Hydra Launchpad

www.hydrapad.com

Overview

A Presale Launchpad is a platform that facilitates early-stage token sales for blockchain projects. It serves as a gateway for investors and users to participate in the presale (early fundraising) of tokens before they are listed on public exchanges. In simpler terms, a presale launchpad allows investors to buy tokens at a lower price during the early phases of a project's development, giving them an opportunity to benefit if the project succeeds.

Key Features of a Presale Launchpad

1. Early Access to Tokens: A presale launchpad provides investors early access to tokens before they are made available to the general public, typically through an initial token offering (ICO, IDO, or similar). This often comes with the advantage of buying at a lower price compared to the public listing.

2. Platform for Project Creators: For blockchain projects, a presale launchpad is a place where they can raise funds by offering their tokens to investors ahead of a full market launch. It also helps them create awareness and generate community support before the official launch.

3. Smart Contract Integration: Most presale launchpads work through smart contracts on the blockchain. These contracts handle the token distribution, fundraising process, and sometimes vesting schedules to ensure fairness and security for both investors and project creators.

4. Security and Trust: Launchpads usually conduct due diligence on projects to ensure that they are not fraudulent, and that the project team is reliable. This helps reduce the risk for investors, as they can trust that the presale is legitimate and the project is being properly vetted.

How Does a Presale Launchpad Work?

1. Project Listing:

- A blockchain project (a startup or team) submits their presale to be listed on the launchpad. This submission typically involves sharing the project's whitepaper, tokenomics, goals, and roadmap.
- The launchpad evaluates the project for legitimacy, potential, and compliance with its standards.

2. Presale Details:

- The project sets specific terms for the presale, such as the start and end dates, the total number of tokens to be sold, and the pricing.
- The presale could involve a fixed price or a bonding curve mechanism (where the price increases as more tokens are sold).

3. Investor Participation:

- Investors interested in participating can reserve tokens during the presale phase by contributing funds (usually in ETH, USDT, or other cryptocurrencies).
- Investors can see the details of the presale, such as the price per token, total tokens available, and project roadmap.

4. Token Allocation:

- Once the presale ends, tokens are distributed to investors according to the amount they contributed. This happens automatically via a smart contract.
- Some launchpads may offer vesting schedules, where tokens are unlocked gradually over time instead of being released all at once, which helps ensure that early investors don't dump tokens immediately.

How does the Hydra differ from other Launchpad?

Hydra Launchpad is integrated with top tier security features with Bonded Curve Presale Contract with live trading for users & investors. A Bonded Curve Presale Launchpad differs from a Normal Presale Launchpad primarily in how the token price behaves during the presale and the mechanics of token distribution. While both types of launchpads help raise funds for blockchain projects by allowing early investors to buy tokens before they are listed publicly, their key difference lies in the pricing model, investors benefits and incentive structure.

What is a Bonded Curve?

A bonding curve is a mathematical model that determines the price of a token based on the supply of that token.

- As more tokens are bought during the presale, the price of each token increases.
- The price starts at a low point and gradually increases as more tokens are purchased by investors.

This means that the earlier you buy, the cheaper the tokens are (as the price increases with every purchase). The curve is designed to create a

fairer pricing mechanism that rewards early supporters while ensuring that later buyers pay a price that reflects the demand for the token.

The Bonded Curve Presale contract offers an innovative solution for token sales, creating a fairer and more transparent way for projects to raise capital and for users and investors to participate. By utilizing a dynamic pricing model based on a bonding curve, this contract addresses several key challenges in fundraising and token distribution within the Web3 ecosystem. Below, we explore how this contract benefits users, investors, and the broader Web3 ecosystem.

1. Benefits to Users

Fair Token Pricing

- Dynamic Pricing Mechanism: The primary feature of the Bonded Curve Presale is the dynamic pricing based on a bonding curve. As more ETH is contributed, the price of tokens increases according to the formula:
    - Price = (PRICE_CHANGE_SLOPE * supply) / DECIMALS + BASE_PRICE
    - Early users benefit from purchasing tokens at a lower price, while later contributors pay a higher price, which encourages early participation.
- Encourages Early Adoption: Users who participate early get tokens at a better price, rewarding them for their support in the early stages of the project. This incentivizes early engagement and community building around new projects.

Transparency and Trustless Interaction

- Smart Contract Security: All transactions are executed on-chain, ensuring transparency and reducing the reliance on intermediaries. Users can independently verify the token supply, price curve, and all financial activities, which builds trust in the presale process.
- No Middlemen: The contract automates the presale process, eliminating the need for intermediaries or third parties. Users interact directly with the smart contract, ensuring a decentralized and trustless environment.

Exit Strategy and Refunds

- Fail-Safe Mechanism: If the presale is unsuccessful (e.g., the fundraising target isn't met), users can exit the presale and get back their ETH in proportion to their token holdings. This gives users a safety net, reducing the risk of loss if the project doesn't meet its goals.
- Exit Proportional to Contribution: In case of a failed presale, the refund mechanism ensures that users are fairly compensated based on how much they contributed, without being unfairly penalized.

Incentive for Active Participation

- Contribute to Project Success: Users' participation is rewarded not only by acquiring tokens at a dynamic price but also by potentially benefiting from a successful project launch. If the presale is successful, they will hold tokens in the project and benefit from the liquidity pool and token's market performance.
- Fair Token Distribution: The bonded curve mechanism ensures that token distribution is based on the principles of supply and demand, preventing any early "whale" investors from monopolizing the token supply.

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2. Benefits to Investors

Risk Mitigation

- Refund Option in Case of Failure: For investors, one of the most significant benefits is the ability to exit the presale and reclaim their invested ETH if the presale fails. By offering refunds based on the proportion of tokens held, the system mitigates the risk of permanent loss for investors.
- Dynamic Pricing as a Hedge: The price of tokens increases over time, ensuring that the earlier investors get tokens at a more favorable price. This means early investors are more likely to see a profit once the project matures, especially if it is successful.

Fair and Transparent Investment Process

- Automated and Transparent Pricing: The contract's use of a bonding curve ensures that all investors pay a fair market-driven price for tokens. The price adjusts dynamically, reducing the possibility of manipulation by large investors and ensuring a level playing field for everyone involved.
- No Front-running: The contract operates in a way that discourages front-running by large players, as the price is automatically adjusted based on supply. This prevents major investors from taking advantage of the system by timing their investments.

Liquidity Opportunities

- Liquidity Pool Creation: Upon successful completion of the presale, the contract creates a liquidity pool (on platforms like Uniswap or Balancer) for the token. This provides investors with an easy way to trade the token post-presale and offers liquidity to the market.
- Market Value and Trading: Investors can potentially sell or trade the tokens they acquire during the presale on decentralized exchanges, benefiting from any price appreciation that occurs after the presale concludes.

Early Access to Promising Projects

- Investment in New Projects: Investors have the opportunity to invest early in promising new projects before they are listed on major exchanges. This early access allows them to capitalize on any future growth or success of the project.
- Price Advantage: As mentioned, the dynamic price ensures that those who invest early benefit from a lower price, giving them an edge when the token eventually hits the market and gains liquidity.

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3. Benefits to the Web3 Ecosystem

Encouraging Decentralized Fundraising

- Decentralized Capital Raising: The Bonded Curve Presale contract is a trustless and decentralized way to raise funds. It eliminates the need for centralized authorities or intermediaries, empowering project creators to directly raise funds from their community.
- Global Accessibility: Anyone with an internet connection can participate in these presales, providing global access to Web3 fundraising. This democratizes the ability for users to support and invest in projects regardless of geographic location.

Fairer Token Distribution and Market Efficiency

- Eliminating Large-Scale Manipulation: The bonding curve pricing model ensures that no single participant can corner the token supply at a disproportionately low price. This prevents whales from dominating the presale and promotes a fairer, more efficient token distribution.
- Healthy Market Dynamics: By dynamically adjusting the token price, the contract creates a balanced supply-and-demand relationship, which can help stabilize prices and reduce volatility once the token is listed on exchanges.

Sustainable Tokenomics

- Value-Based Pricing: The price of tokens follows a predictable curve, encouraging more responsible tokenomics. By ensuring that the token price increases as more tokens are bought, the system supports long-term sustainability, with early contributors being rewarded and later buyers acknowledging the increased price.
- Reduces Speculative Pumping: Since the price adjusts in a gradual, controlled manner, the presale reduces the likelihood of speculative "pump and dump" schemes that are common in traditional ICOs (Initial Coin Offerings).

Community Engagement and Ecosystem Growth

- Building Communities Around Projects: The contract encourages community-driven participation, as early backers are rewarded with lower prices and a stronger stake in the project's success. This builds an invested community around the project that has both financial and reputational incentives to see it succeed.
- Integration with DeFi: The contract integrates seamlessly with DeFi protocols like Uniswap and Balancer, which are foundational to the Web3 ecosystem. By creating liquidity pools post-presale, the project ensures that tokens have immediate utility and market value, fostering broader DeFi adoption.

Automatic Liquidity Pool Creation

- Ensuring Liquidity: One of the major challenges in DeFi projects is liquidity. The contract automatically wraps the ETH raised and pairs it with the presale token to create a liquidity pool on decentralized exchanges. This feature ensures that the token is tradable immediately after the presale ends, providing liquidity to the market and enabling price discovery.

Note:

The Bonded Curve Presale contract is a powerful tool that helps users, investors, and the Web3 ecosystem in multiple ways. By offering a fair and transparent pricing mechanism, risk mitigation, and dynamic token distribution, it fosters a more equitable and decentralized approach to token fundraising. For investors, it provides a safe and incentivized environment to participate in early-stage projects, while for project creators, it offers a way to raise capital without relying on traditional fundraising methods. For the broader Web3 ecosystem, this contract promotes decentralized finance, community engagement, and liquidity, all of which are crucial for the growth and sustainability of Web3 technologies.

How the Bonded Curve Presale Contract Prevents Rug Pulls and Other Fraudulent Activities

The **Bonded Curve Presale Contract** incorporates several mechanisms designed to prevent fraudulent activities, such as **rug pulls**, which have been common in the Web3 space, particularly in token presales and decentralized finance (DeFi) projects. Below are the key ways the contract helps to mitigate these risks and ensures a more transparent and secure fundraising process.

1. Smart Contract Transparency

- **Open Source and Auditable**: The contract code is fully transparent and open-source. This allows anyone, including security auditors and the community, to review the contract for potential vulnerabilities or malicious logic. This level of transparency reduces the likelihood of hidden backdoors or fraudulent behavior.

- **Trustless Transactions**: All actions within the presale process (such as token transfers, ETH contributions, and refunds) occur directly on-chain. This means there is no need for trust in a third party, and users can independently verify that the contract is executing as expected.

2. No Control Over Funds by the Creator (No Centralized Control)

- **Presale Funds Are Secure**: In a typical rug pull, the project creator retains control over the raised funds and may drain them at any time. In this contract, the funds raised (in ETH) are not directly controlled by the project creator; rather, they are securely handled by the contract itself.

- **Automatic Fees and Refunds**: The presale includes automated functions for fee collection, token distribution, and refunds. If the presale fails (e.g., fundraising target is not met), users can automatically reclaim their ETH in proportion to their contribution, preventing the project creator from absconding with the funds.

- **No Ability to Withdraw Raised ETH Before Presale Success**: The funds raised by the presale (ETH contributions) are only used for specific purposes — for example, creating liquidity pools for the project's token or paying presale fees. The creator cannot withdraw the funds unless certain conditions are met, such as the successful completion of the presale and token distribution.

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3. Fail-Safe Mechanism and Exit Options for Users

- **Exit Option for Failed Presales**: One of the key features of this contract is the ability for users to **exit the presale and receive a refund** if the presale is unsuccessful. This is a critical safeguard against rug pulls because it ensures that if the presale doesn't meet its goal, users can recover their funds (ETH).

- ○ In the case of a failed presale, users can **reclaim their contribution** in ETH proportional to their token holdings. This eliminates the possibility that the project creator can just take the raised funds without consequence.
- **Token Buyback Option (Early Exit)**: Even if a user wants to exit the presale before it ends (while the project is still ongoing), the contract allows them to **sell back tokens** and withdraw their ETH based on the current price determined by the bonding curve. This ensures liquidity for participants, which is usually absent in traditional presale models where funds are locked up.

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4. No Over-Allocation or Price Manipulation (Fair Token Distribution)

- **Bonding Curve Pricing**: The dynamic pricing model based on the bonding curve prevents price manipulation by project creators or large investors. As more tokens are sold, the price increases, making it economically unfeasible for any participant to buy up all tokens at a low price, thus eliminating the risk of price manipulation.

- **Limiting Whale Control**: Since the token price increases as more ETH is contributed, **early participants** benefit from a lower price, but **later participants** pay a higher price. This helps prevent whales or large investors from **cornering the presale** and manipulating the token supply and pricing, as seen in many fraudulent projects where large buyers purchase all tokens at a low price and then dump them.

- **Token Distribution is Predictable**: The presale follows a **clear and predictable model** for how tokens are distributed, based on the amount of ETH contributed and the price dictated by the bonding curve. This ensures that users know exactly what they are getting for their ETH, making it harder for the project team to secretly enrich themselves at the expense of smaller contributors.

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5. Project Creator Restrictions

- **Token Locking**: In the event of a successful presale, the contract creates a liquidity pool and converts a portion of the raised funds into liquidity on decentralized exchanges (like Uniswap). This prevents the project creator from withdrawing all funds at once and ensures that liquidity remains in the system for token trading.

- **Fees and Refunds Are Automatically Handled**: The contract handles the fee structure and any refunds automatically, reducing the ability of project creators to unilaterally alter the process or withdraw funds prematurely. **Successful presale fees** are calculated and distributed automatically to ensure that the project creator does not have the discretion to pocket funds without fulfilling the presale terms.

- **Status Updates and Project Transparency**: The contract updates the status of the project (e.g., whether it is successful, pending, or failed) transparently on the blockchain. This allows investors and users to track the progress of the presale and know when the presale ends, reducing uncertainty and allowing them to act accordingly.

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6. Presale Project Status and Automatic End Conditions

- **Status Change on Presale Completion**: The contract includes an automatic status update function that changes the project status when certain conditions are met, such as the end of the presale or if the project fails to meet its funding goal.
    - If the presale is successful, the contract moves to the next stage of creating a liquidity pool and distributing tokens. If it fails, it automatically enters a **refund phase**, where users can reclaim their ETH.
    - These automatic status transitions make it impossible for the project creator to arbitrarily manipulate the presale's outcome, preventing them from creating a false narrative about the success of the presale.

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7. Liquidity Pool Creation for Token Trading

- **Ensuring Liquidity Post-Presale**: Upon a successful presale, the contract automatically creates a liquidity pool with the raised ETH and the tokens to be distributed. This liquidity pool ensures that users can trade their tokens immediately after the presale ends, which prevents situations where a project could be abandoned after the presale, leaving investors stuck with illiquid tokens.

- **Liquidity Pool Protection**: By tying the liquidity pool creation to a successful presale, the contract ensures that there is an immediate market for the token once the presale concludes. This ensures that the token has inherent value and liquidity, preventing a scenario where investors are left with worthless tokens (a common occurrence in rug pulls).

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8. Audit and Risk-Free for Small Investors

- **Smaller Investor Protection**: This contract's design helps level the playing field for smaller investors. Since the presale operates with a **bonding curve**, larger investors cannot control the price or token supply, and early users are incentivized with better pricing. This protects smaller investors from being manipulated by large players.

- **External Auditing**: The code can be audited by third-party security firms or open-source contributors to ensure there are no vulnerabilities that could allow rug pulls or other fraudulent activities.

Note:

The **Bonded Curve Presale Contract** incorporates multiple layers of protection that help to prevent **rug pulls** and other fraudulent activities:

1. **Transparency**: All transactions are on-chain and the contract code is open-source.
2. **No Centralized Control**: The contract limits the ability of the creator to withdraw funds or manipulate the presale, reducing the risk of fraudulent behavior.
3. **Automated Refunds**: In case of a failed presale, users are guaranteed a refund based on their token holdings.
4. **Dynamic Pricing and Fair Distribution**: The bonding curve ensures that no participant can manipulate the price or token allocation.
5. **Liquidity Pools**: Upon a successful presale, a liquidity pool is automatically created, ensuring the project has market value and liquidity post-sale.

These features work together to significantly reduce the likelihood of **fraud**, **price manipulation**, and **rug pulls**, providing a more secure, fair, and trustworthy environment for both users and investors.

Bonded Curve Presale Contract

The **Bonded Curve Presale** contract is a decentralized fundraising mechanism built on a bonding curve, which allows users to buy and sell tokens during a presale event. The price of the token changes based on supply, increasing as more tokens are purchased and decreasing as tokens are sold back to the contract. This dynamic pricing model provides incentives for early investors and helps manage the supply-demand balance in a decentralized way. This contract integrates with other Web3 protocols like Uniswap and Balancer for liquidity and fee distribution.

Key Features

1. **Bonded Curve Pricing**: The contract employs a **bonding curve** for pricing tokens. As users contribute ETH, the price of the token increases according to a set **price slope**. This incentivizes early participation, as the price is lower at the beginning and increases as more tokens are sold.

2. **Presale Mechanism**:

   - Users can join the presale by sending ETH to the contract in exchange for tokens.
   - Users can also leave the presale, refunding their ETH in proportion to the tokens they hold if the presale fails.
   - The presale ends either when the timer expires or when a target is met (defined by the project's success conditions).

3. **Project Creation**: A presale project is created by calling `createPresale` with:

   - Token to be sold
   - Initial token supply (must be even for a balanced sale)
   - Start and end times for the presale
   - Pool type (e.g., Uniswap, Balancer)

4. **Dynamic Token Price:**

   - The price per token changes with each transaction, determined by the bonding curve equation:
     - Price = (PRICE_CHANGE_SLOPE * supply) / DECIMALS + BASE_PRICE
   - As more ETH is contributed, the supply decreases, increasing the token price.
   - Token buy and sell amounts are calculated dynamically based on this curve, ensuring a continuous, price-adjusted sale.

5. **Project Status:**

   - Projects can be **pending, successful,** or **failed.** The status determines the conditions under which users can exit the presale or receive refunds.
   - If a presale ends successfully, the contract calculates fees and distributes funds to the project creator and liquidity providers.
   - If the presale fails, contributors can exit and reclaim their ETH in proportion to their token holdings.

6. **Fee Mechanism:**

   - The contract charges a fee for successful presale completions, which is taken from the raised funds and distributed to the project creator and the fee collector.
   - The fee is defined by the successfulEndFee variable and is deducted from the total raised ETH.

7. **Liquidity Pool Creation:**

   - Upon successful presale completion, the contract wraps the ETH into WETH (Wrapped ETH) and creates a liquidity pool with the presale token using a platform like Uniswap or Balancer.
   - The remaining tokens are distributed to liquidity pools, enabling users to trade the tokens on decentralized exchanges after the presale ends.

Detailed Mechanism

Project Creation

1. **Token and Supply:**

   ○ The project creator must specify the token to be sold and an even initial token supply. Half of the supply goes to the presale, and the other half goes to the liquidity pool.
   ○ The contract ensures that the token and parameters like start and end times are valid before accepting the presale setup.

2. **Presale Participation:**

   ○ Users can participate in the presale by sending ETH. The amount of tokens they receive is determined by the bonding curve, based on the current supply.
   ○ As more users contribute, the price per token increases according to the bonding curve formula. Users who contribute earlier get the tokens at a lower price.

3. **Token Refunds:**

   ○ Users can exit the presale and claim back their ETH if the project fails. The amount of ETH refunded is based on the proportion of tokens the user holds and the price at failure.
   ○ If the presale fails (target not met), contributors can exit by returning their tokens and receiving their ETH back.

Bonding Curve Pricing

The pricing formula for the bonding curve is as follows:

- **Price per token** increases as more tokens are bought. This is calculated using:
  - Price = (PRICE_CHANGE_SLOPE * supply) / DECIMALS + BASE_PRICE
- **Where:**
  - PRICE_CHANGE_SLOPE controls how steep the price increase is as more tokens are purchased.
  - BASE_PRICE is the starting price of the token.
  - supply is the current remaining token supply.

As more ETH is contributed and tokens are sold, the price increases, which discourages late-stage buyers from buying large amounts at a low price.

Token Buy and Sell

- When a user buys tokens during the presale, the contract calculates the amount of tokens to transfer based on the current price.
- When a user exits, they sell tokens back to the contract for ETH, with the price adjusted according to the remaining token supply at the time of exit.

Project Completion

- Once the presale period ends (or the funding goal is met), the contract determines whether the presale was successful.
  - If successful, the raised funds are distributed to the creator, and a liquidity pool is created for trading the token.
  - If unsuccessful, contributors can redeem their ETH based on the bonding curve, which ensures fairness in the event of failure.

Exit Conditions

- If the presale ends successfully, contributors may receive their tokens in exchange for the ETH they contributed.
- If the presale fails, contributors can claim back their ETH according to their token holdings.

Benefits to Web3 Ecosystem and Investors

1. **Decentralized Fundraising**: The Bonded Curve Presale contract offers a trustless and transparent way for projects to raise funds in a decentralized manner, without relying on centralized entities.

2. **Dynamic Pricing**: The bonding curve mechanism creates a fair pricing model where early participants are rewarded with lower prices and later participants pay a higher price. This ensures early adopters have an incentive to support projects early on.

3. **Reduced Risk for Investors**:

   - The contract allows users to exit with a proportional refund of their ETH if the presale fails, reducing the risk of losing funds.
   - The price is dynamically adjusted based on the total supply, ensuring that no participant is unfairly priced.

4. **Liquidity Integration**: Upon successful completion, the presale proceeds are used to create liquidity pools on decentralized exchanges (e.g., Uniswap, Balancer), which helps ensure liquidity for the presale token once it hits the market.

5. **Community Participation**: By using this mechanism, projects encourage community involvement and create a more engaged base of early investors who benefit from the token's price increase as they support the project's growth.

6. **Fair Token Distribution**: The contract ensures that the presale tokens are distributed fairly, with the price changing according to the amount of tokens remaining. This makes sure that the distribution is driven by market forces, rather than arbitrary pricing.

In summary, the **Bonded Curve Presale** contract fosters a more open, dynamic, and fair environment for both project creators and investors in the Web3 ecosystem. It offers decentralized fundraising with a transparent mechanism, flexible participation, and a fair exit strategy for participants, all of which enhance the overall adoption and growth of decentralized finance (DeFi) projects.