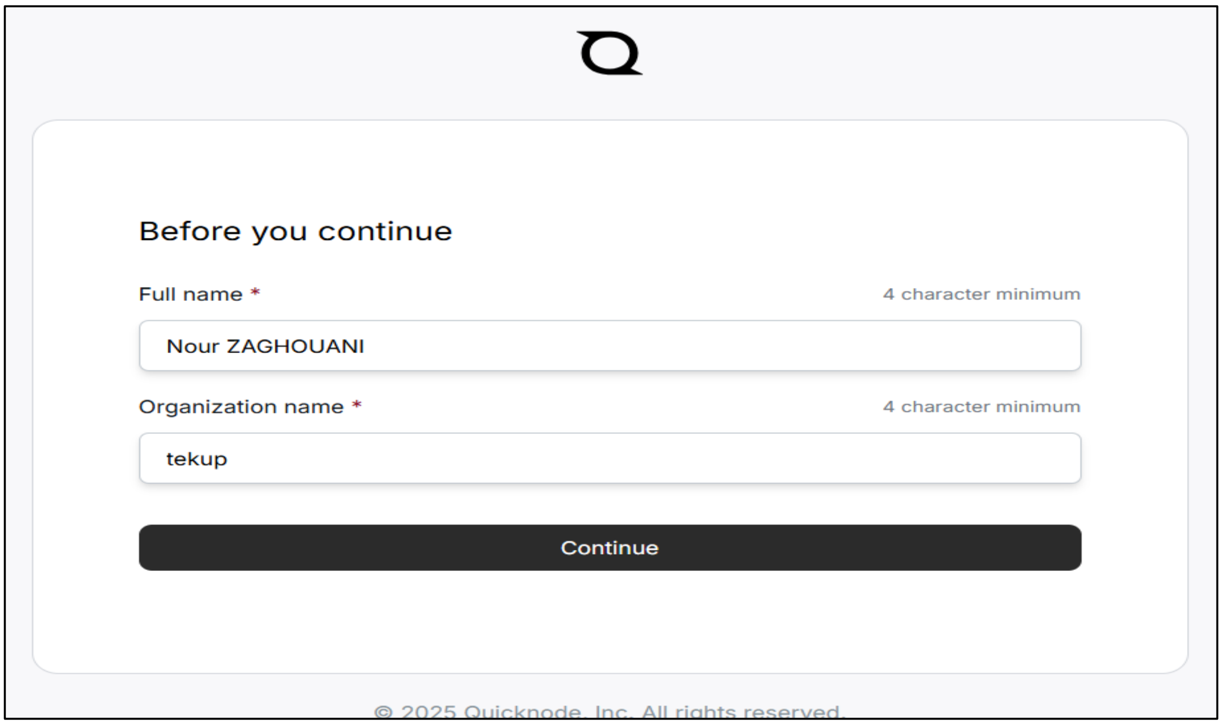
CREATE TOKENS

STEP1: Configuring Blockchain Infrastructure (QuickNode)

Create account in Quicknode.com:



Before you continue

Full name * — 4 character minimum: Nour ZAGHOUANI

Organization name * — 4 character minimum: tekup

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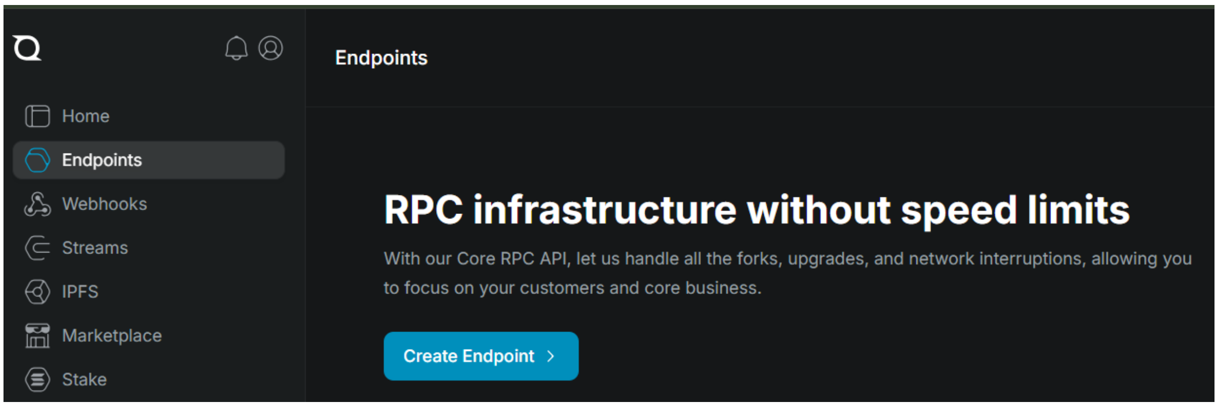
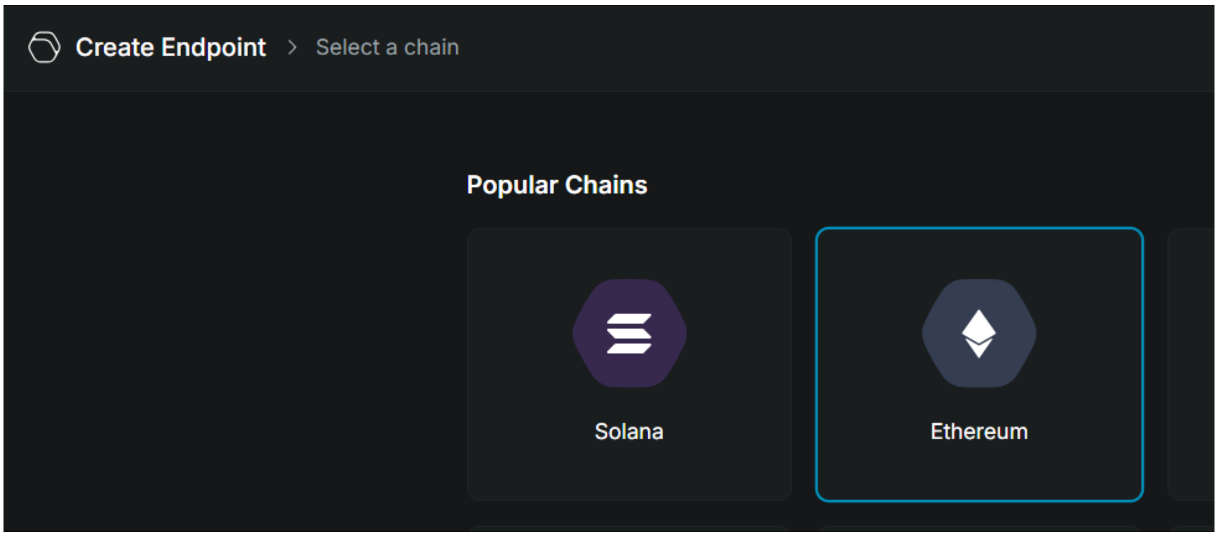


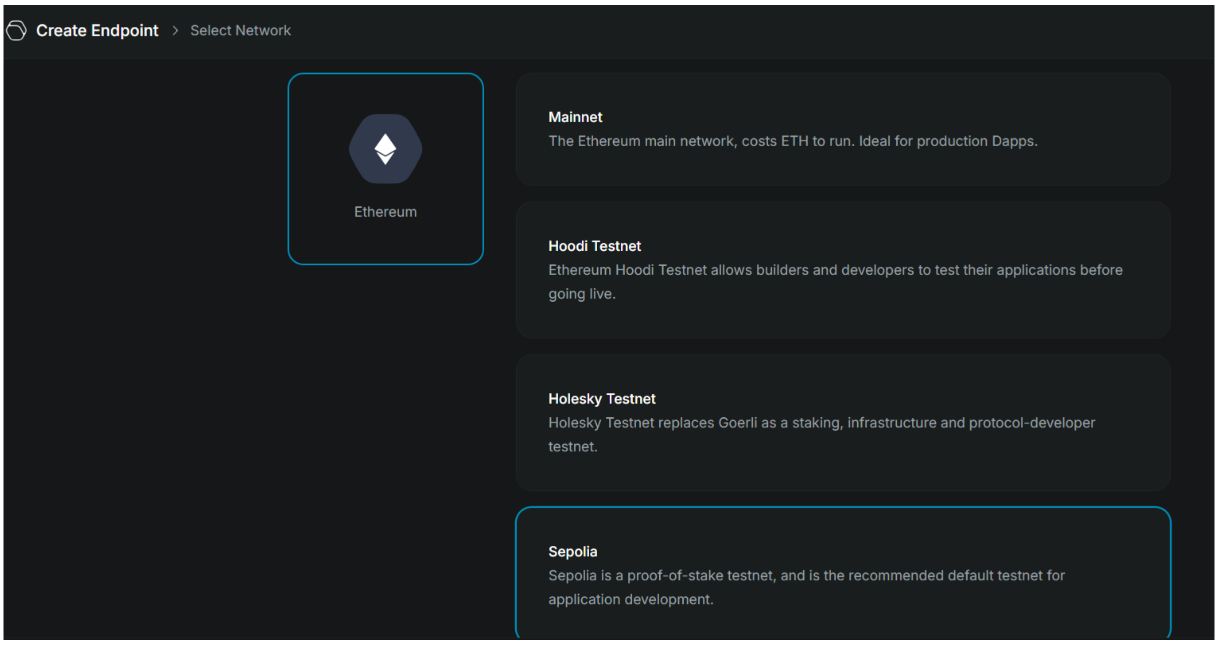
RPC infrastructure without speed limits

With our Core RPC API, let us handle all the forks, upgrades, and network interruptions, allowing you to focus on your customers and core business.

Selection chain



Choose of sepolia as a network


Create Endpoint > Select Network

Ethereum

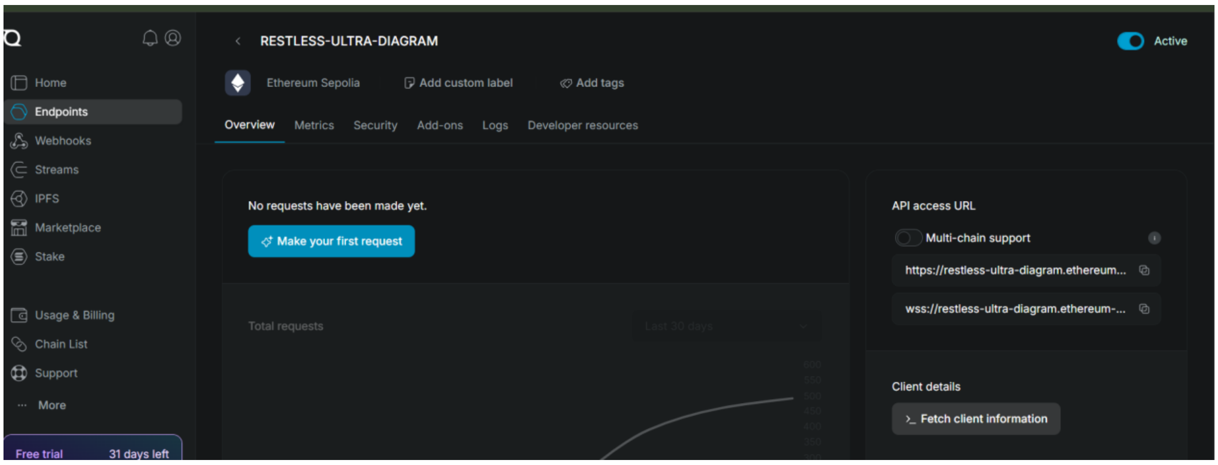
Mainnet
The Ethereum main network, costs ETH to run. Ideal for production Dapps.

Hoodi Testnet
Ethereum Hoodi Testnet allows builders and developers to test their applications before going live.

Holesky Testnet
Holesky Testnet replaces Goerli as a staking, infrastructure and protocol-developer testnet.

Sepolia
Sepolia is a proof-of-stake testnet, and is the recommended default testnet for application development.

Generate of two URL link that will be useful for accessing to network



RESTLESS-ULTRA-DIAGRAM

Ethereum Sepolia

No requests have been made yet.

Total requests

API access URL

Multi-chain support

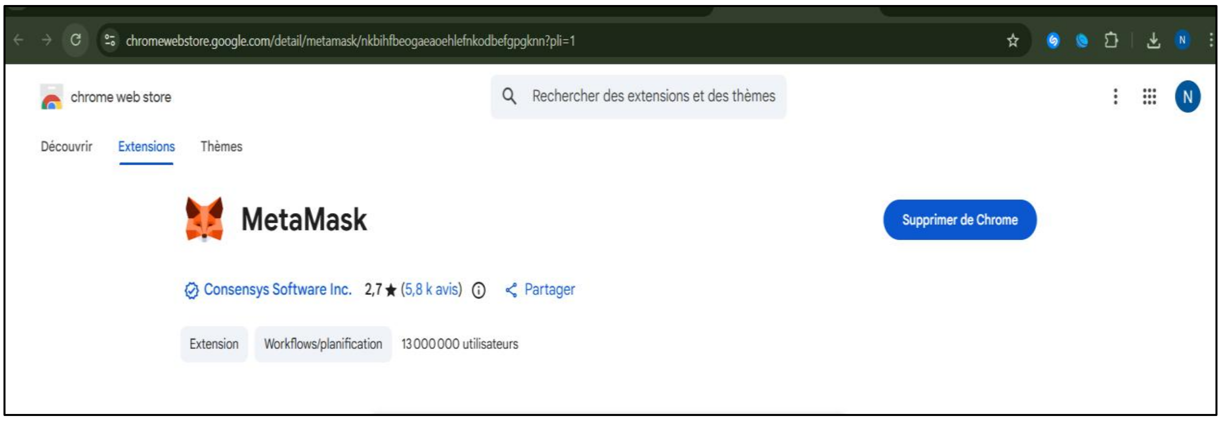
https://restless-ultra-diagram.ethereum...

wss://restless-ultra-diagram.ethereum-...

Client details

STEP2: Wallet (MetaMask) Configuration

Add extension MetaMask for navigator

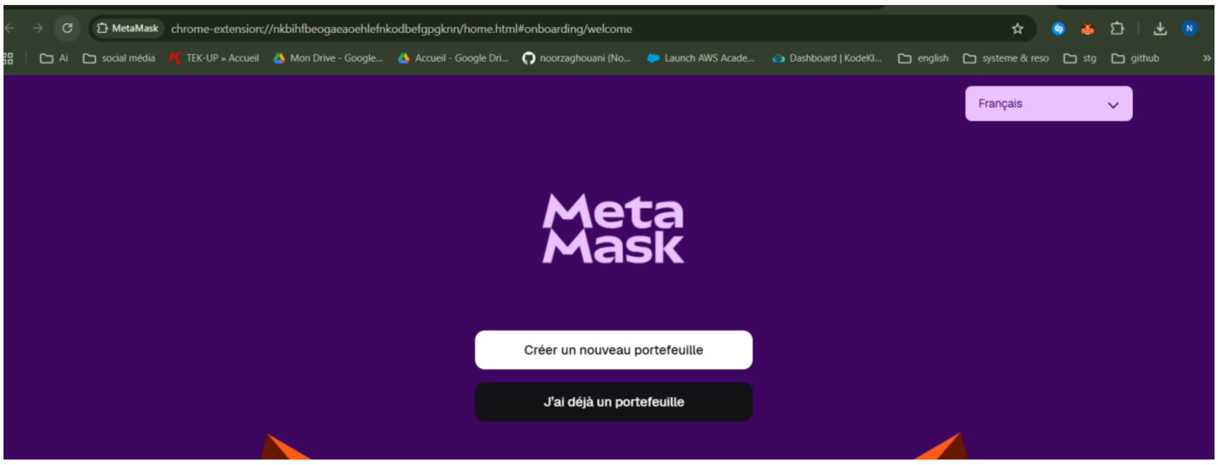

chromewebstore.google.com/detail/metamask/nkbihfbeogaeaoehlefnkodbefgpgknn?pli=1

MetaMask

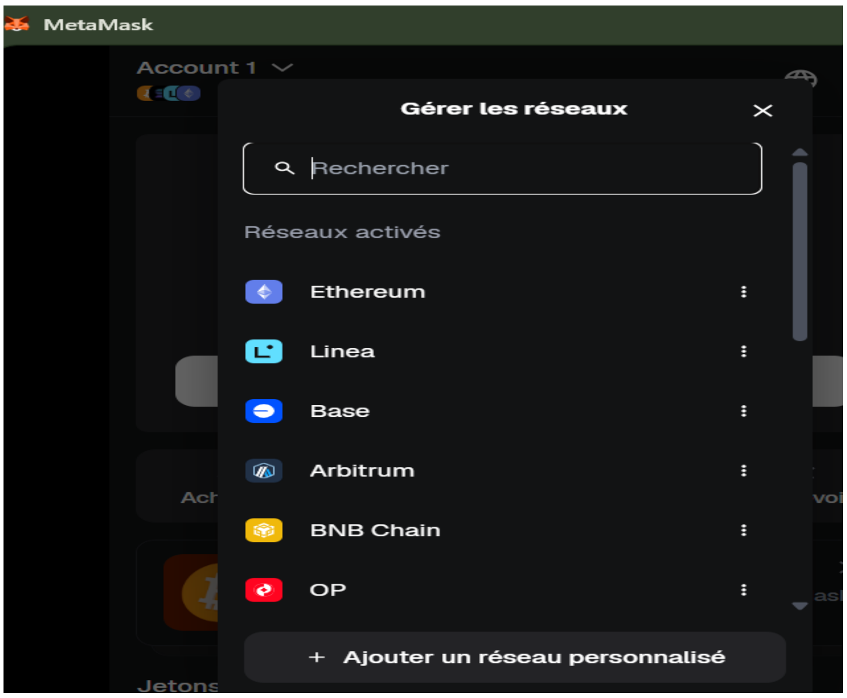
Consensys Software Inc. 2,7 ★ (5,8 k avis)

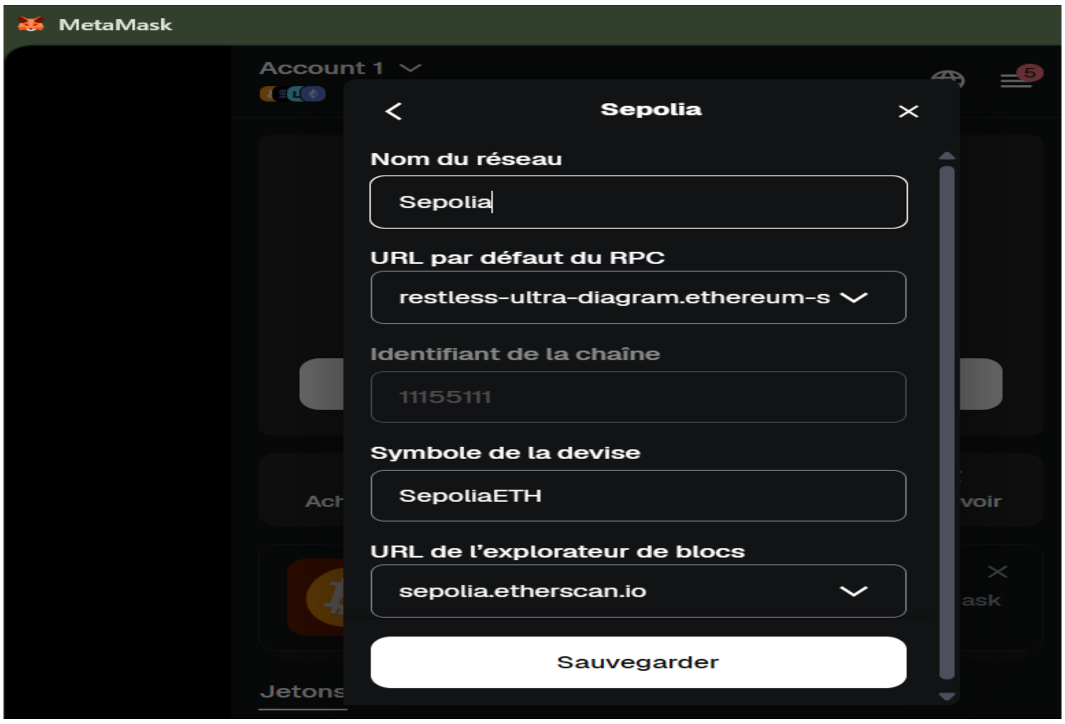
Extension   Workflows/planification   13 000 000 utilisateurs

Creation of new wallet


MetaMask
chrome-extension://nkbihfbeogaeaoehlefnkodbefgpgknn/home.html#onboarding/welcome
Français
MetaMask
Créer un nouveau portefeuille
J'ai déjà un portefeuille

Add a personalized network




MetaMask

Sepolia

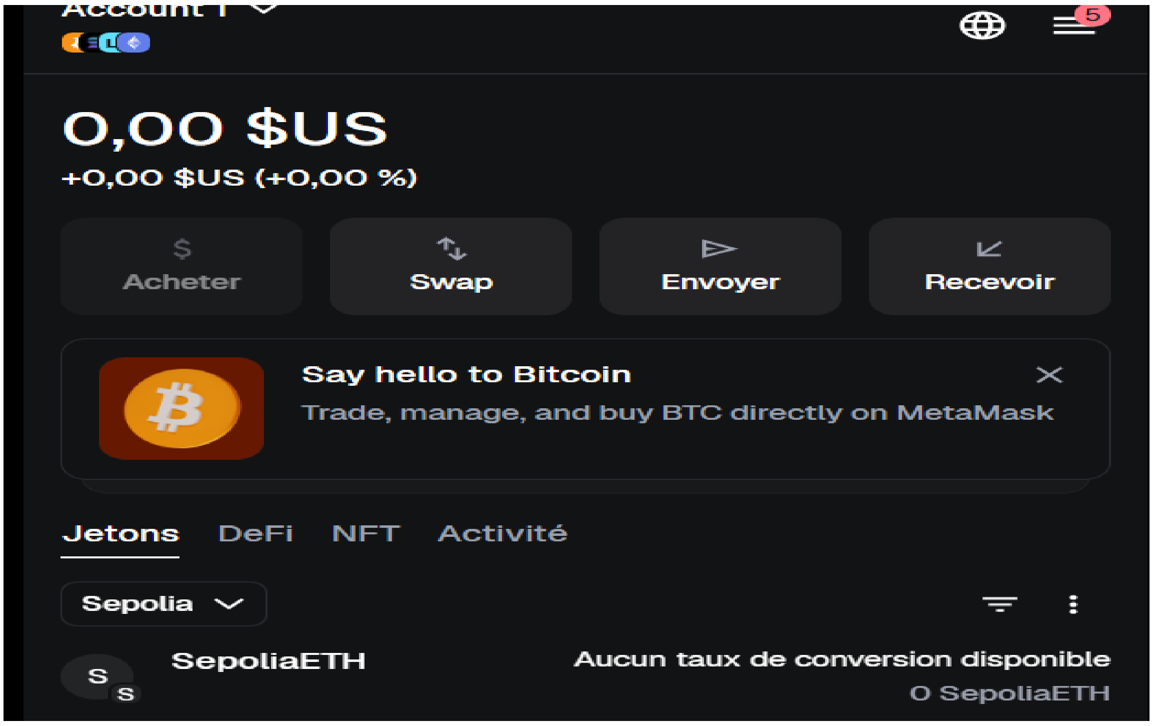
Nom du réseau: Sepolia

URL par défaut du RPC: restless-ultra-diagram.ethereum-s

Identifiant de la chaîne: 11155111

Symbole de la devise: SepoliaETH

URL de l'explorateur de blocs: sepolia.etherscan.io


Account 1

0,00 $US

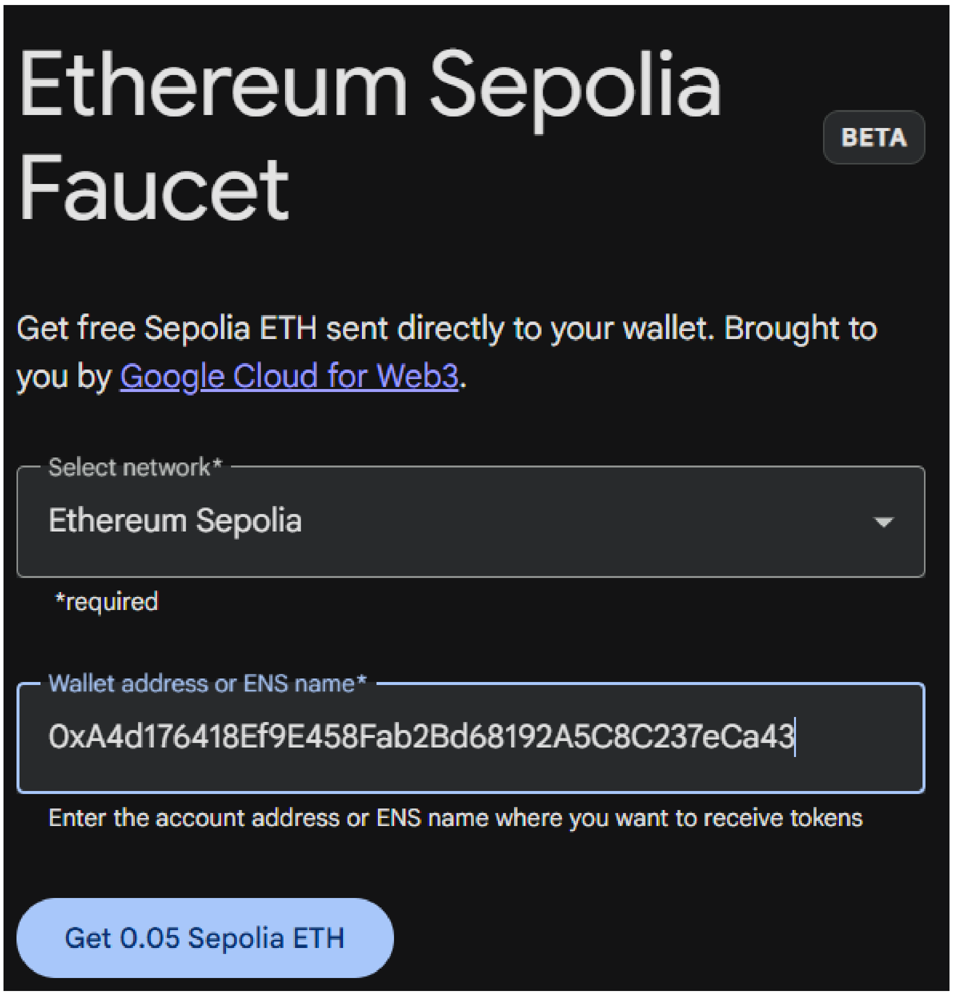
+0,00 $US (+0,00 %)

SepoliaETH — Aucun taux de conversion disponible — 0 SepoliaETH

Means that we are on the Sepolia test network via Quick Node, at beginning our wallet 0 $

We copy the address of account Ethereum and we use Sepolia Faucet like

“google faucet “to recharge the wallet



Ethereum Sepolia Faucet

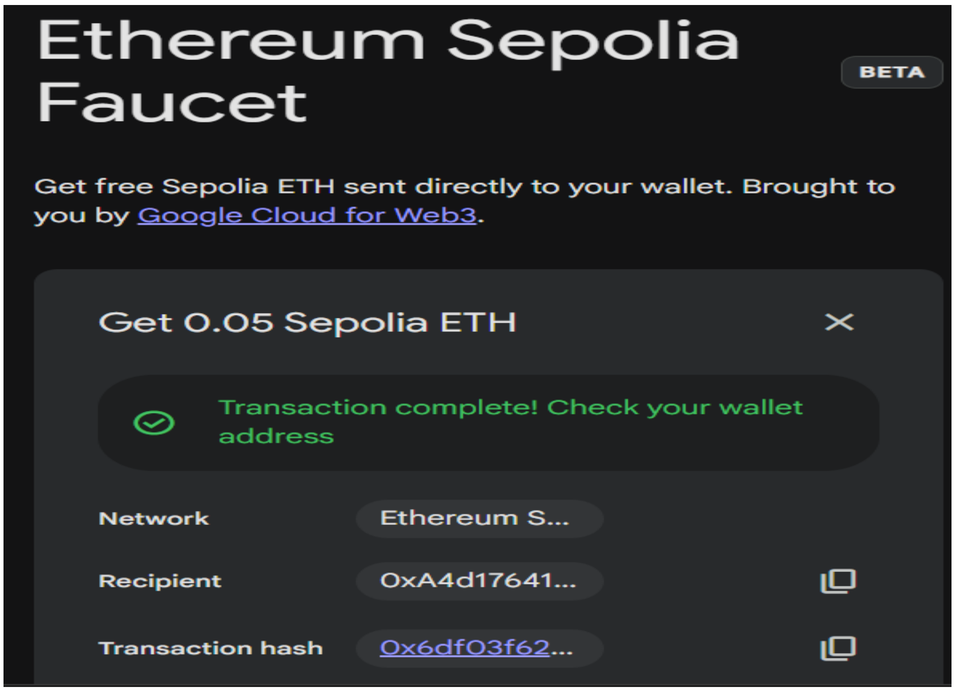
BETA

Get free Sepolia ETH sent directly to your wallet. Brought to you by Google Cloud for Web3.

Select network*
Ethereum Sepolia
*required

Wallet address or ENS name*
0xA4d176418Ef9E458Fab2Bd68192A5C8C237eCa43
Enter the account address or ENS name where you want to receive tokens

Get 0.05 Sepolia ETH



Ethereum Sepolia Faucet

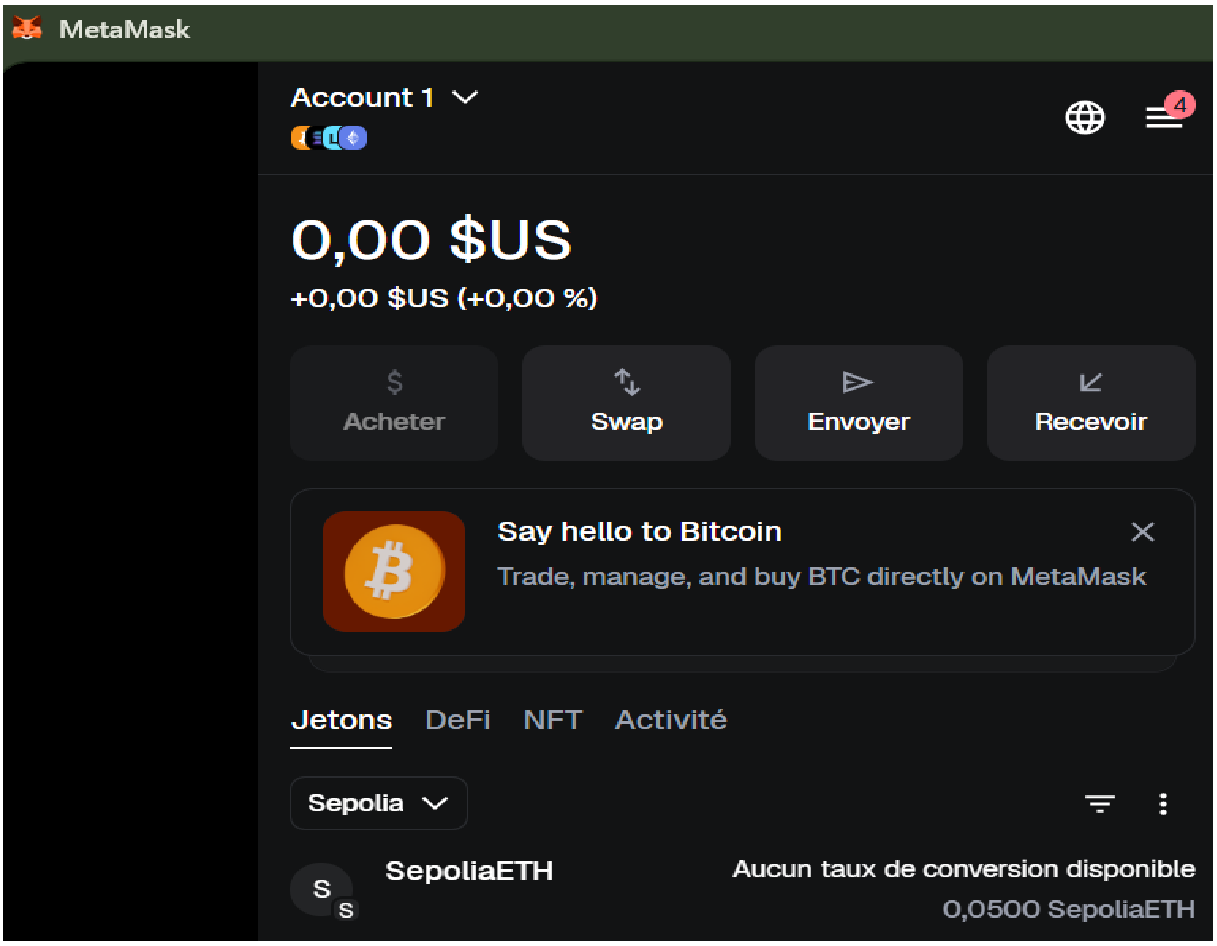
BETA

Get free Sepolia ETH sent directly to your wallet. Brought to you by Google Cloud for Web3.

Get 0.05 Sepolia ETH

Transaction complete! Check your wallet address

Network	Ethereum S...
Recipient	0xA4d17641...
Transaction hash	0x6df03f62...



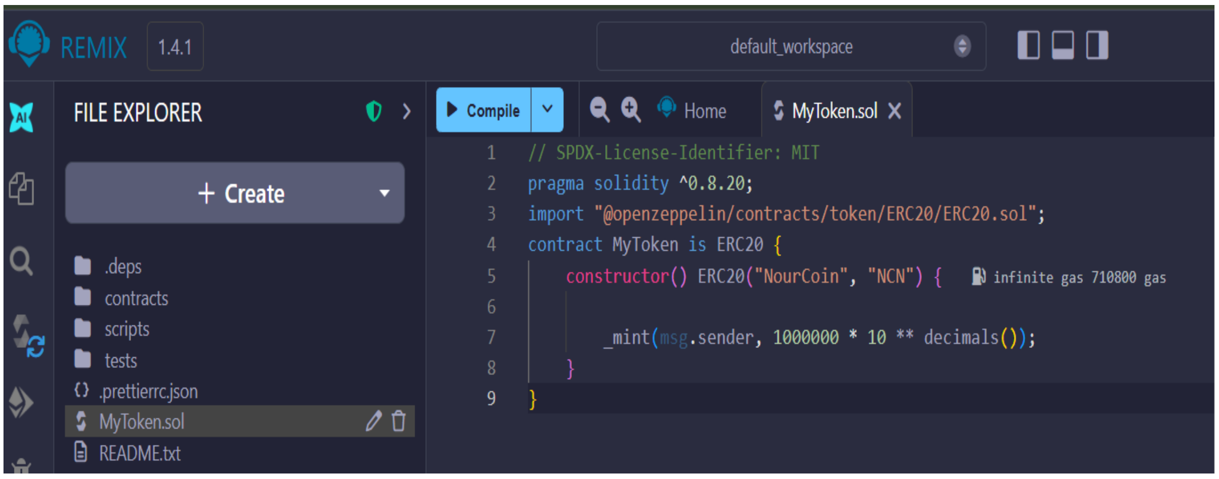
0,00 $US
+0,00 $US (+0,00 %)

Say hello to Bitcoin
Trade, manage, and buy BTC directly on MetaMask

SepoliaETH
Aucun taux de conversion disponible
0,0500 SepoliaETH

0.05 ETH faucets have been recharged properly

STEP3: Development of Smart Contract



```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;
import "@openzeppelin/contracts/token/ERC20/ERC20.sol";
contract MyToken is ERC20 {
    constructor() ERC20("NourCoin", "NCN") {    infinite gas 710800 gas

        _mint(msg.sender, 1000000 * 10 ** decimals());
    }
}
```

import "@openzeppelin/contracts/token/ERC20/ERC20.sol";

It's like importing an "engine part" already manufactured and secured by experts. Instead of reinventing the wheel, we use the "ERC20" standard model (the standard for tokens on Ethereum). This guarantees that the token will be compatible with all wallets.

contract MyToken is ERC20

"My contract is called MyToken and it's a copy of the ERC20 standard model."

constructor() ERC20("NourCoin", "NCN")

This is the label for my **NourCoin** currency.

"NCN" (Nour CoiN); This is the stock symbol (like BTC for Bitcoin or EUR for Euro).

_mint(msg.sender, 1000000 * 10 ** decimals());

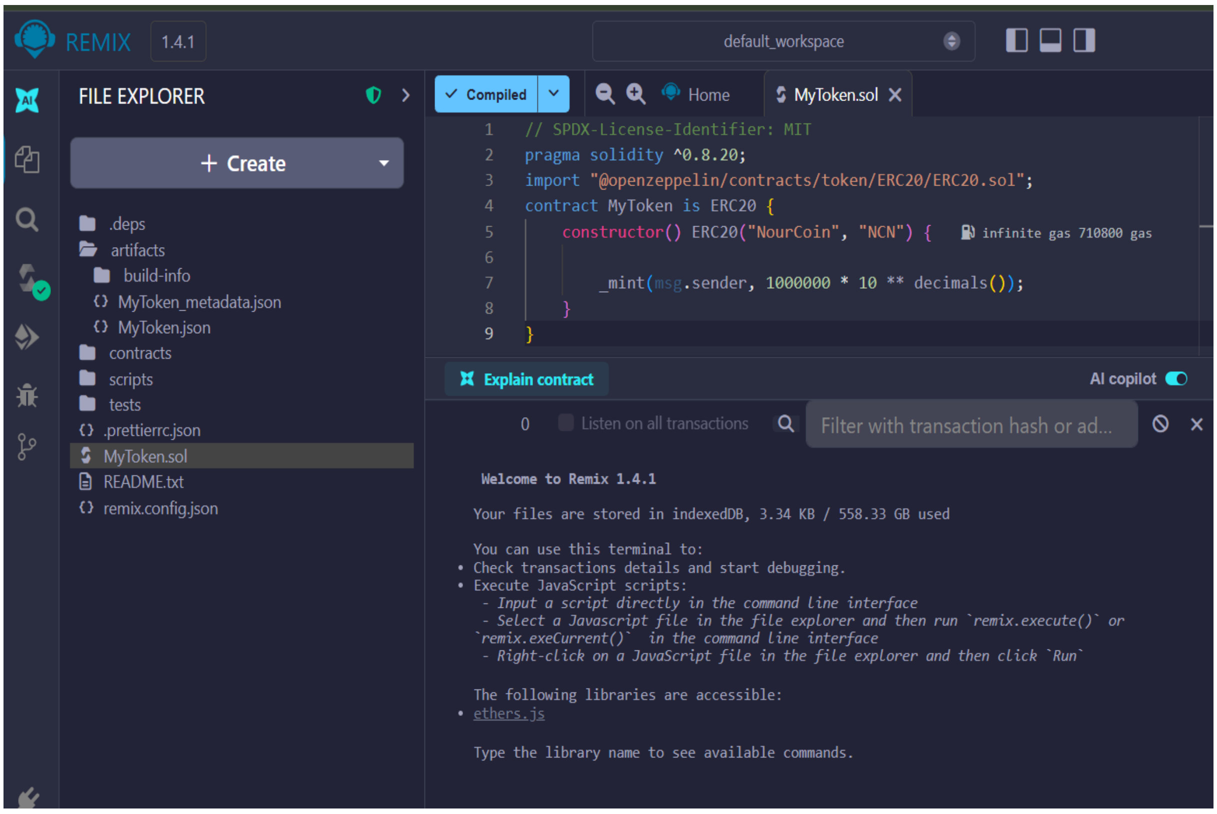
_mint: This means "print coins".

msg.sender: This means "Give them to ME" (the one who executes the contract).

1000000: We print 1 million coins.

STEP4: Deploy token

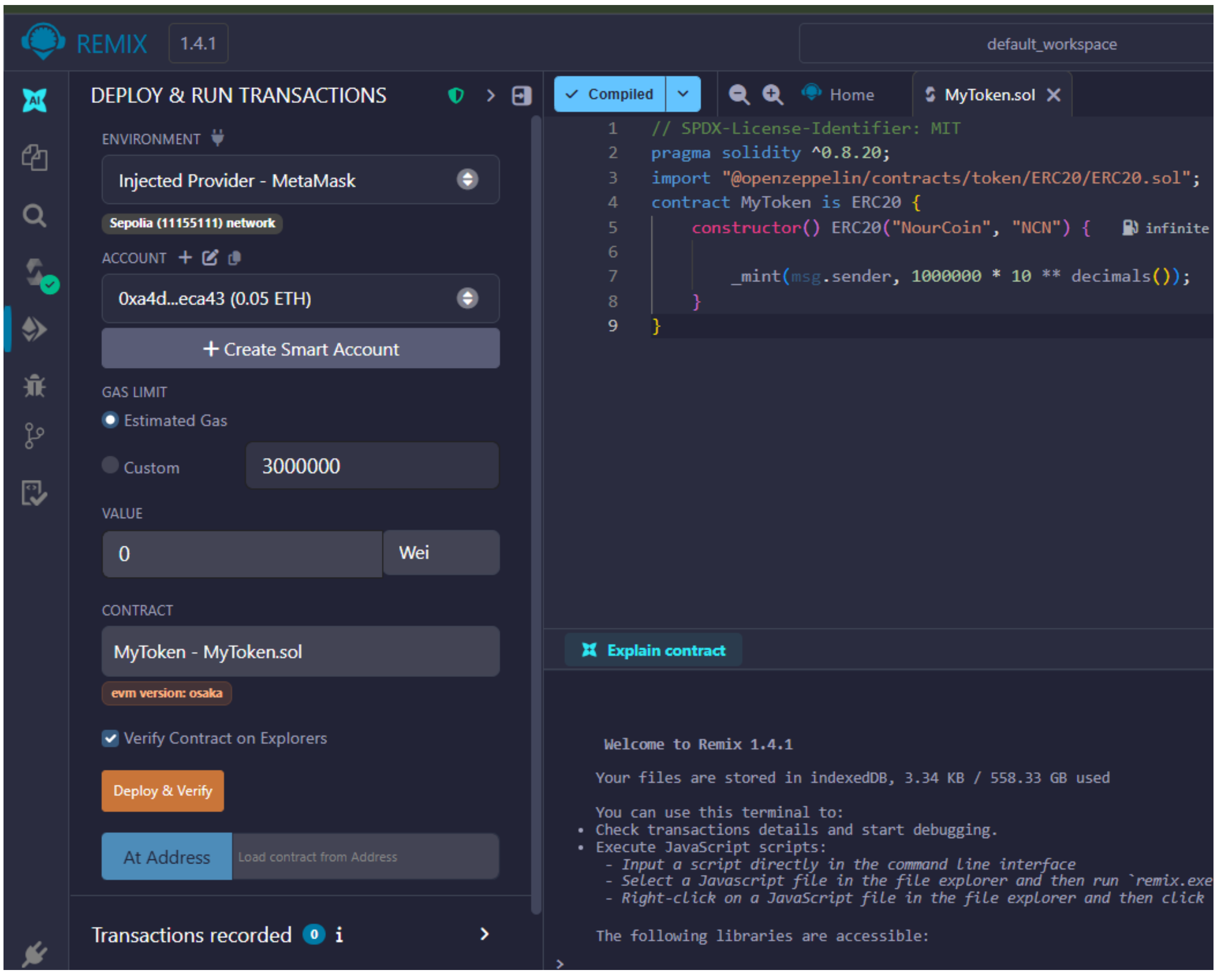
1. Compilation:



```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;
import "@openzeppelin/contracts/token/ERC20/ERC20.sol";
contract MyToken is ERC20 {
    constructor() ERC20("NourCoin", "NCN") {    infinite gas 710800 gas

        _mint(msg.sender, 1000000 * 10 ** decimals());
    }
}
```

```
Welcome to Remix 1.4.1

Your files are stored in indexedDB, 3.34 KB / 558.33 GB used

You can use this terminal to:
• Check transactions details and start debugging.
• Execute JavaScript scripts:
  - Input a script directly in the command line interface
  - Select a Javascript file in the file explorer and then run `remix.execute()` or
`remix.exeCurrent()`  in the command line interface
  - Right-click on a JavaScript file in the file explorer and then click `Run`

The following libraries are accessible:
• ethers.js

Type the library name to see available commands.
```

2. Deploy:

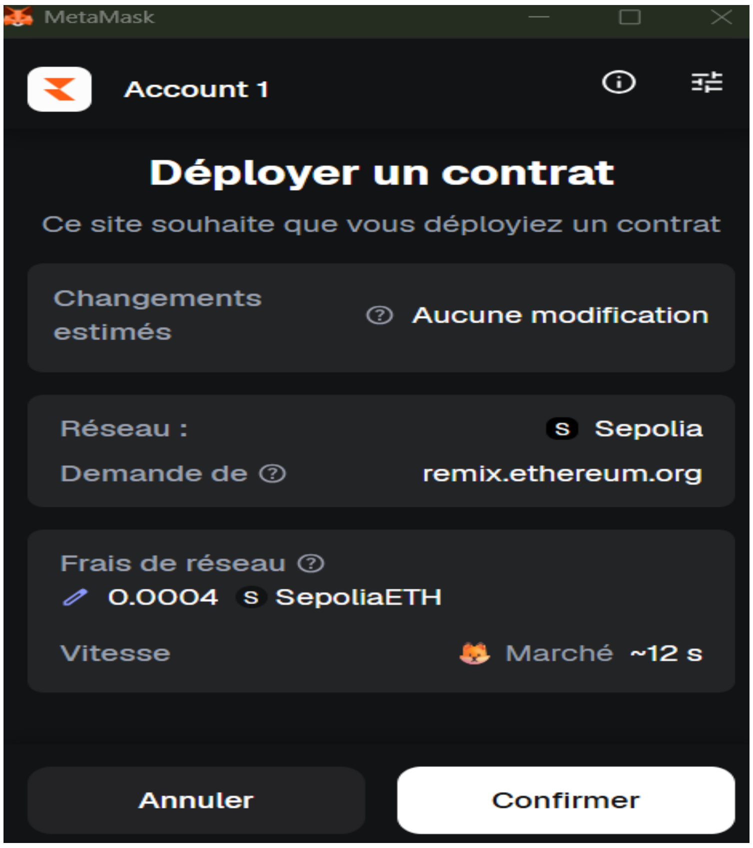


ENVIRONMENT
Injected Provider - MetaMask
Sepolia (11155111) network
ACCOUNT
0xa4d...eca43 (0.05 ETH)
+ Create Smart Account
GAS LIMIT
Estimated Gas
Custom 3000000
VALUE
0 Wei
CONTRACT
MyToken - MyToken.sol
evm version: osaka
✓ Verify Contract on Explorers
Deploy & Verify
At Address Load contract from Address
Transactions recorded 0

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.20;
import "@openzeppelin/contracts/token/ERC20/ERC20.sol";
contract MyToken is ERC20 {
    constructor() ERC20("NourCoin", "NCN") {      infinite

        _mint(msg.sender, 1000000 * 10 ** decimals());
    }
}
```

```
 Welcome to Remix 1.4.1

Your files are stored in indexedDB, 3.34 KB / 558.33 GB used

You can use this terminal to:
• Check transactions details and start debugging.
• Execute JavaScript scripts:
  - Input a script directly in the command line interface
  - Select a Javascript file in the file explorer and then run `remix.exe
  - Right-click on a JavaScript file in the file explorer and then click

The following libraries are accessible:

>
```

3. Confirmation



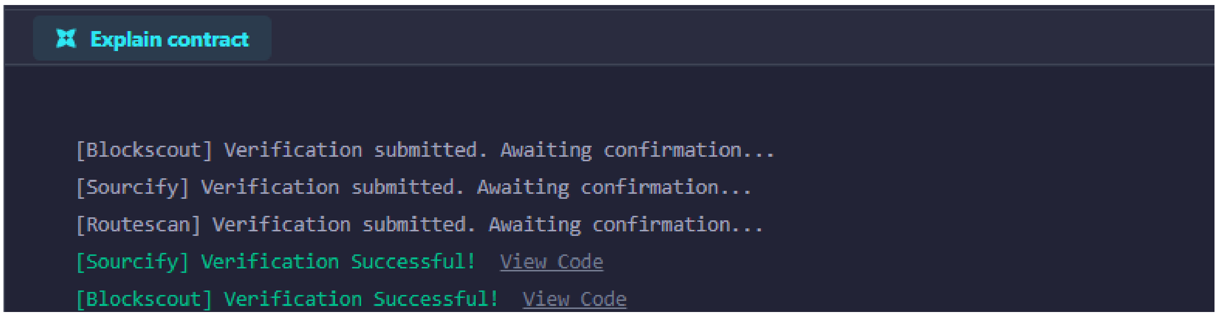
Déployer un contrat

Ce site souhaite que vous déployiez un contrat

Changements estimés — Aucune modification

Réseau : S Sepolia
Demande de remix.ethereum.org

Frais de réseau
0.0004 S SepoliaETH
Vitesse Marché ~12 s



```
[Blockscout] Verification submitted. Awaiting confirmation...
[Sourcify] Verification submitted. Awaiting confirmation...
[Routescan] Verification submitted. Awaiting confirmation...
[Sourcify] Verification Successful!  View Code
[Blockscout] Verification Successful!  View Code
```

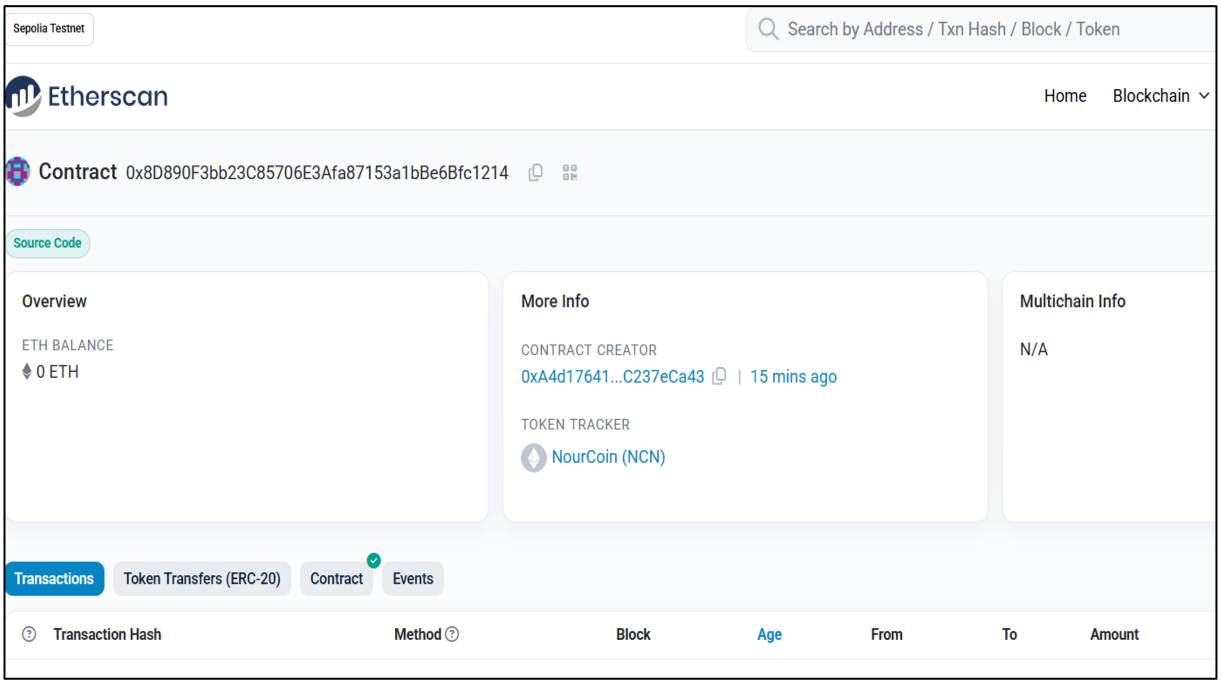
Step 5: Token Verification and Import

1. Verification:

The contract is now "live" on the global network. Anyone with my address can see my contract and even interact with it.

Address of contract: 0x8D890F3bb23C85706E3Afa87153a1bBe6Bfc1214

EtherScan : TESTNET Sepolia (ETH) Blockchain Explorer



Contract 0x8D890F3bb23C85706E3Afa87153a1bBe6Bfc1214

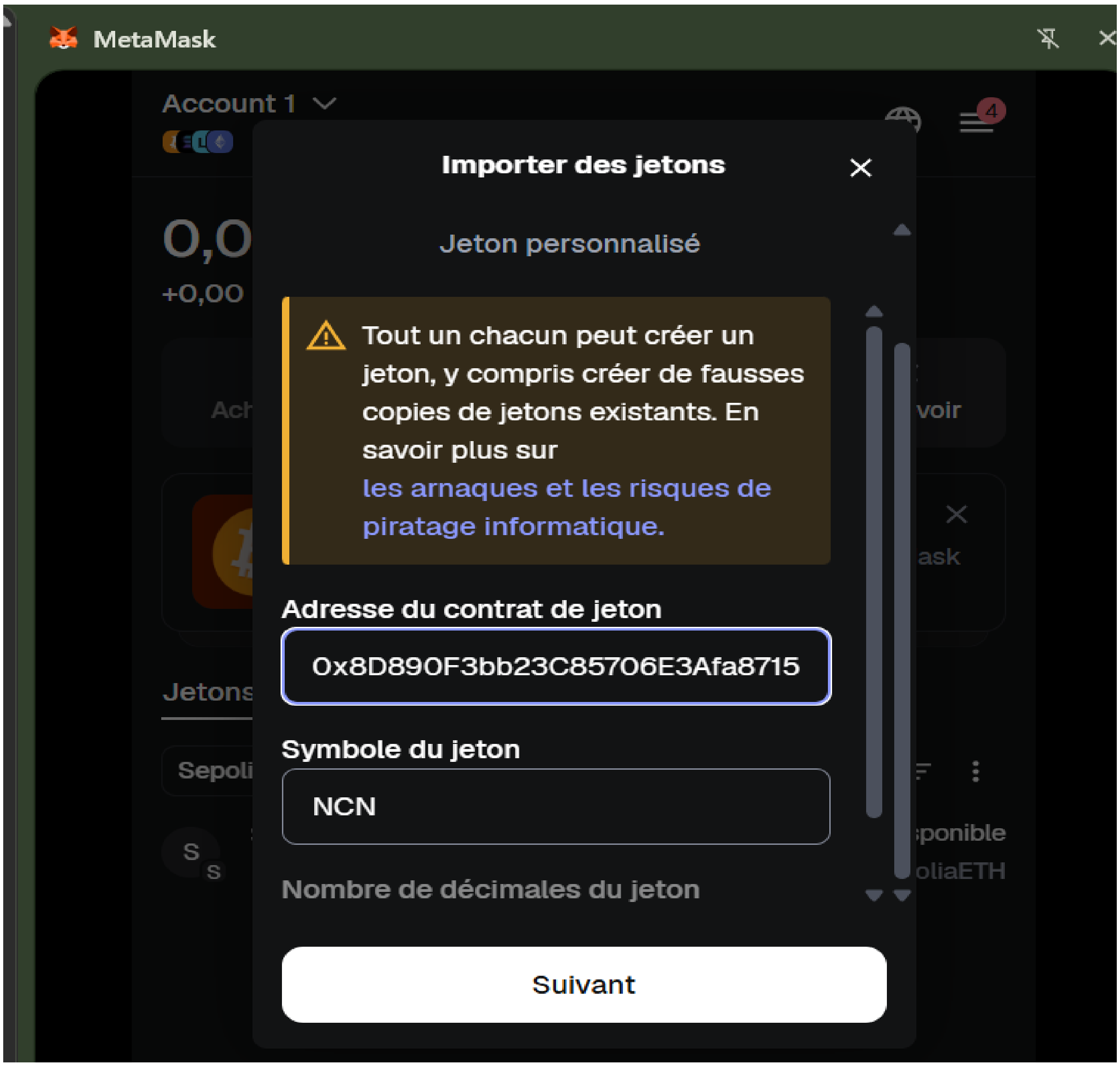
Overview
ETH BALANCE
0 ETH

More Info
CONTRACT CREATOR
0xA4d17641...C237eCa43 | 15 mins ago
TOKEN TRACKER
NourCoin (NCN)

Multichain Info
N/A

Transaction Hash	Method	Block	Age	From	To	Amount

2. Import: we simply enter the address of contract end then import


MetaMask

Account 1

Importer des jetons

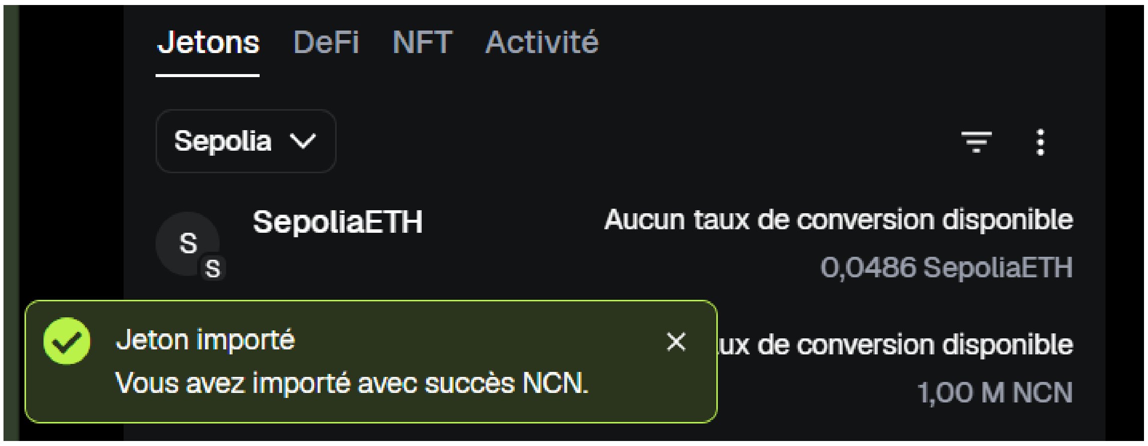
Jeton personnalisé

Tout un chacun peut créer un jeton, y compris créer de fausses copies de jetons existants. En savoir plus sur les arnaques et les risques de piratage informatique.

Adresse du contrat de jeton: 0x8D890F3bb23C85706E3Afa8715

Symbole du jeton: NCN

Nombre de décimales du jeton



SepoliaETH — Aucun taux de conversion disponible — 0,0486 SepoliaETH

ux de conversion disponible — 1,00 M NCN

Jeton importé

Vous avez importé avec succès NCN.