

2024

ONCHAIN SUMMER BUILDATHON



ZORA

TECHNICAL WORKSHOP

2024

ONCHAIN SUMMER BUILDATHON



OVERVIEW:

1. BRO WTF IS ZORA
2. PROJECT IDEAS + PRIZE OVERVIEW
3. ZORA PROTOCOL + HOW TO START BUILDING ON ZORA
4. Q+A

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Internet[∞]

Zora's mission is to make creating on the internet free and valuable.

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The screenshot shows the Zora.co homepage. On the left, there's a sidebar with links: Home, Notifications, Explore, Trending, Invite, Offers, and a prominent 'Create' button. The main content area features a digital artwork by user @serezha, depicting a figure in a pink suit against a blue and yellow background. Below the artwork, there's a bio for 'Gregorio' and a '+ Mint' button. To the right, there's a 'Community Spotlight' section with a post about 'RAVE' and a 'Featured' section displaying three other artworks. At the bottom right, there's an 'Enjoy' section showing a screenshot of a game or interface.

ZORA IS A PLACE WHERE PEOPLE CAN CREATIVELY
EXPRESS ONCHAIN.

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Upload imagination

Drag and drop or [choose up to 25 files](#). Upload image, video, audio, PDF or GLB. Or click to start writing.

Max size 2GB.

 Create with Canvas!

**CREATORS EXPRESS THEMSELVES
THROUGH A WIDE RANGE OF MEDIA TYPES
INCLUDING STILL AND MOVING IMAGE,
AUDIO, TEXT, AND 3D FORMATS.**

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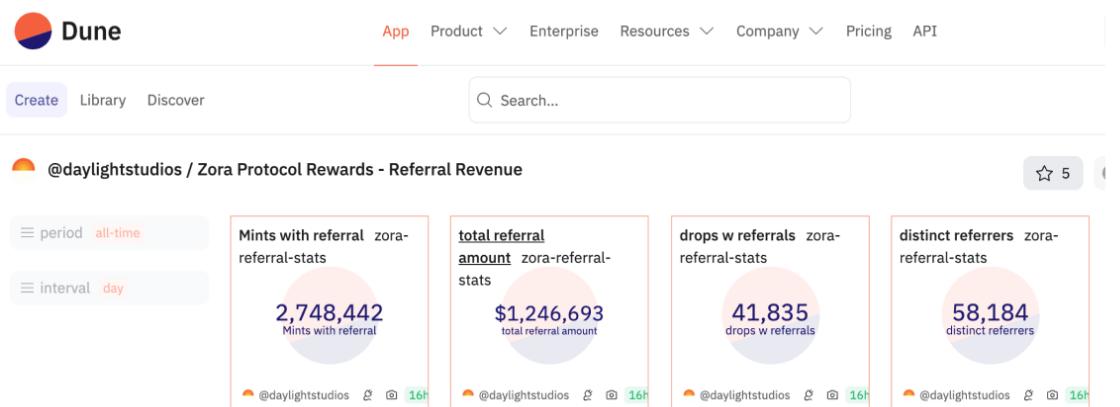


The image displays a grid of nine screenshots from different digital platforms, likely NFT marketplaces or social media interfaces, illustrating various projects and interactions:

- Top Left:** A screenshot of a platform showing an "Artist Journal 272: Adopt and adapt" entry. It features a thumbnail of a wheelchair and a portrait of a man.
- Top Middle:** A screenshot of a platform featuring a vibrant yellow background with a purple carnation flower arrangement.
- Top Right:** A screenshot of a platform showing a white and orange sneaker.
- Middle Left:** A screenshot of a platform showing a pink-themed interface with a yellow illustration and text: "I THINK IT'S TIME - YUNG ALSO FT. GRIMES_AI".
- Middle Middle:** A screenshot of a platform showing a black-themed interface with a bottle of beer and text: "fridays at the park season 002 episode 1".
- Middle Right:** A screenshot of a platform showing a green-themed interface with a cartoon character and text: "I Am So Lucky And Nothing Can Stop Me by Harmony".
- Bottom Left:** A screenshot of a platform showing a video thumbnail of three people outdoors with text: "Newtro's 2023 Balance + Vuelapelucas mini doc".
- Bottom Middle:** A screenshot of a platform showing a colorful interface with a video thumbnail and text: "hyper_EXPLORER.ap.p".
- Bottom Right:** A screenshot of a platform showing a dark-themed interface with a pond scene and text: "LOTUS MOON".

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PROJECT IDEAS



jacob ★ Top caster in /zora
@jacob · 3d

...

The general idea is to specialize in a particular format, genre or medium.
Something that requires specific UX.

Plug into Zora distro and biz model from day one.

Here are some ideas I'd love to see:

- + Fonts
- + Recipes
- + Public Domain works
- + Meme templates
- + YouTube/Video
- + Scripts/Screenplays
- + SVGs
- + ???

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CREATE

YOUTUBE/VIDEOS
MEME TEMPLATES
SVGS
SCREENPLAYS
RECIPES
FONTS

EXAMPLES:
BOUND.WTF (NOUNS MEDIA)

COLLECT

NEW MINTING EXPERIENCES
SOCIAL MINTING
NOVEL MECHANICS
COLLECTING MADE CREATIVE

EXAMPLES:
DAYLIGHT, SURREAL, WARPCAST

CURATE/ DISCOVER

ARE.NA MOODBOARDS
DISCOVERY PLATFORMS

EXAMPLES:
GALLERY, REFRACTION, MINT FUN

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20 ETH TOTAL PRIZEPOOL!!!!

TOP WINNER: 6 ETH

CREATE
3 ETH

COLLECT
3 ETH

CURATE/
DISCOVER
3 ETH

IMAGINE
3 ETH

HONORABLE MENTIONS: SPLIT 2 ETH

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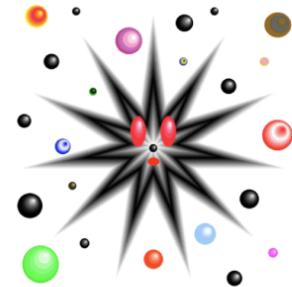
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ZORA CONTRACTS

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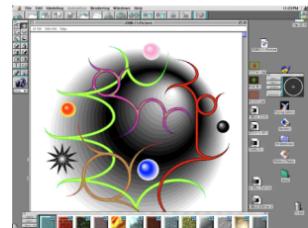
ONCHAIN SUMMER BUILDATHON



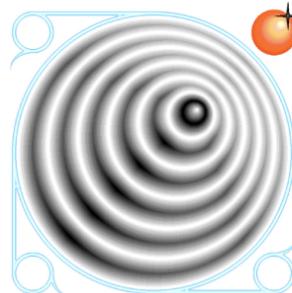
Surrounded by Zorbs * ●
⊕ 2.5k



Birth of Zorb ♦ ●
⊕ 553



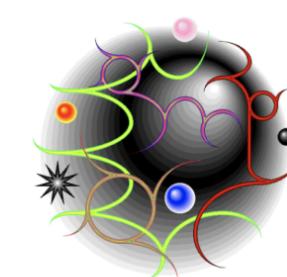
Zorb Process .+` . ●
⊕ 806



Cloud Rings Zorb ◊ ●
⊕ 482



Zorb Alignment ↵●
⊕ 468



Zorb.222 by 2oo2 ●
⊕ 83k

1155 Contract

Multiple tokens per contract

Multiple editions per token

Multiple owners per token

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Search



* 0.00100



0



Create

Collection

Create collection



Price

0

ETH



Set your price to 0 ETH to earn Creator Rewards. [Learn more](#)

[View advanced options](#)

Create

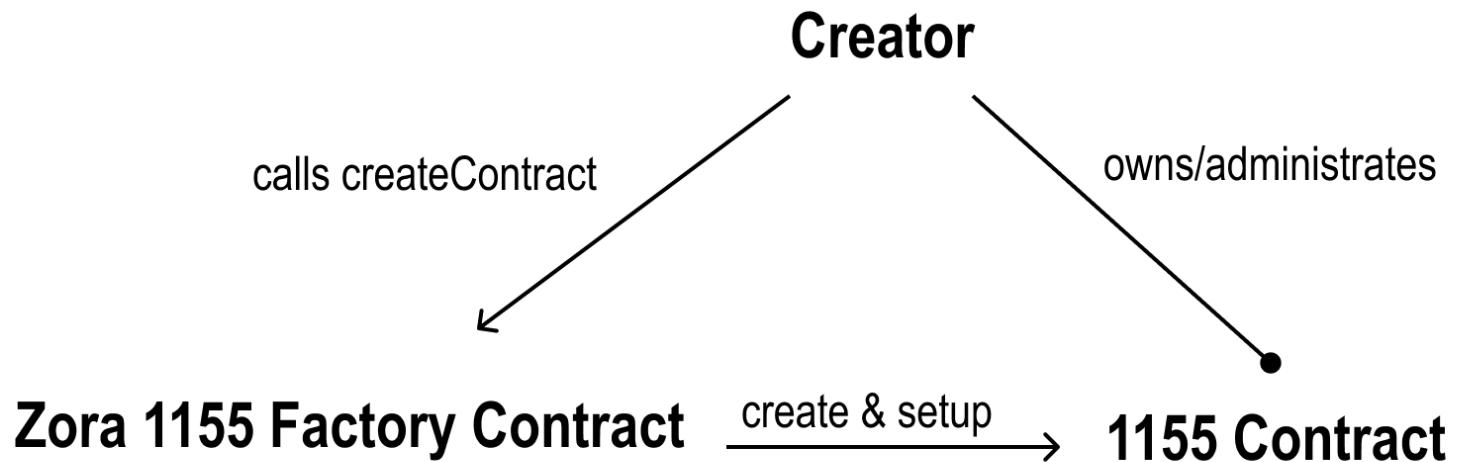


Upload imagination

Drag and drop or [choose up to 25 files](#). Upload image, video, audio, PDF or GLB. Or click to start writing.

Max size 2GB.

Create with Canvas!



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Zora 1155 factory
deployed to
0x777777C338d93e2C7adf08D102d45CA7CC4Ed021



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Zora Protocol TypeScript Packages

@zoralabs/protocol-deployments
contract abis & addresses

@zoralabs/protocol-sdk
higher level abstraction layer simplifying interaction with the
Zora Protocol



for contract abis & addresses:

```
npm install @zoralabs/protocol-deployments
```

```
import * as protocolDeployments from "@zoralabs/protocol-deployments";  
  
protocolDeployments.zoraCreator  
  zoraCreator1155FactoryImplABI  
  zoraCreator1155FactoryImplAddr  
  zoraCreator1155FactoryImplConf  
  zoraCreator1155ImplABI  
  zoraCreator1155PremintExecutor  
  zoraCreator1155PremintExecutor  
  zoraCreator1155PremintExecutor  
  zoraCreatorFixedPriceSaleStrat  
  zoraCreatorFixedPriceSaleStrat  
  zoraCreatorFixedPriceSaleStrat  
  zoraCreatorMerkleMinterStrateg  
  zoraCreatorMerkleMinterStrateg  
  zoraCreatorMerkleMinterStrateg  
  zoraCreatorRedeemMinterFactory  
  zoraCreatorRedeemMinterFactory  
  zoraCreatorRedeemMinterFactory
```



getting a contract address

```
import {
  protocolRewardsABI,
  protocolRewardsAddress,
} from "@zoralabs/protocol-deployments";

const zoraChainId = 7777777;

const addressOnChain = protocolRewardsAddress[zoraChainId];

  const addressOnChain:
  "0x777777F279eba3d3Ad8F4E708545291A6fDBA8B"
```



usage with react + wagmi

```
import {
  useAccount,
  useChainId,
  useReadContract,
  useWriteContract,
} from "wagmi";
import { Address, formatEther } from "viem";
import {
  protocolRewardsABI,
  protocolRewardsAddress,
} from "@zoralabs/protocol-deployments";

const chainId = useChainId();
const { address } = useAccount();

// read the balance of an account on the ProtocolRewards contract
const { data: accountBalance } = useReadContract({
  abi: protocolRewardsABI,
  address:
    protocolRewardsAddress[chainId as keyof typeof protocolRewardsAddress],
  functionName: "balanceOf",
  args: [address as Address],
});
```

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Create

Collection

Create collection



Price

5000



ETH

Set your price to 0 ETH to earn Creator Rewards. [Learn more](#)

[Hide advanced options](#)

Mint duration

1 Month



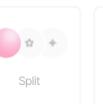
Mint first edition

Earn extra rewards by minting the first edition yourself.
Requires ETH to bring onchain. [Learn more](#)

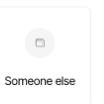
Pay out funds to...



Me



Split



Someone else

Mint start

Now

Future

Edition size

Open

Limited

Mint limit per wallet

Unlimited

Custom

Create

2024

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Create

Collection

Create collection

Price

5000 ETH

Set your price to 0 ETH to earn Creator Rewards. [Learn more](#)

[Hide advanced options](#)

Mint duration

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Pay out funds to...

Me Split Someone else

Mint start

Now Future

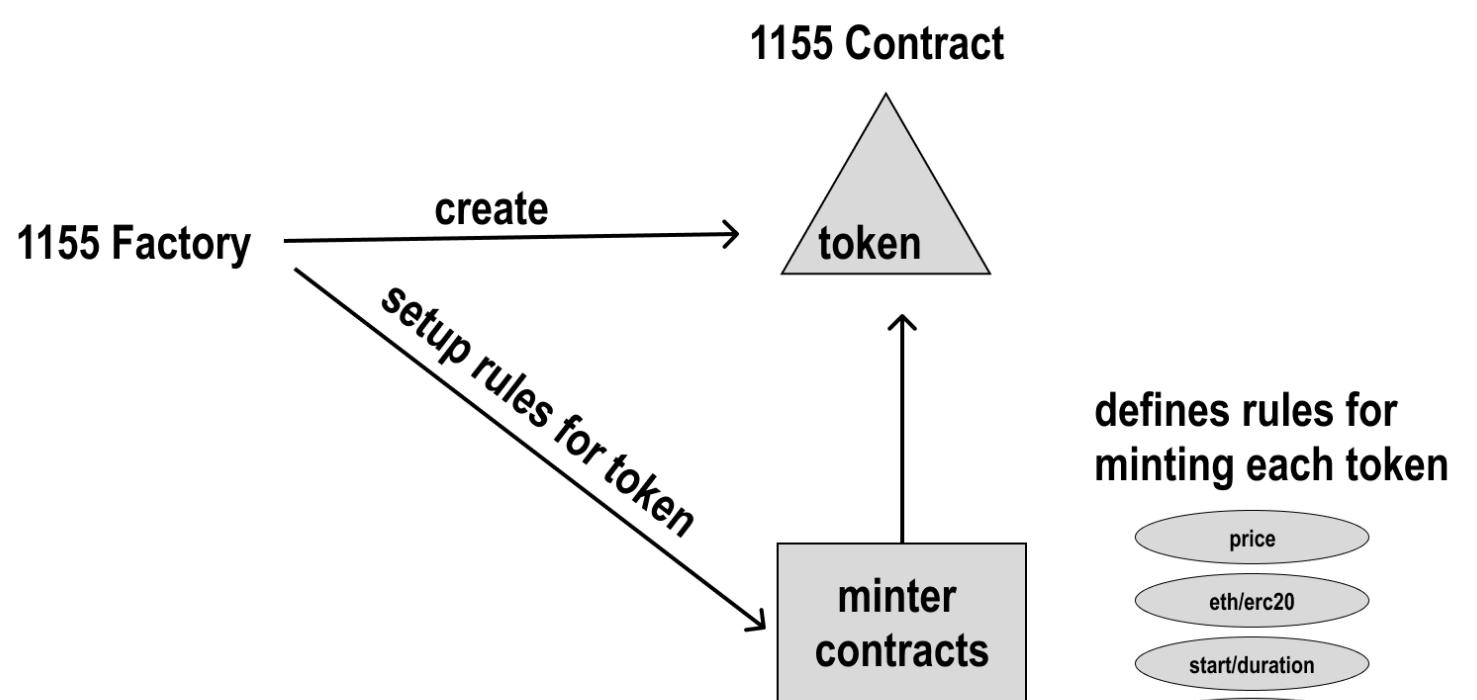
Edition size

Open Limited

Mint limit per wallet

Unlimited Custom

Create



2024

ONCHAIN SUMMER BUILDATHON



Create

Collection

Create collection

Price

5000 ETH

Set your price to 0 ETH to earn Creator Rewards. [Learn more](#)

[Hide advanced options](#)

Mint duration

1 Month

Mint first edition

Earn extra rewards by minting the first edition yourself. Requires ETH to bring onchain. [Learn more](#)

Pay out funds to...

Me Split Someone else

Mint start

Now Future

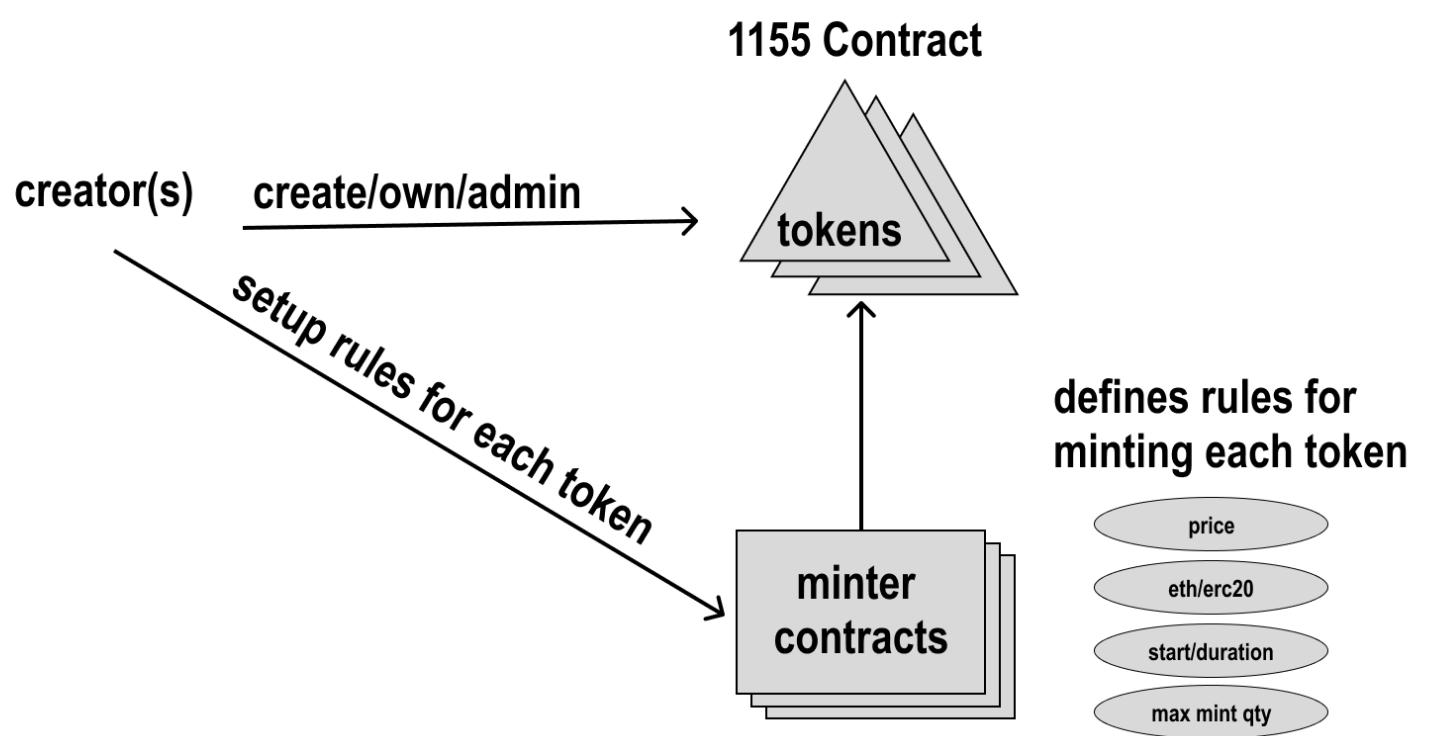
Edition size

Open Limited

Mint limit per wallet

Unlimited Custom

Create



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Create & mint on Zora contracts with the Zora Protocol SDK

```
npm install @zoralabs/protocol-sdk viem@2.x @tanstack/react-query
```



ourzora.github.io/zora-protocol

The screenshot shows a dark-themed documentation page for the Zora Protocol SDK. On the left, there's a sidebar with navigation links for 'Zora Developer Tools' (Introduction, Protocol Deployments Package, Usage), 'Protocol SDK' (Introduction, Creator Client: create 1155s gaslessly (premints), create 1155s onchain, erc-20 mints, split payouts), and 'Collector Client' (mint, getMintCosts). The main content area has a search bar at the top. It features a large heading 'Protocol SDK' with a sub-section 'Installation'. Below it, a code snippet shows the command 'pnpm add @zoralabs/protocol-sdk viem@2.x'. Further down is a section 'Usage' with a code snippet for Wagmi imports:

```
import { useChainId, usePublicClient } from 'wagmi';
import {
  createCreatorClient,
  createCollectorClient } from "@zoralabs/protocol-sdk";
```



Create + Manage + Mint

```
import { useChainId, usePublicClient } from 'wagmi';
import {
  createCreatorClient,
  createCollectorClient } from "@zoralabs/protocol-sdk";

// get the current chain id and PublicClient using wagmi
const chainId = useChainId();
const publicClient = usePublicClient();

const creatorClient = createCreatorClient({ chainId, publicClient });
creatorClient.|  
  create1155  
  createPremint  
  deletePremint  
  updatePremint

const collectorClient = createCollectorClient({ chainId, publicClient });
collectorClient.m|  
  mint
```

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Create

Collection

Create collection

Price

5000 ETH

Set your price to 0 ETH to earn Creator Rewards. [Learn more](#)

Hide advanced options

Mint duration

1 Month

Mint first edition

Earn extra rewards by minting the first edition yourself. Requires ETH to bring onchain. [Learn more](#)

Pay out funds to...

Me Split Someone else

Mint start

Now

Edition size

Open

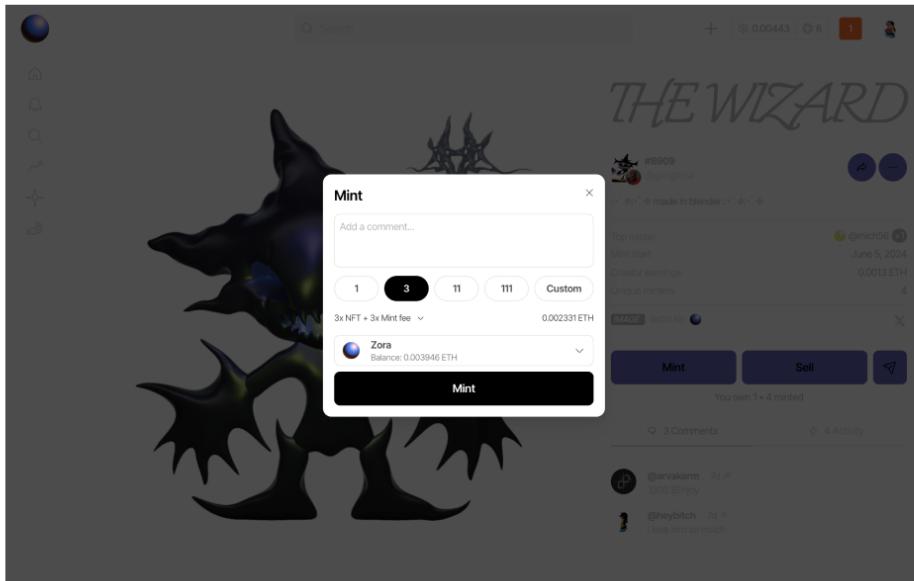
Mint limit per wallet

Unlimited

```
import {  
    useAccount,  
    useChainId,  
    usePublicClient,  
    useWriteContract,  
} from "wagmi";  
  
import { createCreatorClient } from "@zoralabs/protocol-sdk";  
  
const chainId = useChainId();  
const publicClient = usePublicClient()!;  
const { address } = useAccount();  
  
const creatorClient = createCreatorClient({ chainId, publicClient });  
  
const { parameters } = await creatorClient.create1155({  
    // by providing a contract creation config, the contract will be created  
    // if it does not exist at a deterministic address  
    contract: {  
        // contract name  
        name: "testContract",  
        // contract metadata uri  
        uri: "ipfs://DUMMY/contract.json",  
    },  
    token: {  
        tokenMetadataURI: "ipfs://DUMMY/token.json",  
    },  
    // account to execute the transaction (the creator)  
    account: address!,  
});  
  
const { writeContract } = useWriteContract();  
  
writeContract(parameters);
```

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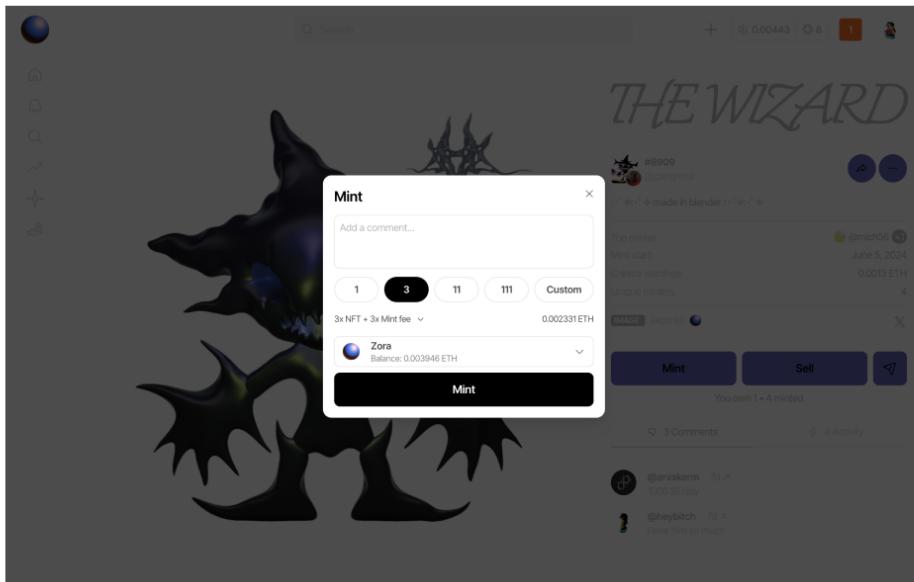
ONCHAIN SUMMER BUILDATHON



```
const mintCosts = await collectorClient.getMintCosts({  
    // 1155 contract address  
    collection: tokenAddress,  
    // 1155 token id  
    tokenId,  
    quantityMinted: 5  
    mintType: "",  
});  
1155  
721  
premint  
mintCosts.|  
  mintFee  
  totalCostEth  
  totalPurchaseCost  
  totalPurchaseCostCurrency
```

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```
const collectorClient = createCollectorClient({ chainId, publicClient });

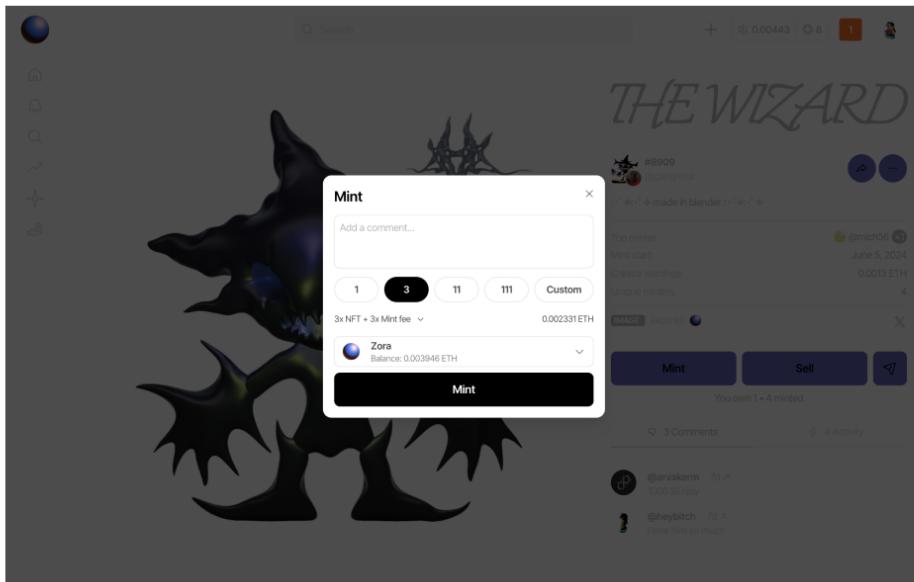
const { parameters } = await collectorClient.mint({
  // collection address to mint
  tokenContract: "0x1234567890123456789012345678901234567890",
  // quantity of tokens to mint
  quantityToMint: 5,
  // can be set to 1155, 721, or premint
  mintType: "",

});
```

The code snippet shows a function call to `collectorClient.mint` with several parameters. It includes the token contract address, a quantity of 5 tokens, and a `mintType` field which is currently empty. Three options are listed below the code: "1155", "721", and "premint".

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```
import { createCollectorClient } from "@zoralabs/protocol-sdk";
import { collection, uid } from "./createPremint";
import { useChainId, usePublicClient, useWriteContract } from "wagmi";

const chainId = useChainId();
const publicClient = usePublicClient()!;

// initialize the collect sdk with the chain configuration
const collectorClient = createCollectorClient({ chainId, publicClient });

// get parameters to mint a premint, which can be used to simulate and submit the transaction
const { parameters } = await collectorClient.mint({
  // the deterministic premint collection address
  tokenContract: collection,
  // type of item to mint
  mintType: "premint",
  // the uid of the premint to mint
  uid,
  // how many tokens to mint
  quantityToMint: 3,
  // Comment to attach to the mint
  mintComment: "Mint comment",
  // the account to execute the transaction
  minterAccount: "0xf69fEc6d858c77e969509843852178bd24CAd2B6",
});

const { writeContract } = useWriteContract();

writeContract(parameters);
```

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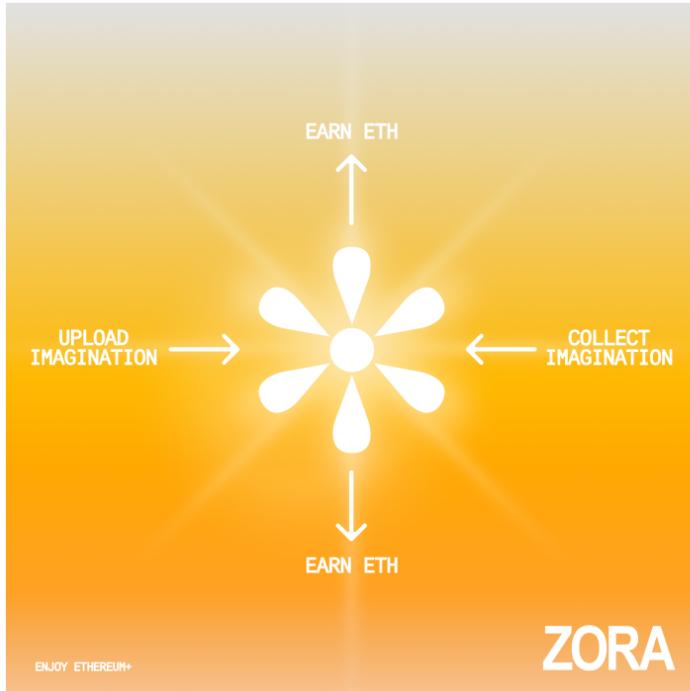
ONCHAIN SUMMER BUILDATHON

Crypto Exchange™
Gas? Wallet
Send Extension
Funds! Waiting



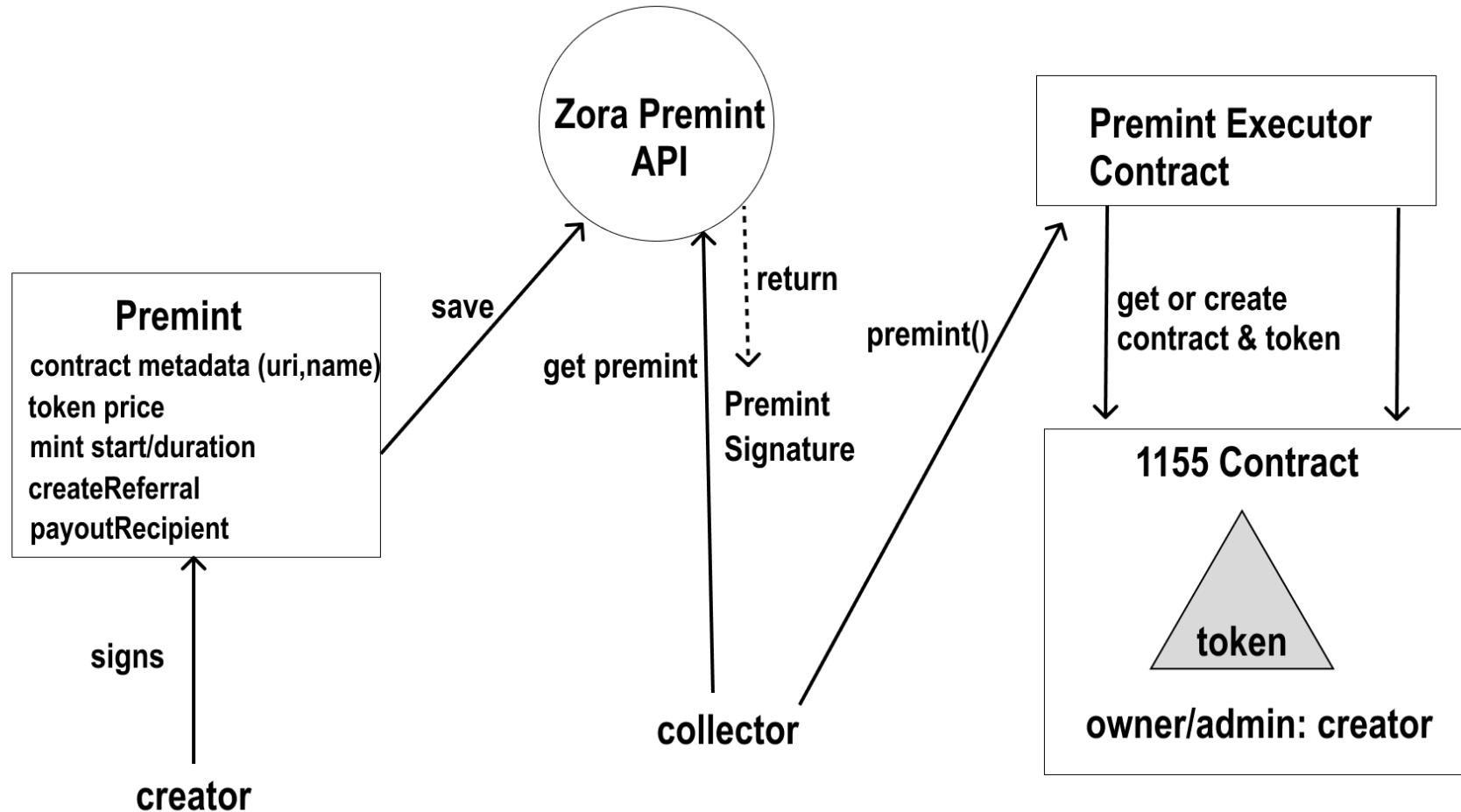
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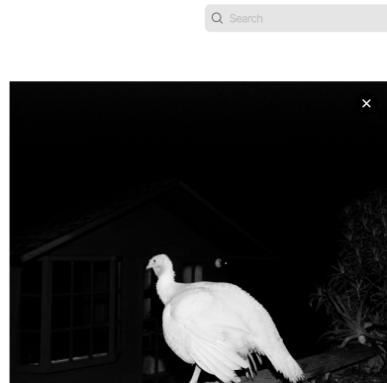
PREMINT
create for free by just signing
a message.
no eth required.

collectors pay gas fees
to bring mints onchain and
earn rewards.



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Post

Collection

+ Add more

pictures

Title

turkey

[View advanced options](#)

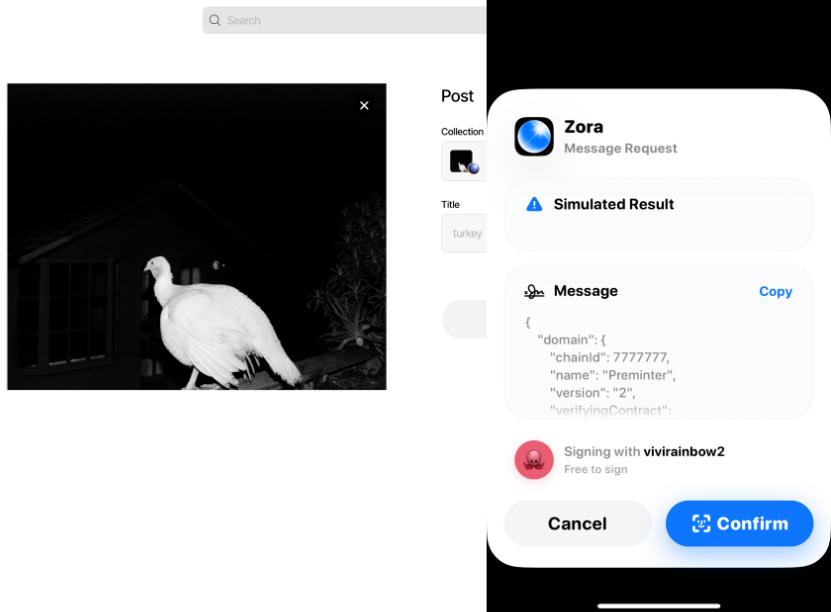
Signature 1 of 1

```
const creatorClient = createCreatorClient({ chainId, publicClient });

await creatorClient.createPremint({
  // info of the 1155 contract to create.
  contract: {
    // the account that will be the admin of the collection.
    // Must match the signer of the premint.
    contractAdmin: creatorAddress!,
    contractName: "Testing Contract",
    contractURI:
      "ipfs://bafkreiainxen4b4wz4ubylvbhons6rembxdet4a262nf2lziqlqv7au3e",
  },
  // token info of token to create
  token: {
    tokenURI:
      "ipfs://bafkreice23maski3x52tsfqgxstx3kbiifnt5jotg3a5ynvve53c4soi2u",
    payoutRecipient: creatorAddress!,
  },
});
```

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ONCHAIN SUMMER BUILDATHON



```
import { useSignTypedData } from "wagmi";

const {
  // the data that must be signed
  typedDataDefinition,
  // once the signature has been obtained,
  // call submit() with the signature to submit it and the premint
  // to the Zora Premint API
  submit
} = await creatorClient.createPremint({
  // info of the 1155 contract to create.
  contract: {
    // the account that will be the admin of the collection.
    // Must match the signer of the premint.
    contractAdmin: creatorAddress!,
    contractName: "Testing Contract",
    contractURI:
      "ipfs://bafkreiainxen4b4wz4ubylvhons6rembxdet4a262nf2lziclqv7au3e",
  },
  // token info of token to create
  token: {
    tokenURI:
      "ipfs://bafkreice23maski3x52tsfqgxstx3kbiifnt5jotg3a5ynvve53c4soi2u",
    payoutRecipient: creatorAddress!,
  },
});
// get signTypedData function to sign the message
const { signTypedData, data: signature } = useSignTypedData();
// once user has signed, submit the premint and signature
// to the Zora Premint API
if (signature) {
  submit({
    signature: signature,
  });
}
// clicking this button will prompt the user to sign the typed data
<button onClick={() => signTypedData(typedDataDefinition)}>Create</button>
```



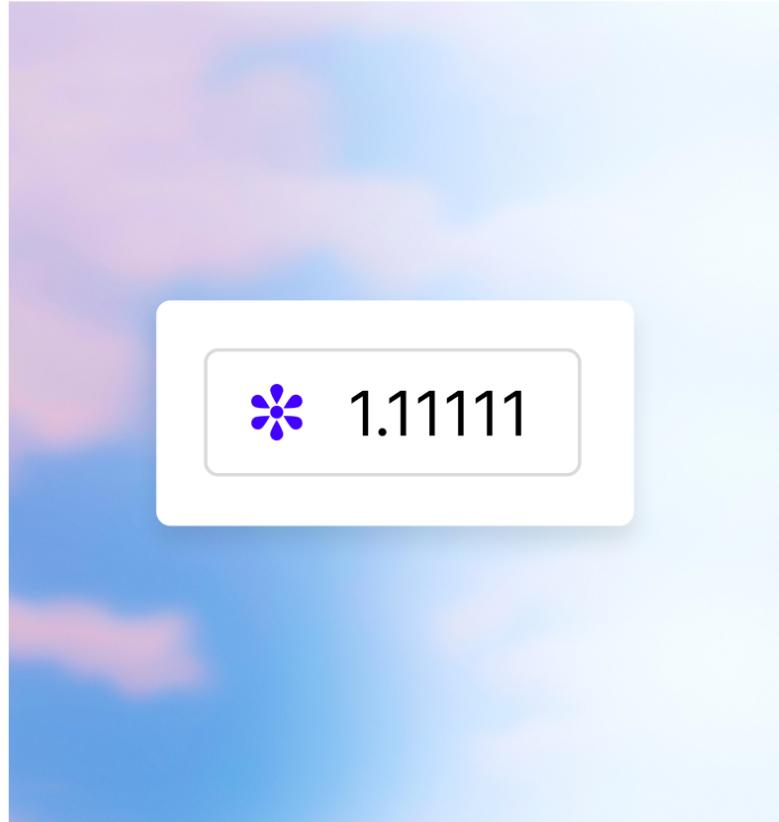
One Premint => One Future Onchain Token

```
const {  
  // the premint that is to be created  
  premintConfig,  
  // deterministic collection address of the premint  
  collectionAddress,  
} = await creatorClient.createPremint({ ...  
});  
const uid = premintConfig.uid;
```

- **Deterministic Contract Address** based on contract settings (admins, metadata)
- **Multiple Premints can be created against a deterministic address**
- **Each Premint has a uid (unique id)** this is not the same as the token id when onchain
- **Premints against same collection can be brought onchain in any order**
- **Smart wallet based signatures are supported**

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PROTOCOL REWARDS

MADE POSSIBLE BY OUR MINT FEE
WHICH IS DISTRIBUTED AUTOMATICALLY EACH
TIME SOMETHING IS MINTED

REWARDS ARE ALL ENCODED INTO THE
CONTRACTS AND ARE ENTIRELY ONCHAIN

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Creator rewards with a Zora mint:

1 mint = 0.000333 eth

10 mints = 0.00333 eth

100 mints = 0.0333 eth

1,000 mints = 0.333 eth

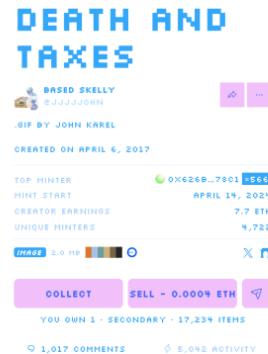
17,234 mints = 7.651 eth

...

 John Karel ✅ @jjjjjjjjjohn · Apr 14

loving @ourZORA, didn't even realize i'd earn eth rewards for the free mint (assumed i'd only get paid in tips). and you can customize the mint page?! A+ will mint there again :)

zora.co/collect/base:0...



CREATOR REWARD

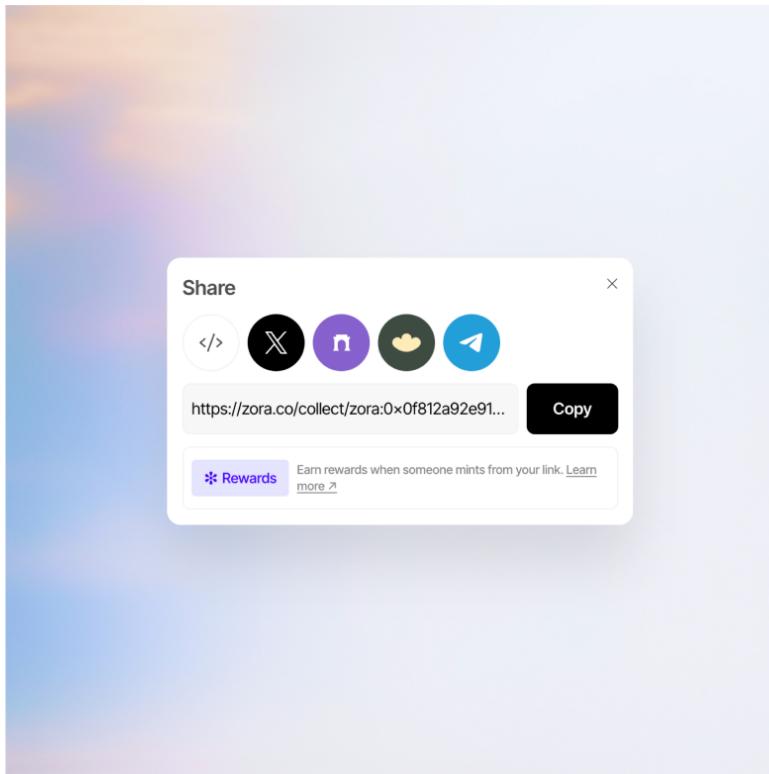
0.000333 ETH PER MINT

CREATORS DO NOT NEED TO THINK ABOUT PRICING MODELS, JUST MINT AND EARN ETH

CREATORS EARN A REWARD WHEN CREATING NON PRICED MINTS

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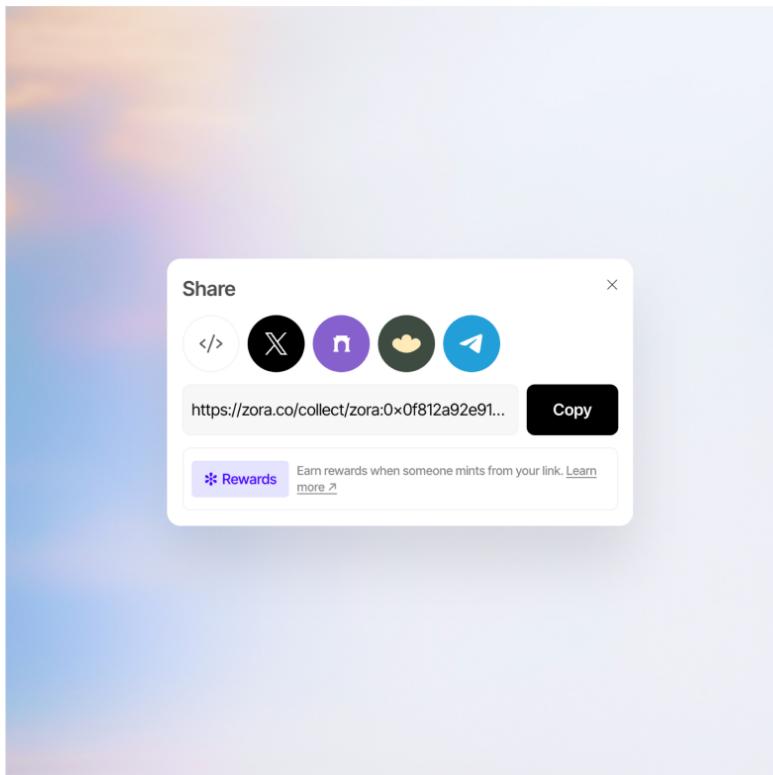
MINT REFERRAL REWARD

0.000111 ETH

SURFACE MINTS TO COLLECTORS AND
EARN ETH WHEN THEY COLLECT.

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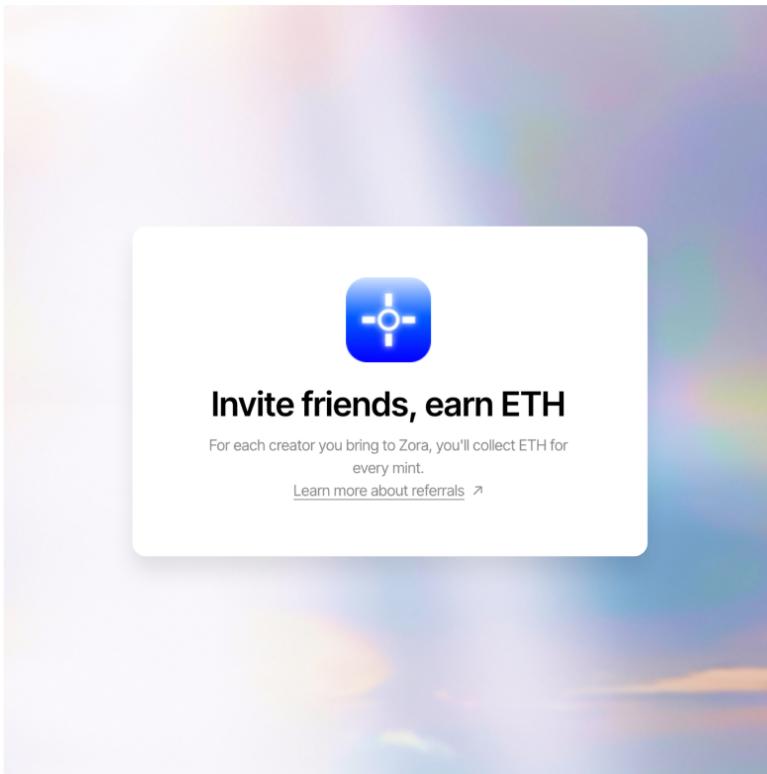
ONCHAIN SUMMER BUILDATHON



```
const parameters = await collectorClient.mint({
  tokenContract: collection,
  mintType: "premint",
  uid,
  quantityToMint: 3,
  minterAccount: address!,
  // mintReferral address will get mint referral reward
  mintReferral: "0x64B585fabf03B932D637B15112cDa02C77b5cef9",
});
```

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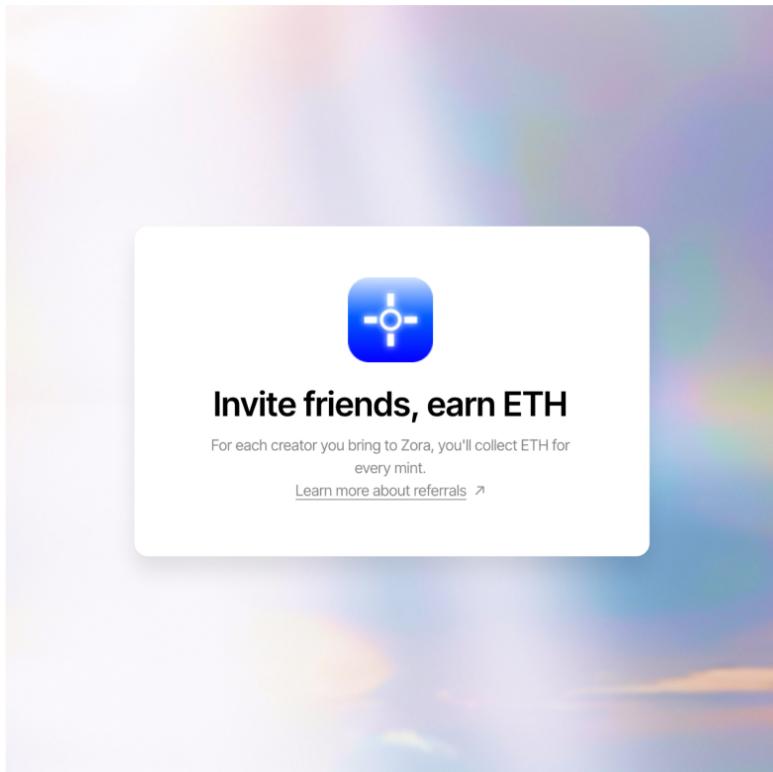


CREATE REFERRAL REWARD

ENCOURAGE CREATORS TO MINT ON
ZORA AND EARN REWARDS WHEN
THEIR MINTS ARE COLLECTED.

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```
const creatorClient = createCreatorClient({ chainId, publicClient });

await creatorClient.createPremint({
  // collection info of contract to create.
  contract: {
    contractAdmin: creatorAccount!,
    contractName: "Testing Contract",
    contractURI:
      "ipfs://bafkreiainxen4b4wz4ubylvhons6rembxdet4a262nf2lzcilqv7au3e",
  },
  token: {
    tokenURI:
      "ipfs://bafkreice23maski3x52tsfqgxstx3kbiifnt5jotg3a5ynvve53c4soi2u",
    payoutRecipient: creatorAccount!,
    // create referral address will get the create referral reward
    // when the token is minted.
    createReferral: "0x5843c8d6007813de3D2313fC55F2Fa1Cbcb394A6",
  },
});
```