

Disciplina:

SMART CONTRACTS

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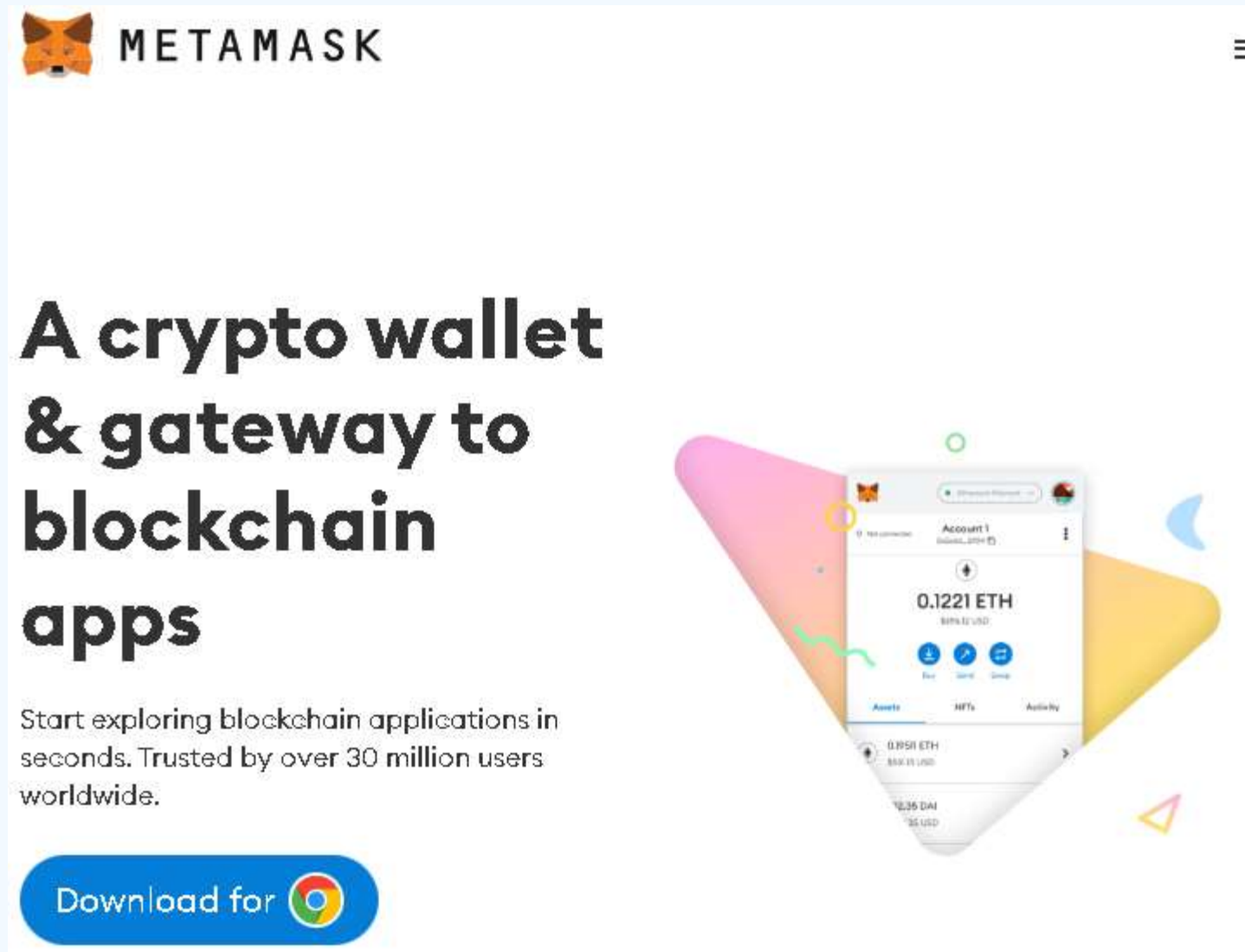
SMAC_2022Sem02–Mod.03

Agenda Módulo #3 : Prática 01

- MetaMask
- Etherscan
- Primeira Transação
- Enviar Eth entre contas
- Remix
- Primeiro Contrato
- Deploy
- Simple Storage

MetaMask


- <https://metamask.io>



METAMASK

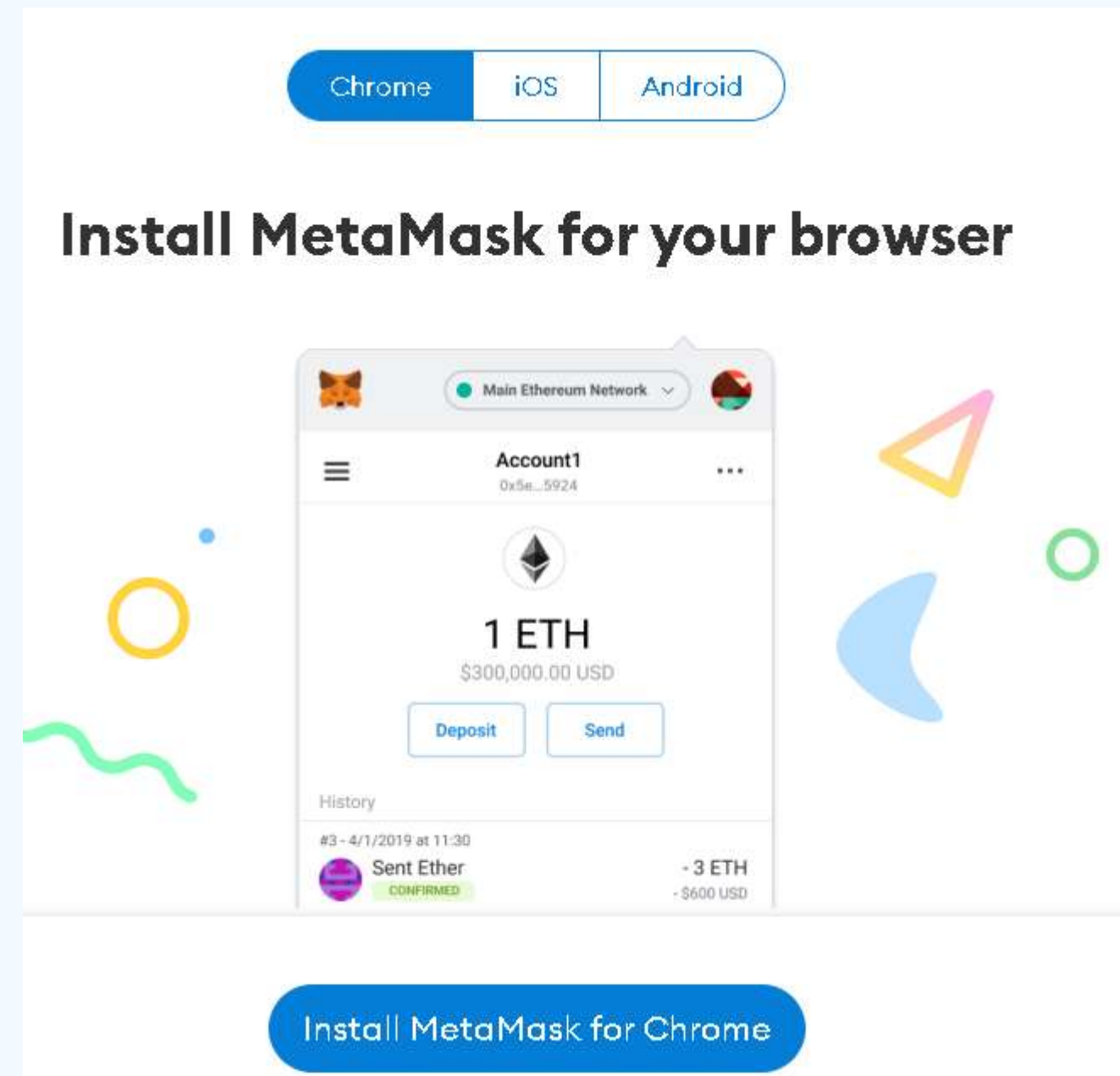
A crypto wallet & gateway to blockchain apps

Start exploring blockchain applications in seconds. Trusted by over 30 million users worldwide.

Download for 

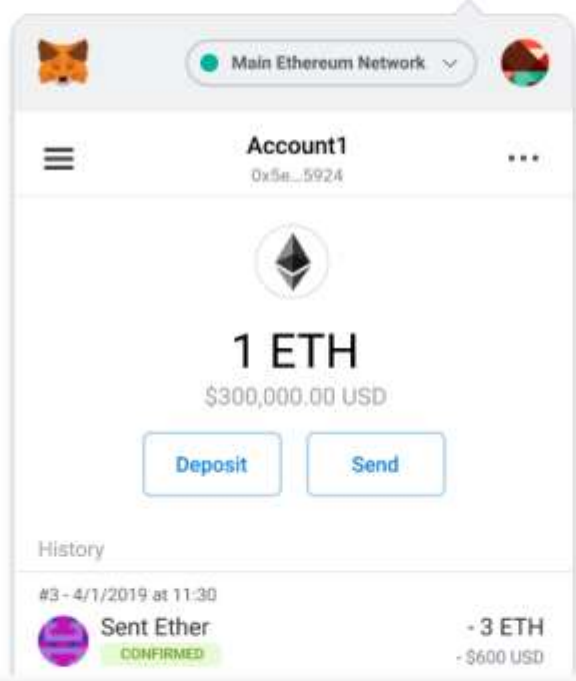
The banner features the MetaMask logo at the top left. Below it, the text 'A crypto wallet & gateway to blockchain apps' is prominently displayed. Underneath, a smaller line of text states 'Start exploring blockchain applications in seconds. Trusted by over 30 million users worldwide.' At the bottom left, there is a blue button with the text 'Download for' followed by the Chrome logo. On the right side of the banner, there is a stylized illustration of a smartphone displaying the MetaMask interface, showing a balance of 0.1221 ETH and various transaction history items. The background of the banner is white with colorful geometric shapes (triangles, circles, and lines) in shades of pink, yellow, and blue.

- Extensão no browser



Chrome iOS Android

Install MetaMask for your browser



Install MetaMask for Chrome

The image shows the MetaMask website's installation page for browser extensions. At the top, there are three buttons: 'Chrome', 'iOS', and 'Android'. Below them, the heading 'Install MetaMask for your browser' is centered. The main visual is a screenshot of the MetaMask extension interface on a Chrome browser. The interface shows the 'Main Ethereum Network' selected, the account 'Account1' with address '0x5e...5924', and a balance of '1 ETH' valued at '\$300,000.00 USD'. There are 'Deposit' and 'Send' buttons. Below this, a 'History' section shows a transaction: '#3 - 4/1/2019 at 11:30', 'Sent Ether', 'CONFIRMED', '- 3 ETH', and '- \$600 USD'. At the bottom, there is a blue button that says 'Install MetaMask for Chrome'. The background of the page is white with colorful geometric shapes (triangles, circles, and lines) in shades of yellow, blue, and green.

Metamask : Setup



Welcome to MetaMask

Connecting you to Ethereum and the Decentralized Web.

We're happy to see you.

Get Started

New to MetaMask?

No, I already have MetaMask [Help us improve MetaMask](#)

Import your existing MetaMask v **METAMASK** [our users](#) [ie](#)

METAMASK Ethereum Mainnet

Account 1 Ethereum Mainnet

Networks

[Show/hide](#) test networks [Dismiss](#)

- ✓ Ethereum Mainnet
- Ropsten Test Network
- Kovan Test Network
- Rinkeby Test Network
- Goerli Test Network
- Localhost 8545

[Add Network](#)

Networks

[Show/hide](#) test networks [Dismiss](#)

- ✓ Ethereum Mainnet

[Add Network](#)

[Phrase and keep it stored safely on an external encrypted hard drive or storage medium.](#)

[Show test networks](#)
Select this to show test networks in network list

☒ ON

What is a Secret Recovery Phrase?

Your Secret Recovery Phrase is a 12-word phrase that is the “master key” to your wallet and your funds

How do I save my Secret Recovery Phrase?

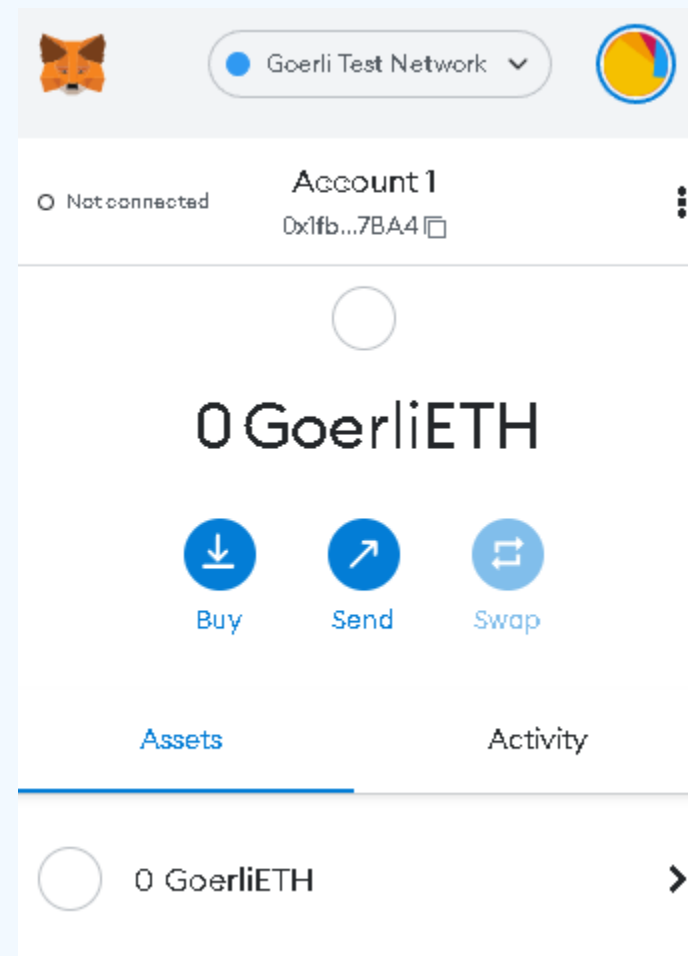
- Save in a password manager
- Store in a bank vault
- Store in a safe deposit box
- Write down and store in multiple secret places

Should I share my Secret Recovery Phrase?

Never, ever share your Secret Recovery Phrase, not even with MetaMask!

If someone asks for your recovery phrase they are likely trying to scam you and steal your wallet funds.

MetaMask : Free Ether (Testnets)



Faucets (nem sempre funcionam)

- <https://faucet.metamask.io/>
- Paradigm :
 - <https://faucet.paradigm.xyz>
- *Ropsten*:
 - <https://faucet.metamask.io>
- *Rinkeby*:
 - <https://faucet.rinkeby.io>
 - <https://www.rinkebyfaucet.com>
 - <https://app.mycrypto.com/faucet>
 - <https://faucets.chain.link/rinkeby>
- *Kovan*:
 - <https://gitter.im/kovan-testnet/faucet>
- *Goerli*:
 - <https://goerli-faucet.slock.it/index.html>
 - <https://faucet.goerli.mudit.blog>

Etherscan

- Todas informações no Ethereum Blockchain são informações publicamente visíveis
- Se alguém enviar uma transação de A para B, isso será visível para todos os participantes da rede.
- Etherscans : aplicação dedicada para rastrear essas transações, os chamados "exploradores de blocos"
- <https://etherscan.io>
 - <https://goerli.etherscan.io>
- <https://polygonscan.com>
 - <https://mumbai.polygonscan.com>
- <https://avascan.info>
 - <https://testnet.snowtrace.io>

Primeira Transação : Enviando Ether

- Criação de contas no MetaMask
- Obter Ether Goerly
- Enviar entre contas
- Detalhes da transação no Metamask
- Checar transações no etherscan

Remix

- <http://remix.ethereum.org/>
- Plugins
- Configuração do compilador
- Node + Remixd
 - <https://nodejs.org/en/download/>
 - `npm install -g remix-project/remixd`

Primeiro Smart Contract

- Remix : novo arquivo
- Storage.sol
- Storage
 - Deploy JVM
 - Observar mudanças de estado nas transações
 - Leitura de estados
 - Leituras de variáveis
 - Visibilidade pública

Simple Storage

- Considerações redes
- Deploy Goerly
- Observar interações na rede
- Injected Web3
- JavaScript VM
- Web3 Provider