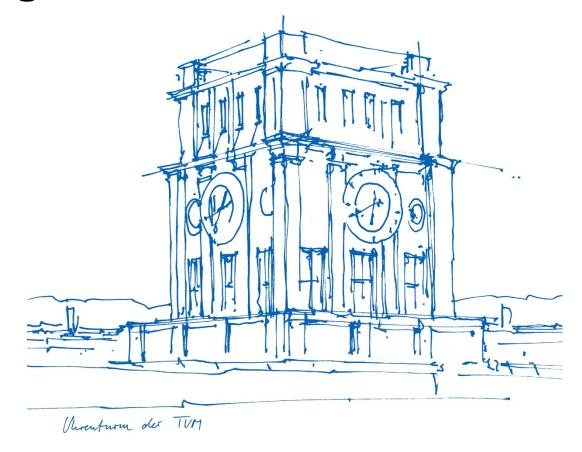


**Decentralized Autonomous Organizations** 

and Organizational Approaches

Christian Ziegler, M.Sc. Blockchain Salon, 12.05.2023





1 What is a DAO

2 Industry examples

#### What are DAOs?

#### Decentralized



Based on a public Blockchain



Decentralized on infrastructure level



Decentralized on application level

#### **Autonomous**



Autonomous Decision making



Autonomous execution



Has Notary



Predetermined voting rules



Transparency



#### **Organizations**



Updates on code through democratic voting



Smart contract code at the core



Code is open source



Storage of value



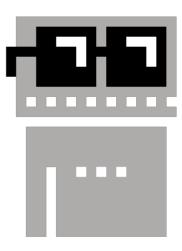
Transaction of value



Rewards externals for work

## **Industry Examples of DAOs**







## **Industry Examples of DAOs**

## **MakerDAO**





- has decentralized governance
- Governs Dai, a decentralized stablecoin.



#### **MakerDAO**







Based on a public Blockchain



Decentralized on infrastructure level



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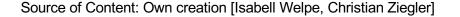
Storage of value



Transaction of value

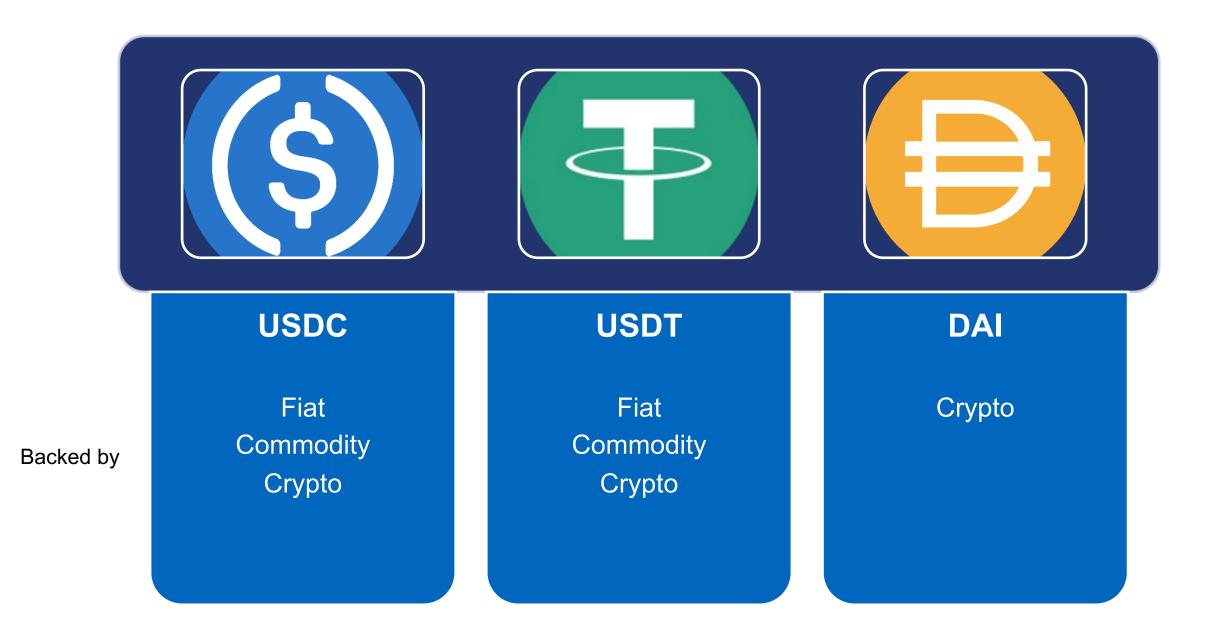


Rewards externals for work





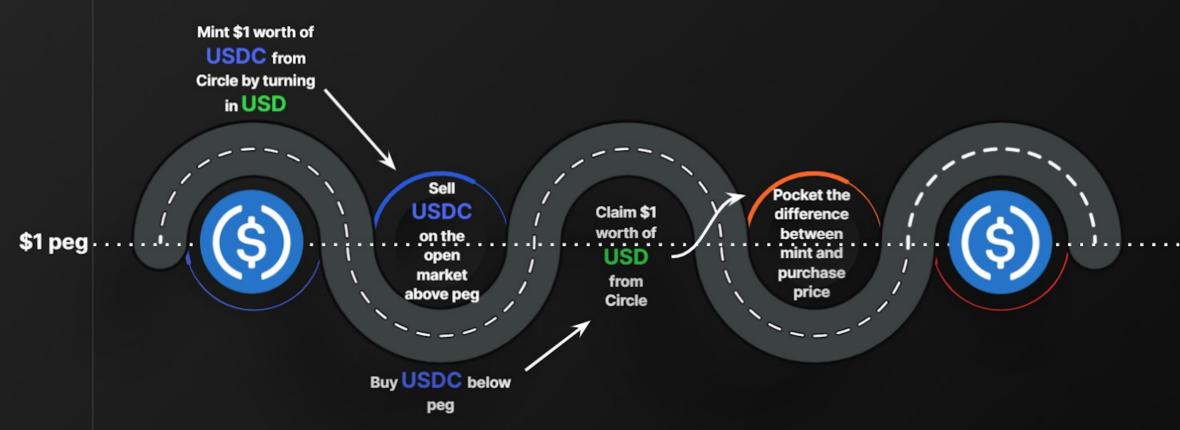
**Recap: Stablecoins** 



# Arbitrage behavior around USDC







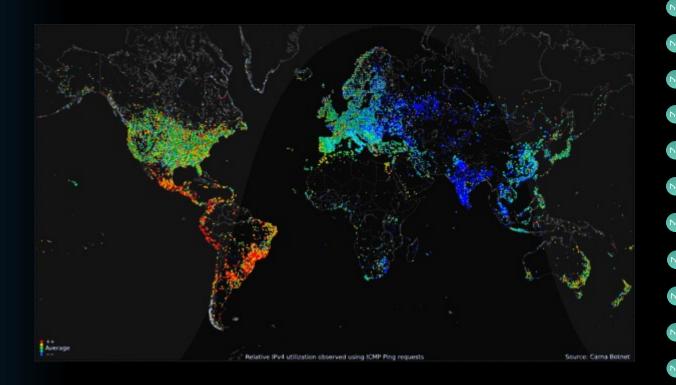
## Recap: Stablecoins - DAI



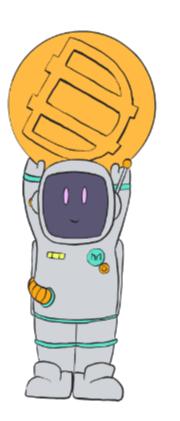
\* Except when it's not

## **Maker Protocol**

- Built on Ethereum
- Anyone with a crypto wallet can generate DAI and use the system
- Maker is permissionless by design



## **Vaults - Generating DAI**



A Vault Is a Tool That Lets the Owner Deposit Collateral and Generate Dai

## **Configuring the Vault**

- **Deposit** of 20 Eth (Assume 1 Eth = 1732\$ | total: 34646\$)
- Liquidation is at 0\$ since no DAI is borrowed
- Withdrawal until 20 ETH
- Generation of 19,248.23 DAI with this Vault
- Collateral is 180%
  - For every 1 DAI you borrow you need 1.8 DAI in Securities
  - If you fail to hold this margin, you get liquidated

Vault changes	
Collateral Locked	0.00 ETH $\rightarrow$ 20.00 ETH
Collateralization Ratio	0.00% → 0.00%
Liquidation Price	\$0.00 → \$0.00
Vault Dai Debt	0.00 DAI $\rightarrow$ 0.00 DAI
Available to Withdraw	0.00 ETH $\rightarrow$ 20.00 ETH
Available to Generate	0.00 DAI → 19,248.23 DAI
Max gas fee ?	n/a
Stop-Loss Information	
Stop-Loss Collateral Ratio	180.00%
Dynamic Stop-Loss	\$0.00

## Liquidations

Automated Maker Protocol auctions intended to ensure there is always more collateral covering all outstanding debt

A liquidation is triggered when a vault becomes undercollateralized.

Flip - Undercollateralized Vault auctions

**Flop** - Sell MKR to cover system bad debt / recapitalize system

**Flap** - System surplus auctions. Buy MKR and burn with surplus Dai.



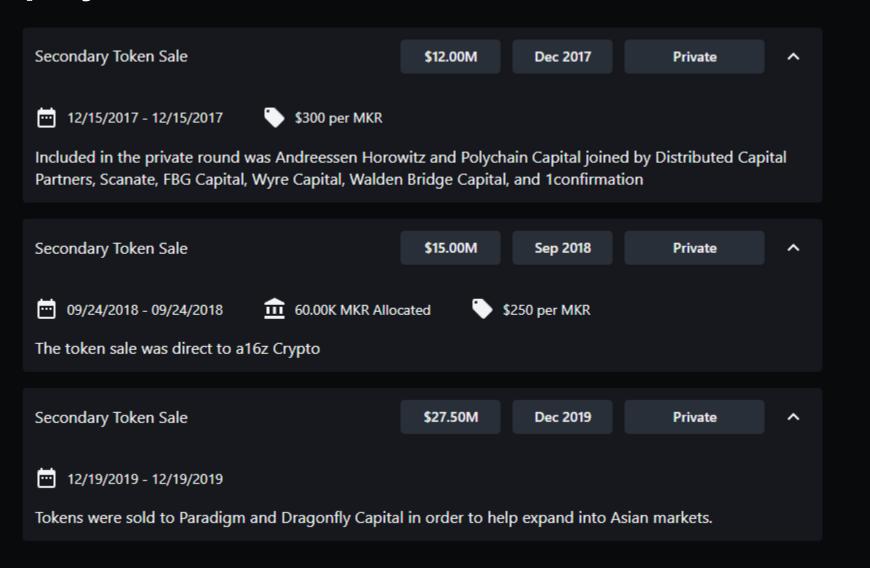
## **Keeping DAI Stable**



PSM: Swap collateral directly for DAI at a fixed rate

DSR: Earn interest on locked DAI

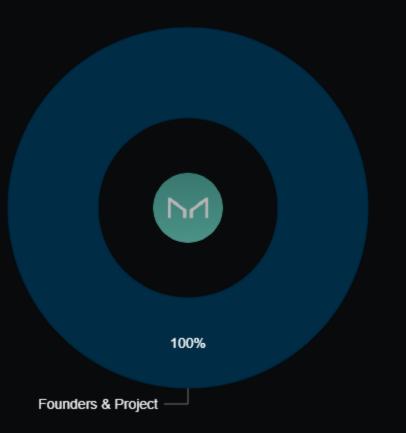
## **How MKR plays into this – Initial Sales**



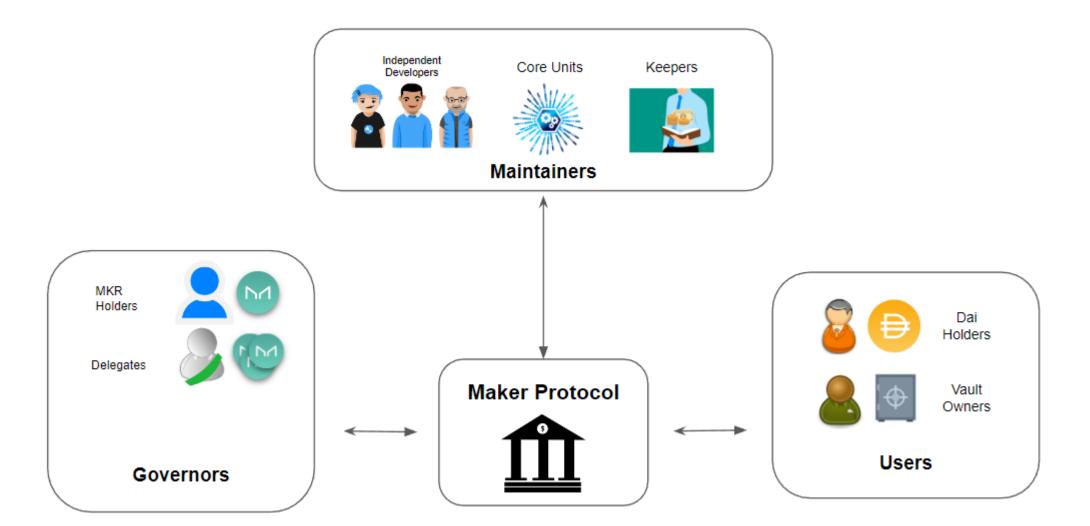
## **How MKR plays into this - Tokenomics**

Launch Style: Centralized Distribution Distribution Date: 11/25/2017

Initial Supply: 1.000.000



## **MakerDAO Governance**



## **MKR Tokenomics**

Good governance by MKR holders is rewarded with:

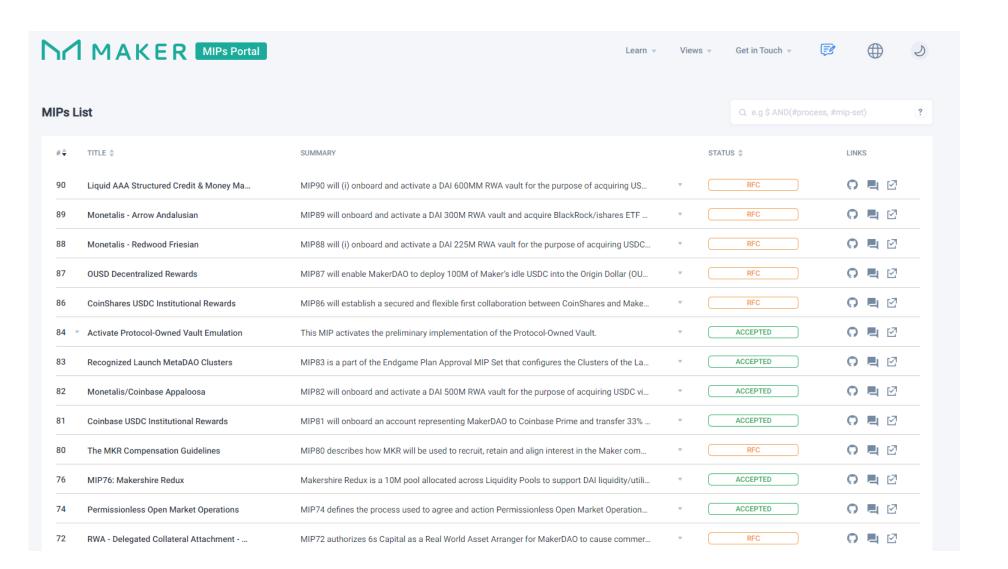
- MKR tokens buy back from surplus buffer
- MKR token price increase

Surplus achieved with...

- Stability Fee
- Liquidation Penalties
- Auctions

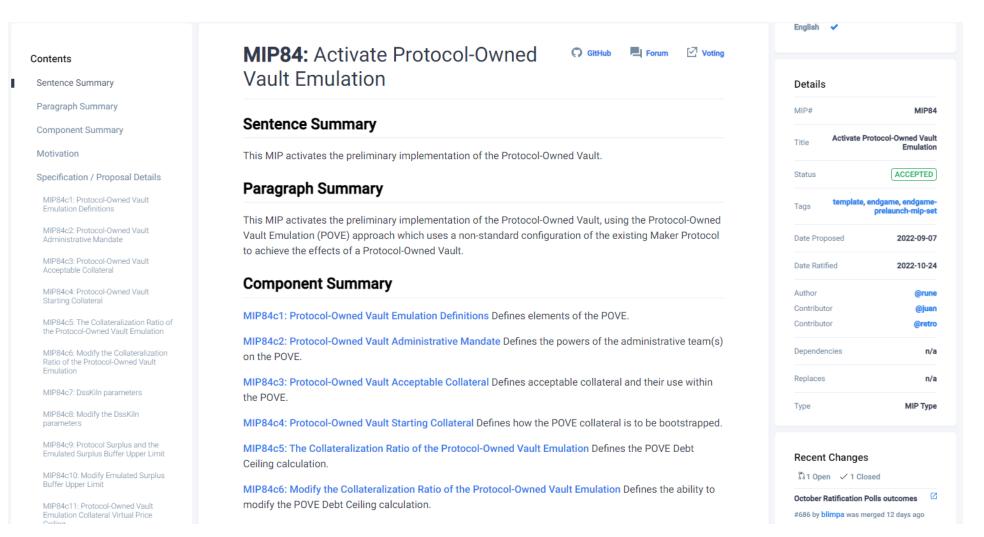


#### **MIPs Portal**



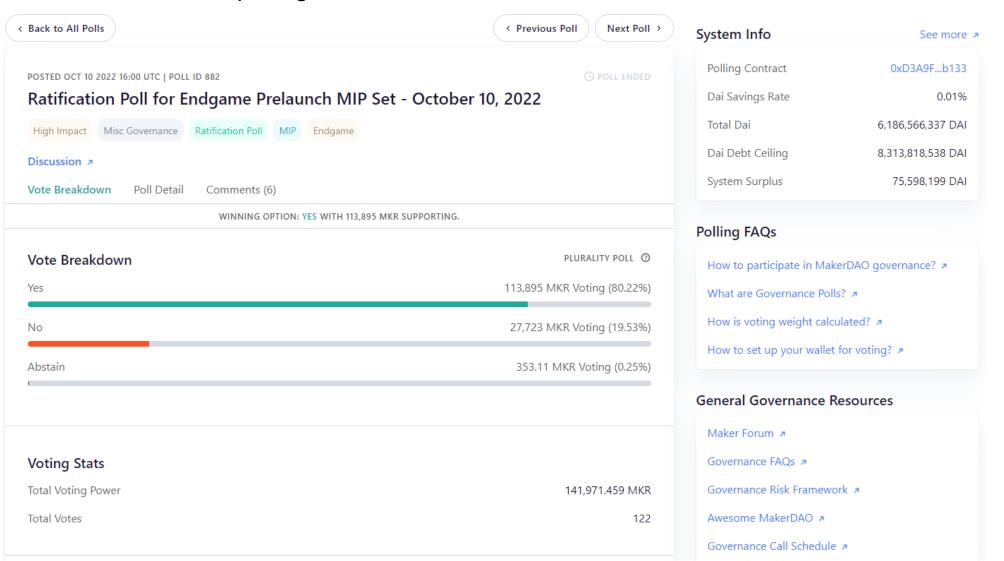
## **Check a Proposal yourself!**

https://mips.makerdao.com/mips/details/MIP84#MIP84c12



## **Voting and Ratification**

https://vote.makerdao.com/polling/QmTmS5Nf



## **Voting by Address**

#### https://vote.makerdao.com/polling/QmTmS5Nf

Voting By Address			
ADDRESS	OPTION	VOTE % ~	MKR ~
Shadow Delegate	Yes	27.3%	38,758 MKR
Flip Flop Flap Delegate LLC	Yes	11.7%	16,577 MKR
0x05e796019	No	10.7%	15,160 MKR
<b>5</b> StableNode	Yes	9.2%	13,084 MKR
schuppi	Yes	8.1%	11,482 MKR
Flipside Governance	Yes	6.4%	9,017 MKR
Feedblack Loops LLC	Yes	5.8%	8,268 MKR
Penn Blockchain	Yes	5.3%	7,489 MKR
mhonkasalo & teemulau	Yes	4.7%	6,640 MKR
Hasu	No	4.3%	6,103 MKR
ACREinvest	No	2.2%	3,100 MKR
Blockchain@Columbia	No	1.3%	1,813 MKR
ChicagoDAO	Yes	1.1%	1,500 MKR



38758 \* 903 = 35M€

## **Ending it**

https://vote.makerdao.com/esmodule



#### **Emergency Shutdown Module**

The ESM allows MKR holders to shutdown the system without a central authority. Once 150,000 MKR are entered into the ESM, emergency shutdown can be executed. Read the documentation here.

#### Total MKR Burned

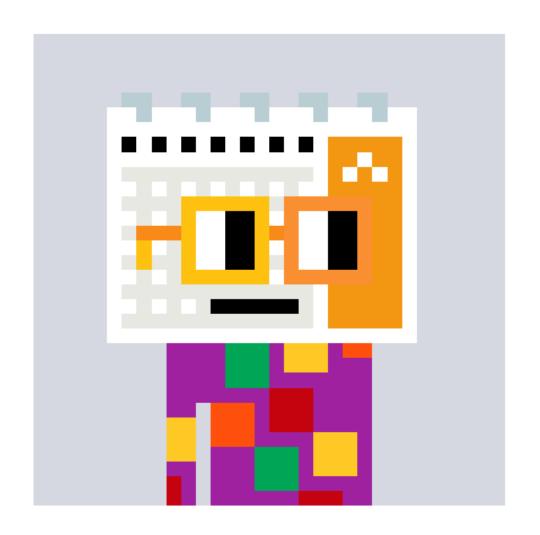
0.00052 of 150,000 MKR

No Account Connected

You have no MKR in the ESM

#### **Nouns**

## ONE NOUN, EVERY DAY, FOREVER.



100

#### **NounsDAO**









Based on a public Blockchain



Decentralized on infrastructure level



Decentralized on application level





Autonomous Decision making



Autonomous execution



Has Notary





Predetermined voting rules



Transparency





Updates on code through democratic voting



Smart contract code at the core



Code is open source



Storage of value



Transaction of value



Rewards externals for work



## **Nouns Auction**



← → November 05, 2022

## **Noun 501**

Current bid Auction ends in

Ξ 29.00

2h 57m 18s

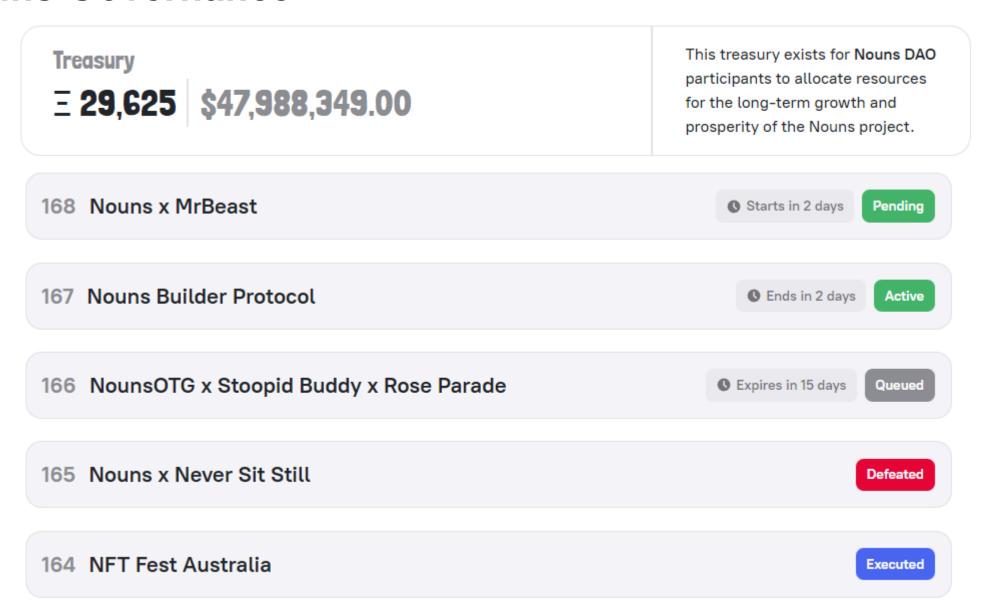
-

Help mint the next Noun

Ξ 29.58 or more	Place bid
genbird.eth	∃ 29.00
<b>●</b> ID-ID¬.□□-O	∃ 0.69 🖸
justtheflamingo.eth	Ξ 0.06 🗗

View all bids

#### **Nouns Governance**



## **Preliminary Discussions**

https://discourse.nouns.wtf/

Topic		Replies	Views	Activity
■ ▼ Welcome to Discourse  Hello and welcome to the Nouns Discourse! Here you'll find longer form discussions and proposals from around the Nouns ecosystem. The NounsDAO will use this place to discuss proposals, proposal members discuss drafts and read more	<b>6 9</b>	1	3.1k	Sep '21
NSFW: DinoNouns   Interactive On-chain NFT  Small Grants	<b>₽</b> • N	8	474	1h
Explorer Grants Trial - 2nd Draft		0	68	19h
Proposal: Pod Production  NounsDAO Proposals	a 🥞 😩 👑	4	66	20h
NSFW: Nouns Archive Center  Small Grants	<b>(9)</b>	13	589	1d
Looking at helping Obasi John a delegate attend COP27, also to advise soft and bridge solutions (EEPI, Moletech and Carboncleansystems.com as well as End electro-agriculture and brine shrimp to sequester carbon ,increase productivity and provide feedstock  NounsDAO	<b>C 9</b>	4	33	1d
Small Grants: NounsDAO Chinese  Small Grants	<b>?</b> • • • • • • • • • • • • • • • • • • •	44	731	1d
NounsDAO x Meowki	8	0	16	1d

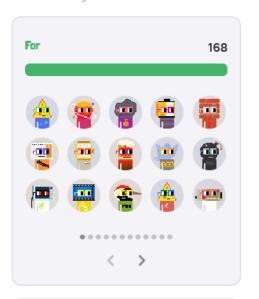
## **Nouns Voting**



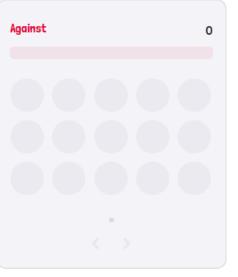
#### **Nouns Fair @ ETHSanFrancisco**

Proposed by noun22.- at 0xb95ac

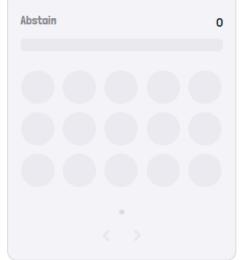
Switch to delegate view











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Snapshot Taken at block 15797966

#### Other notable DAOs



#### Uniswap

- Governs the Uniswap DEX
- Distributes Grants



#### **EduDAO**

- Distributes Funds to Universities
- Connects University Groups



#### **Aave**

- Governs the Aave Lending Protocol
- Distributes Grants



#### GenesysGo

- Host Solana RPC Infrastructure
- Is an Infrastructure DAO



#### **Gitcoin**

- Community for Builders
- Distributes Grants



#### **Friends with Benefits**

- Exclusive Community of Individuals
- Entry requires application and a token stake

#### **PretzelDAO**







#### **PretzelDAO**



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