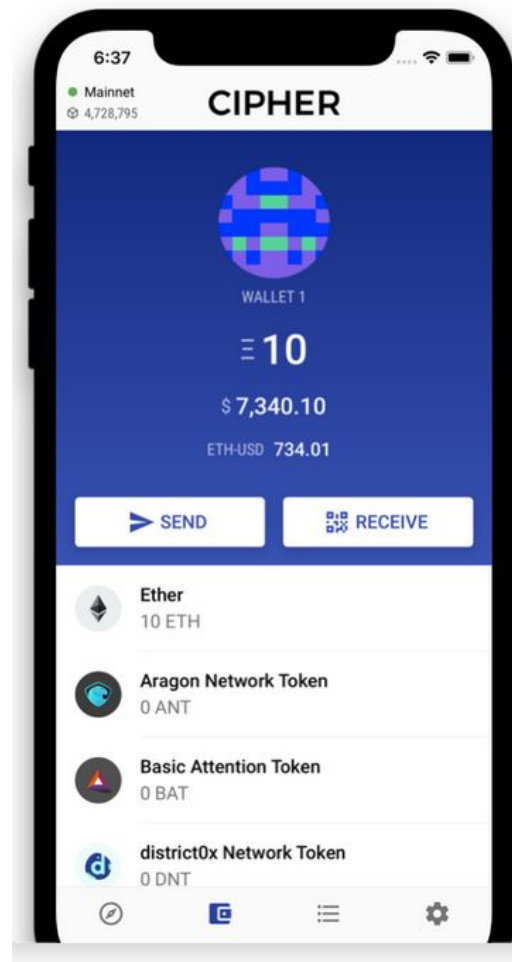
Cryptocurrency Wallets:
Mobile Wallets

Mobile apps for iOS, Android that allow you to store crypto and sign transactions.

- **Common mobile wallets:** Bread, Mycelium, Cipher, Trust

- **Pros:** Slick and beautiful UIs, ease of use (QR codes)

- **Cons:** You need to make sure your keys are secure.

Cryptocurrency Wallets:
Web Wallets

Hot wallets, always connected to the internet.

- **Common non-hosted wallets:** MyEtherWallet, MetaMask

- **Common hosted wallets:** Exchanges like Coinbase

- **Pros:** Ease of use and interact with smart contracts.
- **Cons:** Your keys and information are always online. For hosted wallets you don't control your keys yourself (not good!)
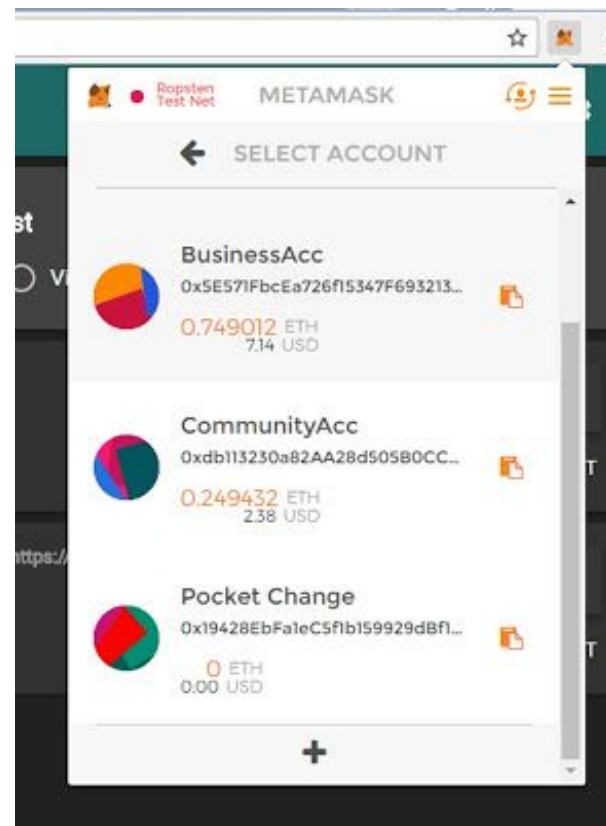
How to <u>send</u> Cryptocurrency?

Tools: **MetaMask & Cipher**

A mobile Ethereum wallet and Web 3 Dapp browser (that actually works).

Browser extension that can interact with Ethereum Blockchain. Contains wallet and keys to sign transactions.

Demo time!

◇ **Quick setup:** MetaMask & Cipher browser

◇ **Send & Receive Crypto** (test Ether)

◇ **Use a Smart Contract dApp:**

   ■ **bit.ly/afo-smart-contract**

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