

# Setup instructions for Hands on Crypto

These are simple setup instructions so that you can use Cryptocurrencies (Ethereum on a Testnet), interact with Smart Contracts, and use Decentralized Applications (dApps) in your web browser and on your phone.

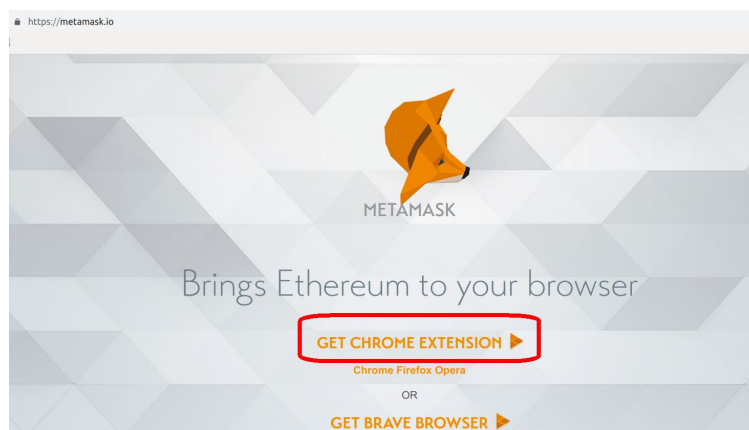
This pre-setup takes 10-20 mins to complete.

**One sentence summary of steps:** Use Firefox or Chrome, Install [MetaMask](#) (browser plugin), setup a MetaMask account and switch to the Ropsten Testnet, request tokens from a [Ropsten Faucet](#), install the [Cipher Browser](#) on your phone and import/recover the account you created with MetaMask.

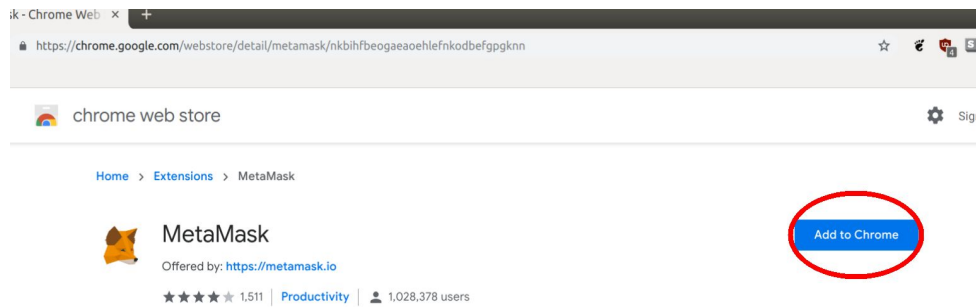
## 1. Download and use [Chrome](#) or [Firefox](#)

## 2. Install the browser plugin MetaMask:

- Go to <https://metamask.io/> and press the “**Get Chrome / Firefox Extension**” link.



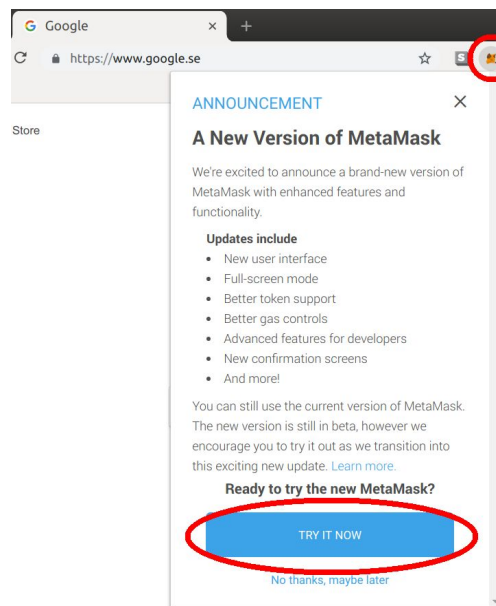
- Then press **“Add to Chrome”** or **“Add to Firefox”**



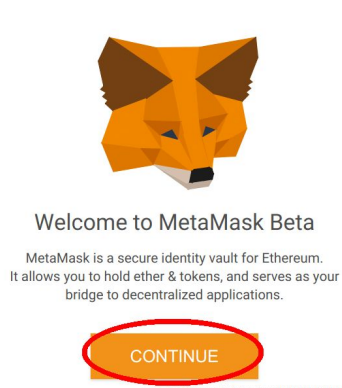
- Install the plugin by pressing **“Add Extension”**

### 3. Setup MetaMask

- Press the **orange fox** in the right corner (the newly installed MetaMask browser plugin)
- MetaMask will ask you if you want to use the new version. Press **Try It Now**



- A window will appear that says Welcome to MetaMask. Press **Continue**.



- MetaMask will ask you for a Password. This password unlocks the application and shows your private key. Choose a secure password and press **Create**:

### Create Password

New Password (min 8 chars)

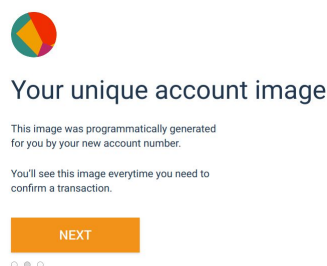
Confirm Password

**CREATE**

Import with seed phrase

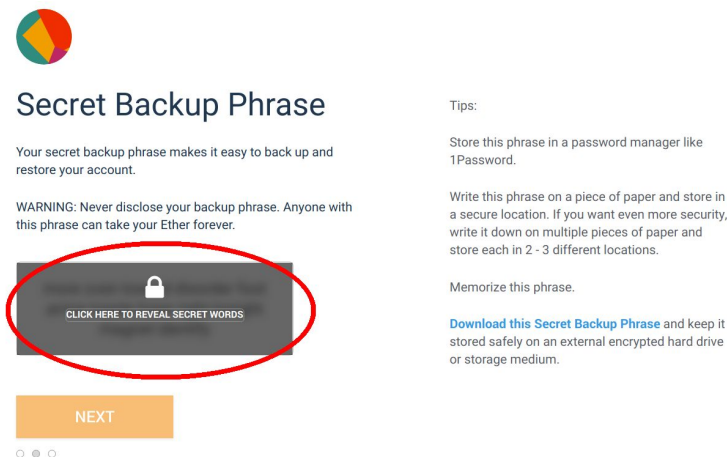
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- A unique account image will be generated. Press Next.

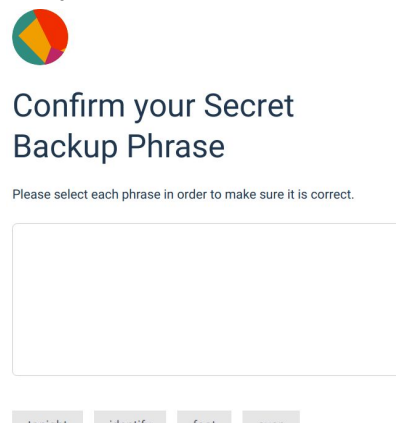


- Accept the three User Agreements: Terms of Use, Privacy Notice and Phishing Warning (note that you need to scroll down to the bottom in order to accept).

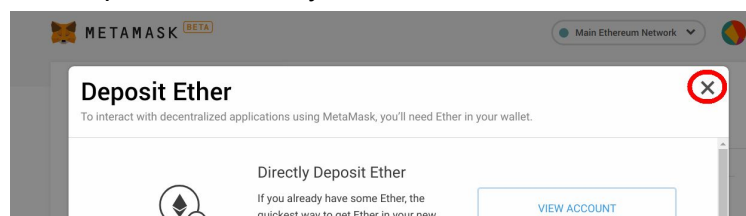
- The next step is **super important**. Here you will generate your seed phrase that can be used to recover your Private Key and import your account on different devices. Press **Click here to reveal secret words**. *Write down all the words in the correct order* (on your phone, computer or on paper) and store them somewhere safe. You will need the seed phrase in the next step and if you ever lose your account.



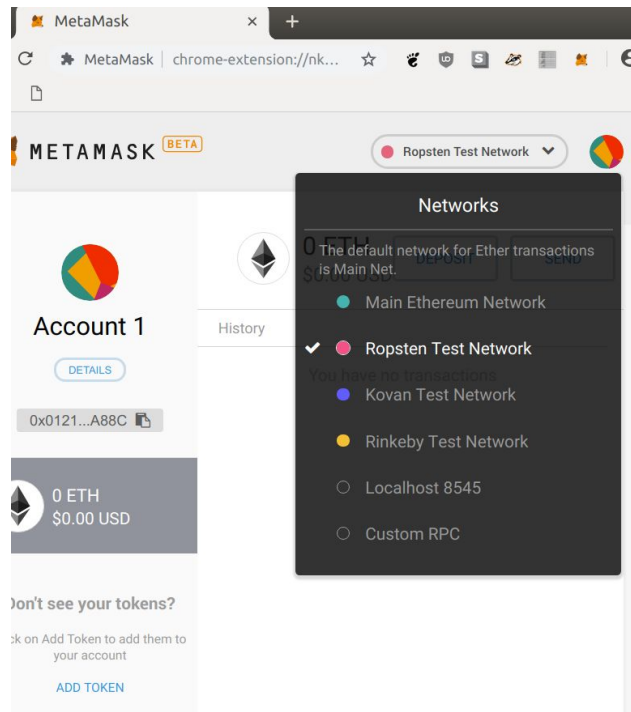
- In the next step: Confirm your seed phrase by pressing the word blocks (in order). This is to make sure that you actually wrote it down and can remember it.



- Congratulations! You have now setup your MetaMask account. Close the popup Window that asks you to deposit Ether into your account



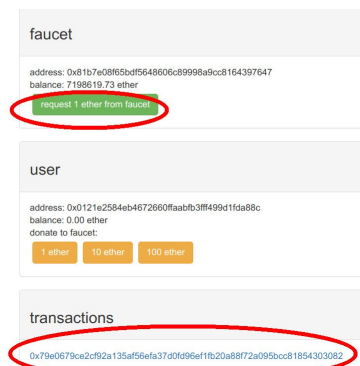
- Next: Change your network in the top right corner from the Main Ethereum Network to the **Ropsten Test Network**. We will use a TestNet to try smart contracts and send money without using real money.



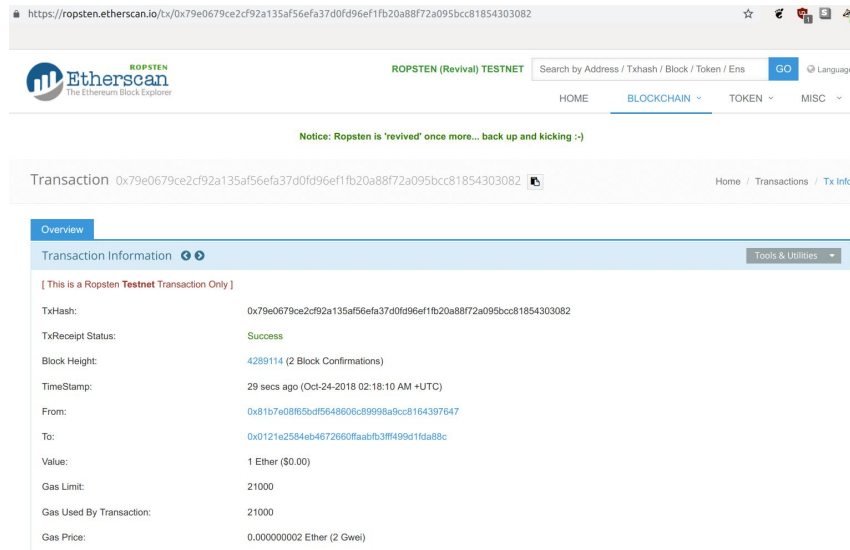
## 4. Get some test Cryptocurrency to your account

Now it's time to get some cryptocurrency into your account. Since we are using a test network we can request Ether from a so called faucets. A Ropsten faucet hosted by MetaMask is located on this website <https://faucet.metamask.io/>

If everything is setup correctly you just need to press **request 1 ether from faucet**.



After that a link to your transaction will be shown at the bottom of the page. You can press it, and inspect the transaction on Etherscan (includes information about sender, receiver, block # etc.)

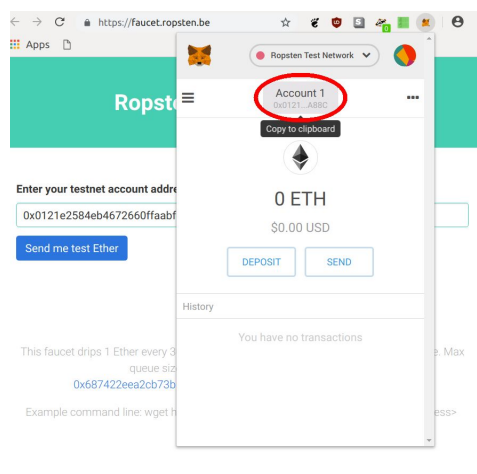


The screenshot shows the Etherscan Ropsten Testnet interface. The URL is <https://ropsten.etherscan.io/tx/0x79e0679ce2cf92a135af56efa37d0fd96ef1fb20a88f72a095bcc81854303082>. The page title is "ROPSTEN (Revival) TESTNET". A notice states: "Notice: Ropsten is 'revived' once more... back up and kicking :-)". The transaction details are as follows:

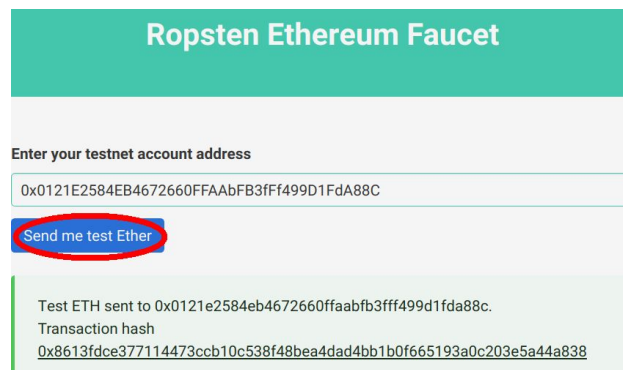
Transaction Information	
[ This is a Ropsten Testnet Transaction Only ]	
TxHash:	0x79e0679ce2cf92a135af56efa37d0fd96ef1fb20a88f72a095bcc81854303082
TxReceipt Status:	Success
Block Height:	4289114 (2 Block Confirmations)
TimeStamp:	29 secs ago (Oct-24-2018 02:18:10 AM +UTC)
From:	0x81b7e08f5bd564860c8999a9cc8104397047
To:	0x0121e2584eb4672660ffaabfb3ff499d1fda88c
Value:	1 Ether (\$0.00)
Gas Limit:	21000
Gas Used By Transaction:	21000
Gas Price:	0.00000002 Ether (2 Gwei)

## ALTERNATIVE FAUCET

There are many other faucets you can try to get test ether. One alternative is to copy your Wallet Public Address, by pressing the **orange fox** and then pressing your account name (default Account 1). Then go to <https://faucet.ropsten.be/> and *paste* your public testnet account address in the field and press **Send me test Ether**.

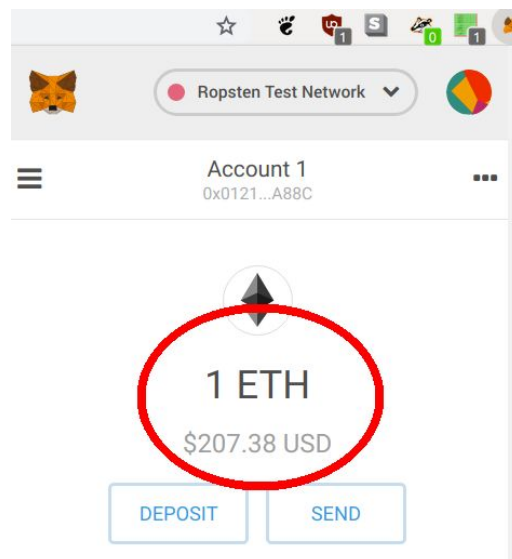


The screenshot shows the Ropsten faucet interface. The "Account 1" dropdown menu is open, showing the address "0x0121...A88C" and a "Copy to clipboard" button. The main form has the address "0x0121e2584eb4672660ffaabfb3ff499d1fda88c" entered in the "Enter your testnet account address" field. The "Send me test Ether" button is visible. The balance shows "0 ETH" and "\$0.00 USD".



The screenshot shows the Ropsten faucet interface after a transaction. The "Send me test Ether" button is highlighted. Below it, the confirmation message reads: "Test ETH sent to 0x0121e2584eb4672660ffaabfb3ff499d1fda88c. Transaction hash 0x8613fdce377114473ccb10c538f48bea4dad4bb1b0f665193a0c203e5a44a838".

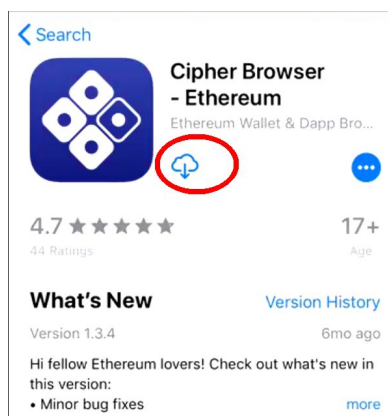
After the block has confirmed (it takes one min) you will have 1 ether in your account!  
Unfortunately it's not real US Dollars.



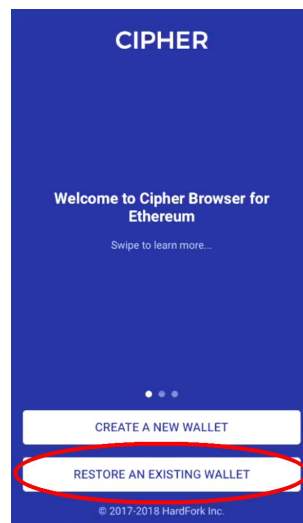
## Set up a mobile crypto wallet and dApp browser

There are many crypto wallets and dApp / smart contract browsers. I recommend Cipher Browser (or Trust browser). Cipher is developed by Coinbase and the one we will look at in this tutorial, because it supports TestNets.

In order to install Cipher go to their website <https://www.cipherbrowser.com/> and install it either for iOS or Android (or search for it in the App Store / Google Play).



When you have installed the app you want to import your wallet from MetaMask in to Cipher. In order to do that you open the app and then choose **Restore an Existing Wallet**



- After that **Agree** to the terms of condition.
- Then you need to put in your 12 seed phrase words that we saved when we setup the MetaMask account.

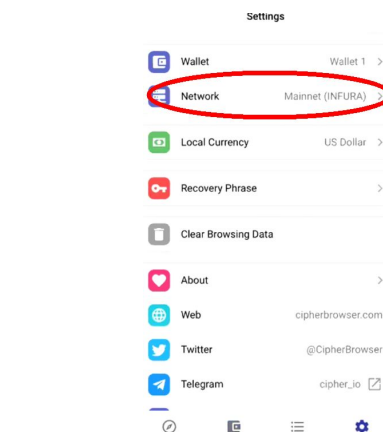


- Press **Confirm** (and enable Touch ID if you want)

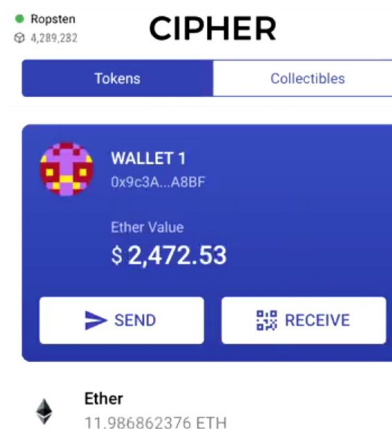




- Congrats! Cipher is setup. Now we need to change from the Mainnet to the Ropsten Testnet. You can do that by pressing the **Settings cogwheel at the bottom right**, and then pressing **Network**:



- Change to **Ropsten Testnet**.
- You should now see all Ethers that you have received from faucets in the account
- 



**Congratulations!** Now you can send and receive Ether as well as interact with Smart Contracts, Decentralized Applications, and browse Web3.0 both on your computer and your mobile phone!