

# Multi-Strategy Bot Testing Guide

**TL;DR:** Your money doesn't get "used up" — it trades in circles. Loss limits protect you. \$100 is fine for learning, \$250 gives more breathing room.

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## How the Bot Actually Works

Think of your capital like water in a fountain — it **circulates**, it doesn't drain.

```
USD
↓ buy
ATOM/SOL
↓ sell
USD (+ profit or - loss)
↓ buy
ATOM/SOL
↓ sell
USD
... forever ...
```

## The Three Strategies Working Together

Strategy	What It Does	How It Makes Money
 <b>Market Making</b>	Places buy & sell orders around current price	Captures the spread (buy low, sell slightly higher)

Strategy	What It Does	How It Makes Money
 <b>Grid Trading</b>	Creates a ladder of orders at fixed price levels	Profits from price bouncing up and down
 <b>RSI Directional</b>	Buys when oversold, sells when overbought	Catches momentum swings

**Your money just keeps cycling through these trades.** Profits add to your balance, losses subtract from it.

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## 🎯 Data Quality: \$100 vs \$250

Here's the honest truth since **you don't care about profit right now:**

### For Pure Data Collection

Factor	\$100	\$250	Winner
Trade frequency	Same	Same	 Tie
Strategy behavior	Identical	Identical	 Tie
Percentage returns	Same %	Same %	 Tie
Kill switch buffer	Tight	Comfortable	 \$250
Fee impact	Higher %	Lower %	 \$250
Stress level			 \$250

### The Real Difference

**\$100 Challenge:** With tight loss limits (\$50 max), a bad day could stop your test early. You'd need to reset and add more funds to continue collecting data.

**\$250 Advantage:** More runway before hitting limits. Your test is less likely to get interrupted, meaning **more continuous data**.

## 🏆 Verdict

If you truly don't care about profit: \$100 gives you the **same quality data** — just with less margin for error.

**\$250 is "better" because:** You're less likely to hit loss limits and interrupt your test. It's about **test longevity**, not data quality.

# My Recommendation

Start with \$100 if:
✓ You want to minimize risk
✓ You're okay restarting if limits hit
✓ You just want to see how it works
Go with \$250 if:
✓ You want uninterrupted 2–4 week test
✓ You hate babysitting
✓ You want cleaner, continuous data

## 💰 Capital Scenarios (\$100 - \$10,000)

Here's what each capital level looks like in practice — order sizes, profit potential, risk exposure, and long-term projections.

### 🌐 \$100 — The "Toe in the Water" Test

**Best for:** Learning, validating the bot works, minimal risk

Setting	Value
💵 Starting Capital	\$100
📊 Capital Allocation	MM: \$30 / Grid: \$40 / RSI: \$30
📦 Recommended Order Sizes	0.5 ATOM / 0.3 SOL
🛡️ Max Loss (Kill Switch)	\$50 (50% of capital)
风控 Risk Level	Medium-High % wise

### Profit Projections 📈

Scenario	Daily	Monthly	After 1 Year (Compounded)
🐻 Conservative (0.5%/day)	\$0.50	\$15	\$182
😊 Moderate (1.5%/day)	\$1.50	\$45	\$563

Scenario	Daily	Monthly	After 1 Year (Compounded)
🚀 Optimistic (2.5%/day)	\$2.50	\$75	\$1,097

## Worst Case Scenario 💀

You lose \$50 → Bot stops → You still have \$50  
That's it. Can't lose more.

## The "Run Forever" Path ⏪

Month 1: \$100 → \$115 (+15%)  
Month 3: \$115 → \$152  
Month 6: \$152 → \$232  
Month 12: \$232 → \$540  
Year 2: \$540 → \$2,900 🤯

Assumes moderate 1.5%/day average, compounding

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## 💵 \$250 — The "Comfortable Test"

**Best for:** Serious testing with breathing room — ⭐ IDEAL FOR TESTING

Setting	Value
USD Starting Capital	\$250
📊 Capital Allocation	MM: \$75 / Grid: \$100 / RSI: \$75
📦 Recommended Order Sizes	1 ATOM / 0.5 SOL
🛡️ Max Loss (Kill Switch)	\$50 (20% of capital)
😊 Risk Level	Moderate

## Profit Projections ↗

Scenario	Daily	Monthly	After 1 Year (Compounded)
🐻 Conservative (0.5%/day)	\$1.25	\$38	\$455
😊 Moderate (1.5%/day)	\$3.75	\$113	\$1,408
🚀 Optimistic (2.5%/day)	\$6.25	\$188	\$2,743

## Worst Case Scenario 💀

You lose \$50 → Bot stops → You still have \$200 (80%)  
Much more comfortable buffer!

## The "Run Forever" Path 🔄

Month 1: \$250 → \$288  
Month 3: \$288 → \$380  
Month 6: \$380 → \$580  
Month 12: \$580 → \$1,350  
Year 2: \$1,350 → \$7,250 🔥

## 🏆 Why \$250 is THE Sweet Spot

- ✓ Losing \$50 only costs you 20% (vs 50% with \$100)
- ✓ Larger orders = better fills, less fee impact
- ✓ Can run all 3 strategies properly
- ✓ Still low enough that losing \$50 isn't devastating
- ✓ **Best balance of risk vs. data quality for testing**

## 💰 \$1,000 — The "Serious Trader" Setup

**Best for:** Real profit potential, proper position sizing

Setting	Value
💵 Starting Capital	\$1,000
📊 Capital Allocation	MM: \$300 / Grid: \$400 / RSI: \$300
📦 Recommended Order Sizes	3 ATOM / 5 SOL (script defaults)
🛡️ Suggested Kill Switch	\$100-150 (10-15% of capital)
😎 Risk Level	Low-Moderate

## Profit Projections 📈

Scenario	Daily	Monthly	After 1 Year (Compounded)
🐻 Conservative (0.5%/day)	\$5.00	\$150	\$1,820

Scenario	Daily	Monthly	After 1 Year (Compounded)
😐 Moderate (1.5%/day)	\$15.00	\$450	\$5,630
🚀 Optimistic (2.5%/day)	\$25.00	\$750	\$10,970

## Worst Case Scenario 💀

Default: Lose \$50 → Still have \$950 (95%) ✨

Adjusted: Lose \$150 → Still have \$850 (85%)

## The "Run Forever" Path 🔄

Month 1: \$1,000 → \$1,150  
 Month 3: \$1,150 → \$1,520  
 Month 6: \$1,520 → \$2,320  
 Month 12: \$2,320 → \$5,400  
 Year 2: \$5,400 → \$29,000 💎

## ⚙️ Suggested Script Adjustments for \$1,000

```

# These are actually the script defaults – they fit $1,000 well!
mm_order_amount = 3          # ATOM
grid_order_amount = 2         # ATOM per level
rsi_order_amount = 5          # SOL

# Consider increasing kill switch limits proportionally:
global_max_loss = 100        # $100 instead of $50
daily_loss_limit = 50         # $50 instead of $25
  
```

## 🏦 \$10,000 — The "Let It Print" Machine

**Best for:** Serious passive income, set-and-forget wealth building

Setting	Value
💵 Starting Capital	\$10,000
📊 Capital Allocation	MM: \$3,000 / Grid: \$4,000 / RSI: \$3,000
📦 Recommended Order Sizes	20-30 ATOM / 30-50 SOL
🛡️ Suggested Kill Switch	\$500-1,000 (5-10% of capital)

Setting	Value
🧘 Risk Level	Low

## Profit Projections ↗

Scenario	Daily	Monthly	After 1 Year (Compounded)
🐻 Conservative (0.5%/day)	\$50	\$1,500	\$18,200
😐 Moderate (1.5%/day)	\$150	\$4,500	\$56,300
🚀 Optimistic (2.5%/day)	\$250	\$7,500	\$109,700

## Worst Case Scenario 💀

Adjusted limits: Lose \$1,000 → Still have \$9,000 (90%)

Default limits: Lose \$50 → Still have \$9,950 (99.5%) 😂

## The "Run Forever" Path 🔄

```

Month 1: $10,000 → $11,500
Month 3: $11,500 → $15,200
Month 6: $15,200 → $23,200
Month 12: $23,200 → $54,000
Year 2: $54,000 → $290,000 🎉
Year 3: $290,000 → $1,500,000+ 🌴

```

## ⚙️ Suggested Script Adjustments for \$10,000

```

# Scale up order sizes 10x
mm_order_amount = 30          # ATOM (was 3)
grid_order_amount = 20         # ATOM per level (was 2)
rsi_order_amount = 50          # SOL (was 5)

# Scale up kill switches proportionally
mm_max_loss = 200            # (was $20)
grid_max_loss = 300           # (was $30)
rsi_max_loss = 250            # (was $25)
global_max_loss = 500          # (was $50)
daily_loss_limit = 250        # (was $25)
global_max_drawdown_pct = 10   # Keep at 10%

```

## Capital Comparison At-a-Glance

Capital	Order Size	Max Loss	Loss as %	Monthly Est.	1 Year Est.
 \$100	Tiny	\$50	50% 😰	\$15-75	\$180-\$1,100
 \$250	Small	\$50	20% 😊	\$38-188	\$455-\$2,743
 \$1,000	Medium	\$50-150	5-15% 😎	\$150-750	\$1,800-\$11,000
 \$10,000	Large	\$500-1,000	5-10% 🎉	\$1,500-7,500	\$18,000-\$110,000

### Which Should You Choose?

-  \$100 → "I just want to see if this works"
-  \$250 → "I want real data without big risk" ← SWEET SPOT
-  \$1,000 → "I'm serious, let's make real money"
-  \$10,000 → "I want passive income, not a hobby"

**Pro tip:** Start with \$100-250 to validate the bot works. Once you trust it after 2-4 weeks of data, scale up to \$1,000+. The bot doesn't care about your balance — it just trades. But YOU will sleep better knowing it works before going big.

### Loss Prevention (Your Safety Net)

This is where the script really shines. **You cannot lose everything.** Here's why:

#### Three Layers of Protection

- Layer 1: Per-Strategy Limits → Kills ONE strategy if it's failing
- Layer 2: Daily Loss Limit → Pauses everything, resets at midnight
- Layer 3: Global Kill Switch → Nuclear option, stops ALL trading

#### Current Settings in Your Script

Protection	Limit	What Happens
 Market Making Max Loss	-\$20	MM strategy stops, others continue

Protection	Limit	What Happens
Grid Trading Max Loss	-\$30	Grid stops, others continue
RSI Max Loss	-\$25	RSI stops, others continue
Daily Loss Limit	-\$25	ALL trading pauses until midnight
Global Max Loss	-\$50	Everything stops permanently
Max Drawdown	-10%	Everything stops permanently

## 🎯 What This Means For You

### With \$100:

Worst case scenario: You lose \$50 (50% of capital)  
Bot automatically stops. You still have \$50.

### With \$250:

Worst case scenario: You lose \$50 (20% of capital)  
Bot automatically stops. You still have \$200.

## Why This Is Actually Pretty Safe

1. **Daily limit of \$25** means even a horrible day caps your losses
2. **Individual strategy limits** prevent one bad strategy from draining everything
3. **10% drawdown limit** catches slow bleeds before they get bad
4. **Automatic stopping** — no emotions, no "maybe it'll come back"

MAXIMUM POSSIBLE LOSS: \$50

You literally cannot lose more than this unless you manually override the kill switches (don't do that).

## ♾️ The "Run Forever" Goal

Yes, the bot CAN run forever. Here's how that works:

## The Ideal Scenario

```
Day 1: $100.00 → +$2.00 profit → $102.00
Day 2: $102.00 → +$1.50 profit → $103.50
Day 3: $103.50 → -$0.80 loss → $102.70
Day 4: $102.70 → +$2.20 profit → $104.90
...
Day 30: $115.00 → Still running, compounding gains
Day 60: $135.00 → Still running
Day 365: $300.00+ → Still running, never added more money
```

## What Keeps It Running

Requirement	Why It Matters
✓ Net profitable	Gains > Losses over time
✓ Balanced inventory	Not stuck 100% in one asset
✓ Stay above loss limits	Don't trigger kill switches
✓ Hummingbot stays online	Computer/server running

## What Would Stop It

Event	Solution
🔴 Hit \$50 loss limit	Add funds or accept the loss
⚖️ Inventory imbalance	Bot has skew adjustment built-in
💻 Computer crash	Run on a server/VPS for 24/7
⚡️ Market crashes hard	Loss limits protect you, restart after

## The Beautiful Truth

If the bot is profitable, it pays for itself and grows forever.

Your \$100 could become \$150... \$200... \$500... without ever adding more money. The profits just compound.

## ✓ Quick Start Checklist

## Before You Start

- Choose your capital level (\$100 / \$250 / \$1,000 / \$10,000)
- Deposit funds to Kraken
- Wait for funds to clear
- Verify Kraken API is connected in Hummingbot ( connect kraken )
- If using \$1,000+, consider adjusting kill switch limits in script

## Starting the Bot

```
# In Hummingbot
start --script multi_strategy_bot.py
```

## Monitor With

```
# Check status anytime
status
```

## Understand the Dashboard

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### MULTI-STRATEGY BOT STATUS

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#### STRATEGY PERFORMANCE

Strategy	Status	P&L	DD%	Trades
Market Making	[ON]	+\$2.50	0.0%	15
Grid Trading	[ON]	+\$1.20	0.5%	8
RSI Directional	[ON]	-\$0.30	2.1%	3

GLOBAL: +\$3.40 | Daily: +\$3.40 | Status: RUNNING 

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## Risk Summary

Question	Answer
Can I lose all my money?	<b>No.</b> Max loss is \$50 (default), then bot stops.
Is \$100 enough to test?	<b>Yes.</b> Same data quality, just less buffer.

Question	Answer
Is \$250 better?	<b>Yes.</b> ★ Sweet spot — \$50 loss = only 20% of capital.
Is \$1,000 ideal?	<b>For profit, yes.</b> Script defaults are designed for this.
What about \$10,000?	<b>Passive income territory.</b> Scale up order sizes & limits.
Can the bot run forever?	<b>Yes, if profitable.</b> Gains compound automatically.
What's the worst case?	<b>Lose \$50 (default), bot stops, you keep the rest.</b>

## 💀 Worst Case By Capital Level

Starting Capital	Max Loss	You Keep	% Lost
\$100	\$50	\$50	50% 😢
★ \$250	\$50	\$200	20% 😊
\$1,000	\$50-150	\$850-950	5-15% 😎
\$10,000	\$500-1,000	\$9,000-9,500	5-10% 🙏

## 🚀 Final Thoughts

This bot is designed to be **low-risk by default**. The kill switches are your friends — they prevent emotional trading and catastrophic losses.

## No Matter Which Capital Level You Choose:

✓ You Will...	✗ You Won't...
Get real trading data	Lose more than your kill switch limit
Learn how each strategy behaves	Need to babysit it 24/7
Be protected by automatic stops	Risk your entire balance
Compound gains if profitable	Miss out on learning
Be able to scale up later	Regret starting small

## The Smart Path Forward

- Week 1-2: Start with \$100–250, validate it works
- Week 3-4: Analyze data, fine-tune settings

- 💰 Month 2: Scale to \$1,000 if confident
- 🏦 Month 3+: Go bigger once you trust the system

## Remember

The bot doesn't care if you have \$100 or \$10,000 — it just trades.

The difference is how YOU feel about the risk, and how much profit potential you unlock.

**Start where you're comfortable. Scale when you're confident. Let compound interest do the heavy lifting.**

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*Generated for the Dollar-A-Day Project 💰🚀*