

# Phoenix Project Developer Document

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## Executive Summary

The Phoenix Project is a unique memecoin ecosystem designed to maximize investor profits and address common pitfalls in the crypto space, such as rug pulls and whale manipulation. The system operates on a market cap milestone unlock mechanism that ensures steady token value growth.

The project will launch on the **Solana blockchain**, beginning with the **HotWings token**, (with subsequent memecoins under the Phoenix umbrella).

The smart contract is designed to manage token distribution, milestone unlocks, transaction taxes, and an auto-sell mechanism.

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## Core Features

### 1. Milestone Unlock System

- **Description:** Investors unlock a percentage of their tokens at predefined market cap milestones.
- **Milestone Schedule:**
  - **\$45,000** → 10% unlocked
  - **\$105,500** → 10% unlocked
  - **\$225,000** → 10% unlocked
  - **\$395,000** → 10% unlocked
  - **\$650,000** → 10% unlocked
  - **\$997,000** → 10% unlocked
  - **\$1,574,000** → 10% unlocked
  - **\$2,500,000** → Full unlock
- If the market cap milestone is not reached, all tokens will unlock **after 3 months**.

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## 2. Late Investor Unlocks

- Late investors (those who join after a milestone) can sell a cumulative percentage of their holdings at the next milestone. For example:
    - An investor who enters after milestone 3 will unlock 30% (missed milestones 1,2 and 3) + 10% at, once milestone 4 is reached.
  - **Important:** Late investors cannot unlock or sell any tokens until the **next milestone is reached** after their investment. This ensures alignment with the project's milestone-based structure.
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## 3. Transaction Tax

- **Rate:** 1.5% on all buys and sells (but not transfers).
    - **0.75% Burn:** Reduces total token supply to increase scarcity.
    - **0.75% Marketing Wallet:** Funds promotions and community activities.
  - **Direct Distribution:** Taxes are directly sent to the burn and marketing wallets.
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## 4. Whale Protection

- Maximum wallet holding capped at **5%** of the total token supply, **except** for the Project's and Marketing wallets.
  - Ensures fair distribution and prevents market manipulation.
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## 5. Auto-Sell Mechanism

- **Trigger:** The auto-sell mechanism activates when the **final milestone** is reached (via market cap or the 3-month deadline).
- **Details:**
  - Sells **25%** of the project's token allocation.
  - Proceeds are sent to the **Project Wallet** for reinvestment and team expenses.

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## Smart Contract Addresses

- **Token Address:** gSUJiXEySozS9TvgxgQ4db3F1iAV5nNvL9sq3D6KbKG
  - **Project Wallet:** 34o4N3JLTxGsqHtFqwpsPDRyimmhbGrUNhhro6xGKhAS
  - **Marketing Wallet:** Fn3Co7FJyMHM6RpPD74TX4Ah2ShLhyNHZNie19jNg8BG
  - **Burn Wallet:** B1opJeR2emYp75spauVHkGXfyxkYSW7GZaN9B3XoUeGK
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## Key Technical Components

### 1. Milestone Management

- Tracks market cap progression.
- Ensures no duplicate unlocks if the market cap drops below a milestone and rises back above it.

### 2. Tax Implementation

- Applies 1.5% tax on every buy/sell transaction.
- Automatically sends taxes to burn and marketing wallets.

### 3. Auto-Sell Integration

- Executes token sales on a DEX using the **OpenBook Market ID**.
- Converts HotWings tokens into SOL.

### 4. Late Investor Handling

- Implements cumulative unlock percentages for late investors.
- Restricts selling until the next milestone.

### 5. Wallet Restrictions

- Prevents any wallet from holding more than 5% of the total token supply.

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## Addressing Potential Issues

### 1. Double Milestone Unlock Prevention

- Milestone flags ensure each unlock happens only once.
- Tested for scenarios where market cap fluctuates above and below milestones.

### 2. Late Investor Logic

- Cumulative unlock logic is bounded to milestones already achieved.
- Wallets must wait until the next milestone before selling.

### 3. Tax Calculation and Distribution

- Uses fixed-point arithmetic to avoid rounding errors.
- Taxes are directly distributed to burn and marketing wallets for efficiency.

### 4. Auto-Sell Execution

- Single-execution guard prevents multiple triggers.
- Relies on verified DEX (e.g., OpenBook) for liquidity.

### 5. Whale Cap Enforcement

- Specific exemptions for project and marketing wallets.
- Wallet cap applies only to investor wallets.

### 6. Market Cap Tracking

- Decentralized oracles fetch price data for accurate market cap calculations.
- Fallback mechanisms handle temporary price feed issues.

### 7. Full Unlock Logic

- Based on block timestamps to prevent premature unlocks.
- Triggered either by reaching the final milestone or hitting the 3-month deadline.