

# Monotone

A dex to create backed tokens  
with a monotonic swap function  
for undumpable liquidity pools

With gas rebate gamification!



# How it works

Define a **NUMERAIRE** (usually a stablecoin)

Define a **TOKEN**

**B** balance of numeraire in the pool

**S<sub>t</sub>** total token supply

**S** balance of token in the pool

The bid price is given by

$$\alpha_{\text{mkt}}(n) = \frac{B + n}{S_T - S}$$

# Use Cases

Using this dex it is possible to create a token whose price is always stable or increasing, regardless of people swapping it back for the numeraire

An example pool: LINK (token) and USDC (numeraire)

**day 0 - pool creation**

the pool contains 100 LINK and  
100 USDC - 1 LINK = 1 USDC

**day 10 - active pool**

the pool contains 100 LINK and  
1000 USDC - 1 LINK = 10 USDC

**day 100 - everyone but 1 sells**

the pool contains 1 LINK and 100 USDC - still 1 LINK = 10 USDC

# Gas Rebates

By swapping, **users** earn points and **can redeem gas (ETH) rebates from Mode's SFS register.**

The contract employs a monolithic architecture, pretty much like Uniswap V4, where pools are not separate contracts. In this way, the approval risk is minimal and **users save approximately 60% in gas costs** compared to pool-based dexes.