

使用 Windows 的同学

- Node <https://nodejs.org/en/>
- Git <https://git-scm.com/download/win>
- Python <https://www.python.org/downloads/release/python-2715/>
- Truffle <https://github.com/trufflesuite/truffle>

最后走一次 `npm install --global --production windows-build-tools`

安装 Visual Studio Code, solidity extension 与 material icon theme
之后课堂再安装 web3 与 hdwallet

- a. `npm install truffle-hdwallet-provider`
- b. `npm install web3@1.0.0-beta.37`

Mnemonic converter <https://iancoleman.io/bip39/>

Steps:

1. In your truffle working directory (MSFTCoin for example)
`npm install openzeppelin-solidity`
2. Add **MSFTCoin.sol** in contracts folder

```
pragma solidity ^0.5.0;

import "openzeppelin-solidity/contracts/token/ERC20/ERC20.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Detailed.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Mintable.sol";
import "openzeppelin-solidity/contracts/token/ERC20/ERC20Burnable.sol";

/*
import 'zeppelin-solidity/contracts/token/ERC20/StandardToken.sol';
*/

contract MSFTCoin is ERC20, ERC20Detailed, ERC20Mintable, ERC20Burnable {

    string private _name = "MSFTCoin";
    string private _symbol = "MFC";
    uint8 private _decimals = 2;

    constructor(
    )
    ERC20Burnable()
    ERC20Mintable()
    ERC20Detailed(_name, _symbol, _decimals)
    ERC20()
    public
    {}
}
```

3. Add **2_deploy_msftcoin.js** in migration folder

```
const MSFTCoin = artifacts.require("MSFTCoin");

module.exports = function(deployer) {
  deployer.deploy(MSFTCoin);
};
```

4. **Truffle compile** then **truffle migrate --network westlake**
Copy the contract address for MetaMask to add token later

```
3_deploy_msftcoin.js
=====

Replacing 'MSFTCoin'
-----
> transaction hash: 0x06ad8a9246ae3bc2738216ce5e6b6de82425eb985fe94cdf1bdf83d8feb7b5b8
> Blocks: 3 Seconds: 18
> contract address: 0x6c4B0cc86e70609Dff343273E63D7a73d714125E
> account: 0xe1eD86D4B82afE5c7ec3F0FF2A2919eC5E9eEA4f
> balance: 0
> gas used: 2158767
> gas price: 0 gwei
> value sent: 0 ETH
> total cost: 0 ETH
```

5. Click **Add Token** on the bottom left of MetaMask, paste the contract address and Token Symbol should show up automatically.

Add Tokens

Search

Custom Token

Token Contract Address

0x6c4B0cc86e70609Dff343273E63D7a73d7141

Token Symbol

MFC

Edit

Decimals of Precision

2

CANCEL

NEXT


6. Print (**Mint**) money for yourself and should see the value from MetaMask once the transaction is confirmed. You can start to transfer token to other address.

truffle console --network Westlake

>networks


>var myCoin = await MSFTCoin.deployed()


>myCoin.mint("metamask_address", 1234500)




Jacky MetaMask

[DETAILS](#)

0xe1eD...EA4f 



0 ETH




1190.50 MFC ...

Don't see your tokens?

Click on Add Token to add them to your account


[ADD TOKEN](#)



1190.50 MFC

[SEND](#)


History

**Sent Tokens**

CONFIRMED

#27 - 4/4/2019 at 10:21

-22 MFC

**Sent Tokens**

CONFIRMED

#15 - 4/3/2019 at 21:25




-22 MFC

Details

From: 0xe1eD86D4B82afE5c7ec3F0FF2A2919e... > To: 0xF0abbbB5c5DE7B57e1B628EdE94D79ce...

Transaction	
Amount	0 ETH
Gas Limit (Units)	77260
Gas Used (Units)	51507
Gas Price (GWEI)	0
Total	0 ETH

Activity Log

-  Transaction created with a value of 0 ETH at 21:25 on 4/3/2019.
-  Transaction submitted with gas fee of 0 WEI at 21:25 on 4/3/2019.
-  Transaction confirmed at 21:26 on 4/3/2019.