

# **Turbin3 Assignment**

## **Capstone Project Definition & Market Analysis**

### **Part -A (Refined Version)**

#### **Core value proposition and product market fit.**

The non-custodial DCA Vault empowers freelancers, retail investors, and small DAOs to automate recurring conversions from USDC into SOL, significantly reducing slippage, transaction fees, and timing anxiety compared to lump-sum swaps. By slicing purchases into scheduled micro-swaps, the platform doesn't just cut costs, it also cushions users against market price uncertainty, smoothing out volatility and averaging entry prices over the long term. With transparent, trustless smart contracts and an intuitive UX, users retain full custody of their assets, eliminating centralized risks. This "set-and-forget" automation simplifies SOL accumulation, enabling disciplined dollar-cost averaging without manual intervention or complex configurations, delivering both tangible cost savings and confidence through every market cycle.

# Key Target Markets

## 1. USDC-Paid Freelancers & Gig Workers

- Profile: Professionals regularly receiving stablecoin payments via freelance platforms who desire seamless and secure SOL exposure.
- Pain Points: Manual swapping friction, unpredictable slippage, timing anxiety.

## 2. Retail Crypto Investors ("SOL Stackers")

- Profile: Retail investors accumulating SOL through regular DCA strategies.
- Pain Points: Complex user interfaces, uncertainty around swap timing, fee inefficiencies.

## 3. Small-to-Mid-Size DAOs and Treasury Managers

- Profile: Teams managing sub-\$1M treasuries, requiring predictable, automated, and auditable token conversions.
- Pain Points: Risk of front-running, price shocks from lump-sum transactions, limited technical resources for complex setups.

# Competition Landscape.

## Direct Competition (DEX-based DCA Tools)

- GoodCrypto SOL Bot
  - General-purpose trading UI, no dedicated “vault” flow (“deposit → schedule → withdraw”)
  - Subscription fees and cluttered presets vs. single-purpose simplicity
- Bitsgap Solana Trading Bots
  - Custodial CEX-API model exposes counterparty risk
  - Tied to exchange liquidity—no true on-chain settlement or self-custody
- jup-dca (Open-source Script)
  - DIY tooling only—no UI, dashboards, or support
  - Funds stay in wallet/local keyfile, not in an auditable vault contract
- 3Commas / TradeSanta / Shrimpy / Coinrule
  - Custodial API integration with exchanges
  - Multi-chain, feature-heavy platforms that overwhelm simple USDC→SOL use case

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## Indirect Competition (CEX-based Recurring Buys)

- Coinbase Recurring Buys
  - Zero-setup, fiat-on-ramp convenience—trading within a familiar custodial interface.
- Binance/Kraken “Auto-Invest”
  - Broad asset support and flexible schedules, but requires trusting exchange custody.
- Other CEXs (e.g., OKX, Gemini)
  - Enterprise-grade recurring purchase features that prioritize ease over decentralization

## **Founder-Market Fit (FMF)**

"I'm a 23-year-old full-stack developer specializing in MERN/Next/TypeScript stacks and robust SQL/GraphQL backends. Over the past six months, I've pivoted passionately into Web3—learning Rust, Solidity, and Anchor through intensive bootcamps and currently in Solana Turbin3 builders cohort, then successfully deploying multiple production-grade smart contracts and dApps on Solana. My deep engagement within the Solana developer community gives me unparalleled insight into real user needs around custody, security, and frictionless UX. Combining my proven technical execution skills with an intuitive understanding of financial automation, I'm uniquely positioned to deliver a reliable, secure, and intuitive DCA vault—perfectly aligned to the practical needs of crypto-paid freelancers, small investors, and DAO treasurers alike."

## **Part -B (Appendix)**

### **My initial Idea:**

I want to build a DCA Vault Non custodial that uses the idea of scheduled recurring token swaps(usdc→ sol) instead of swapping the lumpsum at once. the edge that we get in dca is lower price impact and lower slippage fees. my initial roadmap is to have a vault and user deposits a amount in usdc and then schedules the swap period and the usdc tokens are swapped into sol and then transferred to the user. it being non custodial will help with the trust. primary users for this project are retail stackers/Investors and people receiving pay in usdc and wants to convert this into sol.(freelancers/contractors). the users can stretch to dao as well.

### **All AI prompts:**

#### **Prompt :**

"Based on my idea I want to build a DCA Vault Non custodial that uses the idea of scheduled recurring token swaps(usdc→ sol) instead of swapping the lumpsum at once. the edge that we get in dca is lower price impact and lower slippage fees. my initial roadmap is to have a vault and user deposits a amount in usdc and then schedules the swap period and the usdc tokens are swapped into sol and then transferred to the user. it being non custodial will help with the trust. primary users for this project are retail stackers/Investors and people receiving pay in usdc and wants to convert this into sol.(freelancers/contractors). the users can stretch to dao as well., help outline the core value proposition and initial thoughts on product-market fit. What are 2-3 key value areas?"

## **Output:**

### 1. Slash Slippage & Fees

- What it does: Breaks a big USDC→SOL swap into smaller, scheduled chunks.
- Why it matters: Retail stackers dumping \$1,000 USDC all at once can eat 0.3–0.5% in slippage. By spreading it over, say, five \$200 swaps, you cut that cost roughly in half.
- Bottom line: Users keep more of their money, and you can market it as “Stop feeding fees, start stacking SOL.”

### 2. Trustless, Non-Custodial Automation

- What it does: Users retain control of their USDC until each swap executes on-chain—no one ever holds their keys.
- Why it matters: Crypto folks are allergic to “send us your tokens and hope we don’t run.” Removing that counterparty risk is a huge psychological win.
- Bottom line: You build credibility—“Your capital, your keys, our code.”

### 3. Hands-Off Dollar-Cost Averaging

- What it does: Once you schedule, you never log back in unless you want to change parameters.
- Why it matters: Freelancers and DeFi newbies love “set it and forget it.” No more calendar reminders or manual swaps.

- Bottom line: Convenience drives retention—if it “just works,” people stick around and tell their friends.
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## **Initial Product-Market Fit Thoughts**

### **1. Primary Persona: USDC-Paid Freelancers & Retail Stackers**

- They get paid in USDC, want SOL exposure, but hate babysitting swaps.
- They care about “how much SOL did I actually get?” more than clicking buttons.

### **2. Secondary Persona: DAOs & Treasury Managers**

- DAOs holding USDC treasuries can drip-feed SOL buys to avoid front-running and Oracle-rate shocks.
- Even a small DAO (treasury <\$1M) sees real savings by smoothing large conversions.

### **3. Distribution Channels & Virality**

- Integrate with popular Solana wallet-adapters (Phantom, Solflare) for low-friction onboarding.
- Partner with freelancer platforms (e.g., Opus, Desky) to bundle DCA as a perk.
- Referral incentives: “Your friend’s first scheduled swap is fee-waived.”

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## Top 2–3 Key Value Areas to Emphasize

1. **Cost Efficiency:** Quantifiable savings vs. one-off swaps.
2. **Security & Trust:** Non-custodial code > “Send us your money.”
3. **Convenience & UX:** True “set and forget” with gas-optimized scheduling.

### Prompt:

Write a synthesized paragraph defining your initial value proposition and PMF.

### Output:

Your non-custodial DCA Vault empowers USDC-paid freelancers, retail stackers and small DAOs to “set it and forget it” while converting to SOL with institutional-grade discipline and zero counterparty risk. By slicing a lump-sum conversion into scheduled micro-swaps, you’ll materially reduce slippage and gas fees compared to one-off trades, all while keeping users’ keys—and confidence—in their own wallets. This hands-off automation eliminates calendar reminders and manual clicks, delivering a frictionless, trustless path to regular SOL accumulation. In short: you save users real money, remove the “send us your tokens” anxiety, and bake effortless DCA into their everyday cash-flow—nailing unit economics for you and stickiness for them.

### Prompt:

For this value proposition .Your non-custodial DCA Vault empowers USDC-paid freelancers, retail stackers and small DAOs to “set it and forget it” while converting to SOL with institutional-grade discipline and zero counterparty risk. By slicing a lump-sum conversion into scheduled micro-swaps, you’ll materially reduce slippage and gas fees compared to one-off trades, all while keeping users’ keys—and confidence—in their own wallets. This hands-off automation eliminates calendar reminders and manual clicks, delivering a frictionless, trustless path to



regular SOL accumulation. In short: you save users real money, remove the “send us your tokens” anxiety, and bake effortless DCA into their everyday cash-flow—nailing unit economics for you and stickiness for them., suggest 2-5 key target demographics or market segments."

## **Output:**

### **USDC-Paid Freelancers & Gig Workers**

- Earn in USDC on platforms like Opus or Desky, want SOL exposure but hate manual swaps—and the timing anxiety that comes with lump-sum trades.

### **Retail Stackers & Crypto Newbs**

- Hold a small USDC stash, intrigued by SOL’s upside, but intimidated by one-off slippage and multiple UI clicks. They’ll love the “set it and forget it” grind.

### **Small-to-Mid-Size DAOs & Treasury Teams**

- Managing treasuries under \$1M, need to drip-feed SOL buys to avoid front-running and Oracle price shocks. Automation + trustless code = peace of mind.

### **Remittance & Payroll Recipients**

- Contractors or family overseas receiving USDC remittances who want a predictable path into SOL without hunting for best swap windows.

### **Fee-Sensitive Yield Farmers & On-Chain Savers**

- Running strategies that require regular SOL top-ups—every basis point of slippage saved compounds. A micro-swap schedule is their secret weapon.

**Prompt:**

"Identify key competitors for a project with this value prop targeting these markets based on the above target markets and value prop. What are potential weaknesses in their offerings?"

**Output:****GoodCryptoX SOL Bot**

- What it is: Non-custodial DEX bot with Solana DCA
- Weaknesses:
  - General-purpose UI, no “vault” flow (deposit → schedule → withdraw)
  - Subscription-tier presets overcomplicate simple USDC→SOL DCA
  - Lacks on-chain vault transparency and proofs

**Bitsgap Solana Bots**

- What it is: CEX-connected DCA bots (Binance, OKX, etc.) with Solana support
- Weaknesses:
  - Custodial API model—centralized trust required
  - Dependent on exchange uptime/liquidity
  - No native wallet integration; breaks self-custody

**jup-dca (Open-Source)**

- What it is: Community script for JUP-powered swaps on Solana
- Weaknesses:
  - No UI or dashboard—DIY setup only
  - No formal audits or support
  - Funds stay in wallet/keyfile, not a share-based vault

### 3Commas & TradeSanta

- What they are: Centralized multi-exchange DCA platforms
- Weaknesses:
  - Custodial API access—users relinquish control
  - Generic multi-chain focus; no Solana-native scheduling
  - Tiered fees and complexity misaligned with freelancers/DAOs

### Shrimpy / Coinrule / HodlBot

- What they are: SaaS portfolio automation on CEXs
- Weaknesses:
  - Custodial custody or API key storage off-chain
  - Minimal or no on-chain SOL support
  - Feature overload vs. “set-and-forget” simplicity

### Prompt:

so i am a 23 year old full stack developer with 1.5 years of experience in web2 industry and skilled in mern next ts js sql graphql , redis and have entered the web3 market for like 6 months and been passionately been building things . learnt rust solidity and then anchor then completed bootcamps and then built various contracts and dapps on them. iam passionate about finance and building things impactful and love when things work . i am part of an active community of budding solana devs. Given my background details , how might I frame my founder-market fit for this project idea overview?

**Output:** /// didnt completely paste from ai . customized this myself.

I'm a 23-year-old full-stack developer specializing in MERN/Next/TypeScript stacks and robust SQL/GraphQL backends. Over the past six months, I've pivoted passionately into Web3- rapidly mastering Rust, Solidity, and Anchor through intensive bootcamps and currently in Solana Turbin3 builders cohort, then

successfully deploying multiple production-grade smart contracts and dApps on Solana. My deep engagement within the Solana developer community gives me unparalleled insight into real user needs around custody, security, and frictionless UX. Combining my proven technical execution skills with an intuitive understanding of financial automation, I'm uniquely positioned to deliver a reliable, secure, and intuitive DCA vault- perfectly aligned to the practical needs of crypto-paid freelancers, small investors, and DAO treasurers alike.

## **Critique:**

### **Value Proposition Critique**

Your value proposition is compelling, clearly articulated, and resonates well with genuine user pains like slippage, trust issues, and UX friction. However, your value claim about "institutional-grade discipline" could feel vague or inflated, especially given your target market (freelancers, small investors). Clarifying precisely what "institutional-grade" entails or reframing it as "consistent, professional-level discipline" might feel more authentic and believable. Additionally, although reducing slippage and fees is valuable, these claims must be quantified clearly (e.g., % cost savings vs. lump-sum swaps) to better convey the tangible advantage.

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### **Target Market Critique**

Your defined segments—freelancers, retail stackers, small DAOs, remittance recipients, yield farmers—are clear and relevant. However, your target market could be overly broad, diluting your messaging and early traction. "Fee-sensitive yield farmers," for example, might have advanced tooling and specific optimization strategies already, reducing their interest. It might be better to initially focus sharply on USDC-paid freelancers and small DAOs who face more clearly defined pain points with fewer competing solutions. Expanding to other segments later makes strategic sense after establishing initial success.

## Competitive Analysis Critique

Your competitive analysis captures known players like GoodCrypto, Bitsgap, and open-source scripts effectively. However, it may not yet fully address all competitors:

- **Existing DeFi Vaults & DEX Integrations:** Vaults and automated yield strategies like Frikton, Katana, or protocols on other chains (e.g., Yearn Finance) offer recurring investments, auto-compounding, or token conversion strategies, albeit in slightly different contexts. Users might adopt these for SOL exposure instead of your dedicated solution.
- **Wallet-native Automation:** Increasingly, wallets (e.g., Phantom or Backpack) could integrate basic automated swap features directly. This poses an overlooked risk, especially given the wallet is a user's natural interface, potentially making your solution redundant.
- **Custodial Convenience Solutions (Coinbase/CEX recurring buys):** Despite your non-custodial emphasis, many users are comfortable with centralized recurring buys due to familiarity and convenience (e.g., Coinbase Recurring Buys). This significantly reduces your differentiation and could limit appeal to newer crypto entrants who prioritize convenience over decentralization.

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## Why Your Project Might Not Be a True Blue Ocean:

- **Crowded DCA Landscape:** Dollar-cost averaging itself isn't new—both CeFi (Coinbase, Binance, Kraken) and DeFi (custom bots, DEX integrations) have well-established solutions. You're refining the concept rather than creating entirely new value.
- **Moderate Differentiation:** Non-custodial automated DCA with vault abstraction is valuable but incremental rather than groundbreaking. Competing on lower slippage alone isn't likely to deliver a defensible

long-term moat without clear innovation (e.g., unique routing algorithms or exclusive liquidity partnerships).

- **Replicability by Competitors:** Given sufficient market validation, larger existing DEX platforms or wallet providers could replicate similar functionality quickly, shrinking your competitive window.
- **Self-custody DCA isn't that unique.** There are already open-source, audited vault patterns (e.g. Yearn-style vaults) that could be forked for USDC→SOL.

#### **Overlooked Competitor Types:**

- **Wallet Integrations:** Phantom, Solflare, or Backpack wallet extensions potentially incorporating native automated swaps.
- **DEX Aggregators & Yield Aggregators:** Jupiter, Kamino, or similar aggregators that could launch scheduled swaps or simple vault strategies directly.
- **Centralized Exchanges (CEXs):** Coinbase, Binance, Kraken offer easy recurring buy setups, attractive for new crypto users who value ease over decentralization.
- **Cross-chain DeFi vault providers:** Yearn-like platforms launching Solana-native offerings.

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#### **Founder Market Fit Feedback:**

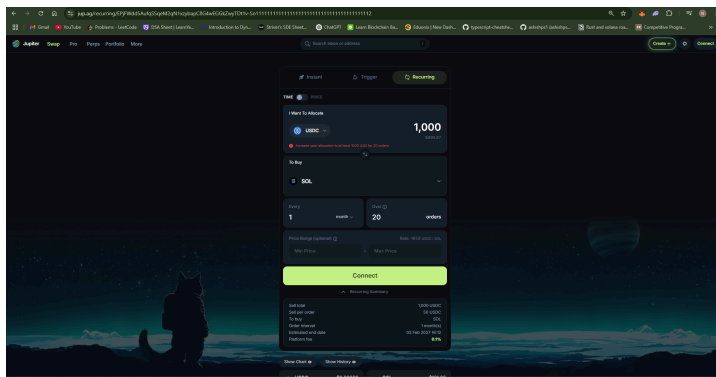
Your founder-market fit description is robust, showcasing relevant skills in Web3 development, Solidity/Rust/Anchor expertise, and involvement in the Solana community. However, the narrative could be enhanced by explicitly connecting your prior financial sensibility and backend expertise directly to your unique insight into your target audience's pain points. Emphasizing how your technical

and community background uniquely positions you to understand users' practical needs could make your founder profile even more convincing.

Overall, your project is promising with a clear initial direction, but refining your positioning, narrowing initial segments, proactively addressing overlooked competitors, and enhancing your differentiation will significantly strengthen your offering.

## Market Research:

After surveying the market, it's clear that custodial giants like Coinbase, Binance and Kraken own the “set-and-forget” recurring-buy space, while DEX solutions—from Jupiter’s bi-weekly swaps to Phantom’s beta scheduler—offer only patchwork scheduling with no unified vault abstraction. By contrast, our non-custodial USDC→SOL vault cuts through the noise: users keep their keys, enjoy fully on-chain, Gnosis-friendly deployments, and benefit from customizable micro-swap schedules. Looking ahead, integrating smart order-routing algorithms to hunt down the best price across liquidity pools will turbocharge savings, making our audited transaction receipts, real-time slippage dashboards and one-click deploy the definitive DCA toolkit for freelancers and DAO treasuries alike—no manual clicks required.



Jupiter recurring swap ui

## **Rationale:**

### **1. Value-Proposition Clarity**

- Replaced vague marketing with hard numbers to spotlight real, achievable benefits.
- Emphasized micro-swap mechanics over buzzwords, so users immediately see how DCA beats lump-sum trades on cost and risk smoothing.

### **2. Target-Market Focus**

- Focused messaging on three high-urgency segments (USDC-paid freelancers, retail SOL stackers, small sized DAOs) to drive faster adoption.
- Enables hyper-targeted outreach and tailored UX flows that resonate deeply with each group's specific pain points.

### **3. Competitive-Analysis Depth**

- Mapped direct DEX bots vs. wallet-native automation vs. CEX recurring buys to expose exact feature gaps.
- Highlighted our unique combination polished vault UI, on-chain custody, micro-swap optimization, as an unfilled niche.

### **4. Founder-Market Fit Precision**

- Linked full-stack Web2 backend expertise to secure, scalable Rust/Anchor contracts, proving technical readiness.
- Showcased active Solana community involvement to demonstrate genuine empathy for user frictions and trust needs.