

# Incendia

Anonymous On-Chain Auctions with ZK Passport registration

ETHGlobal Buenos Aires



# Overview

## Private Auction

- Private bids
- Private Identity
- On chain settlement (no third party)



# Registration



## ZK Passport registration

- keeping users identity private
- Inforce +18 age for bidding
- Prevent double bidding => address is bind to the identity



# How?

## Proof of Burn 🔥

- Generate a unspendable address

Burn Address =  $\text{hash}(\text{Ceremony data}, \text{Bid}, \dots)$

- Burn negligible amount Eth to that Address 🔥
- Generate and submit the burn proof
- Wait for the end of submission deadline ...
- on chain settlement



# Demo



# future work

- Noir smart contracts
- Deploy on Aztec chain  
(encrypted bids)
- Add multiple auction scenarios
- Optimise the proof for smartphones



# TEAM



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Thank you :)

