ERM
ACADEMY

UNSTOPPABLE STRATEGY

How to Build, Scale, and Win Consistently

Mastering Renko Trading with NinjaTrader 8

A Modern Approach to Precision, Simplicity, and Consistency

Legal Disclaimer

This book is for **educational purposes only**. It is not financial advice. Futures, forex, and leveraged trading involve significant risk, and you may lose more than your initial capital. Always test strategies in a simulated environment before applying them live. Past performance does not guarantee future results. The author and publisher assume no responsibility for your trading decisions. You alone are responsible for your profits and losses.

Chapter 1 – The Hook: Why Renko—Why Now

Most traders begin their journey excited but overwhelmed. They stare at charts filled with candlesticks, indicators, news alerts, and contradictory opinions. Every minute, a new candle prints, even if nothing meaningful has happened in the market. The trader feels compelled to act, clicking buy and sell in fear of missing out.

Over time, fatigue sets in. The market feels chaotic, unpredictable, and hostile. Accounts shrink, confidence disappears, and frustration grows.

Renko charts change this story.

Renko is not about time. It is about movement. A brick appears only when price has traveled a defined distance. No movement, no new brick. The effect is immediate: charts that once seemed chaotic now look structured. Trends form clean stair-steps. Pullbacks and reversals appear as clear shifts instead of messy overlaps. Support and resistance lines shine like walls instead of vague zones.

This is why Renko is so powerful: it transforms **noise into clarity**.

Picture 1. September 2025 - 1 minute MNQ futures

The Problem with Time

Time-based charts are arbitrary. Why should a candle form every one minute, five minutes, or fifteen minutes? The market doesn't care about your clock. During slow sessions, dozens of candles form without telling you anything useful. During volatile moments, huge swings are compressed into the same candle size. The trader is left confused.
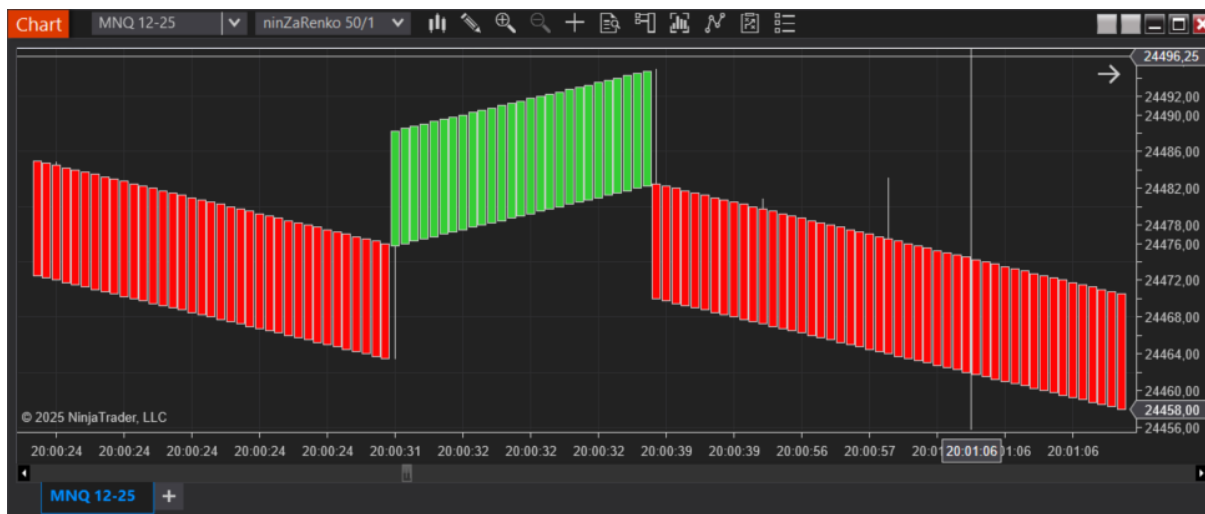
Picture 2. September 2025 - Renko chart 50/1 MNQ futures

The Renko Solution

Renko ignores time completely. It listens only to price. The chart moves when price moves, and stays still when price does not. Instead of drowning in meaningless ticks, you see only meaningful progress.
Imagine following the S&P500. On a 1-minute chart, you might see 50 candles in one quiet hour. On a 4-tick Renko chart, you might see just 6 or 7 bricks, each one showing a true directional shift. Less noise, more clarity.

Why Now

We live in the noisiest market era in history. High-frequency algorithms create false moves. Retail speculation floods markets with random orders. News cycles move faster than ever. Traders need a tool that filters the noise and highlights what truly matters. Renko is that tool.

Why NinjaTrader 8

Not every platform handles Renko correctly. Some "simulate" it by overlaying on time candles, which distorts results. NinjaTrader 8 (NT8) is professional-grade:

- **Tick-by-tick accuracy** for Renko bricks.

- **Replay features** to review trades brick by brick.

- **Strategy Analyzer** to backtest and refine ideas.

- **Customizable ATM strategies** to automate stop/target management.

With NT8, Renko becomes more than a chart—it becomes a **framework for professional trading**.

The Mindset Shift

Renko teaches patience. Instead of chasing every tick, you wait for a brick to close. Instead of counting minutes, you focus on movement. Instead of trading chaos, you build **bricks of consistency**.
Renko is not about predicting the future—it is about structuring your trading so you can see clearly, act decisively, and manage risk consistently.

Picture 3. September 2025 - Renko chart 5/1 MNQ futures. Clear uptrend and multiple entry points

Chapter 2 – Renko 101: What You Must Know

Renko is simple in theory, but you must master its mechanics before trusting it with real money.

What Is a Renko Brick?

A Renko brick is a block of price action formed when the market moves a set distance (the **brick size**). For example: If the brick size is 10 ticks, a new up-brick forms only when price moves 10 ticks above the previous close.

A new down-brick forms when price moves 10 ticks lower.

If price moves 8 ticks and then reverses, no brick prints. That movement is ignored (**unless the system uses WICKS).**

This is why Renko filters noise. Only meaningful movement matters.

Picture 4. CL 10-25 - Renko 5/1 - The double wick confirms a reversal trend.

Brick Size Options

1º **Fixed Brick Size** – You choose a constant size (e.g., 4 ticks on ES). Simple, repeatable, and great for systematic testing.

2º **ATR-Based Bricks** – Adjusts dynamically based on volatility. Adaptive, but harder to backtest consistently.

For most traders, fixed bricks are the starting point. Later we would talk about combinng fixed bricks and different sizes.

Picture 5 - September 2025 - MNQ diferent sizes renko charts combined for extra accurated information

Strengths of Renko

- **Noise Reduction** – Small fluctuations disappear.
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- **Clearer Trends** – Uptrends and downtrends appear as staircases.
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- **Support/Resistance Visibility** – Levels stand out more cleanly.
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- **Discipline Aid** – Waiting for bricks slows down impulsive decisions.
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Limitations

- **Repainting Unfinished Bricks** – If price reverses before a brick completes, it disappears. Always wait for bricks to close.
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- **No Time Awareness** – You don't know if a move took 5 minutes or 5 hours.
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- **Gap Risk** – Sudden jumps in price can create missing levels.
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Vocabulary

- **Brick Size** – The price distance needed for a new brick.
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- **Reversal Brick** – Requires price to move 2× the brick size in the opposite direction.
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- **Swing High/Low** – Clear turning points made of bricks.
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- **Trend Staircase** – Series of consecutive bricks forming a trend.
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Comparison to Other Charts

- **Candlesticks:** Show every tick of time, full of noise.
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- **Heikin Ashi:** Smooth trends, but still tied to time.
-
- **Renko:** Ignores time, shows only price progress.
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- Picture 6. September 25 - Different kinds of charts representation. Renko is the most clear visually

Golden Rule

Never trade incomplete bricks. Professionals wait. Amateurs guess.

Chapter 3 – NinjaTrader 8 Setup for Renko

To trade Renko professionally, your platform must be set up correctly. NinjaTrader 8 offers everything you need, but only if you configure it properly. We have acomplete manual under request.

Installing NT8

Download from the official NinjaTrader website.

- Use a machine with at least 16 GB RAM and SSD storage for best performance.

- Connect to a tick-level data feed: Kinetick, Rithmic, or CQG. Without tick data, Renko will be inaccurate.

Creating a Clean Workspace

1º Open NT8 → New Workspace → "Renko_Trading."

2º Add a chart → Select "Renko" bar type.

3º Set your brick size (start small: ES = 4 ticks, NQ = 8 ticks, CL = 6 ticks, 6E = 5 ticks).
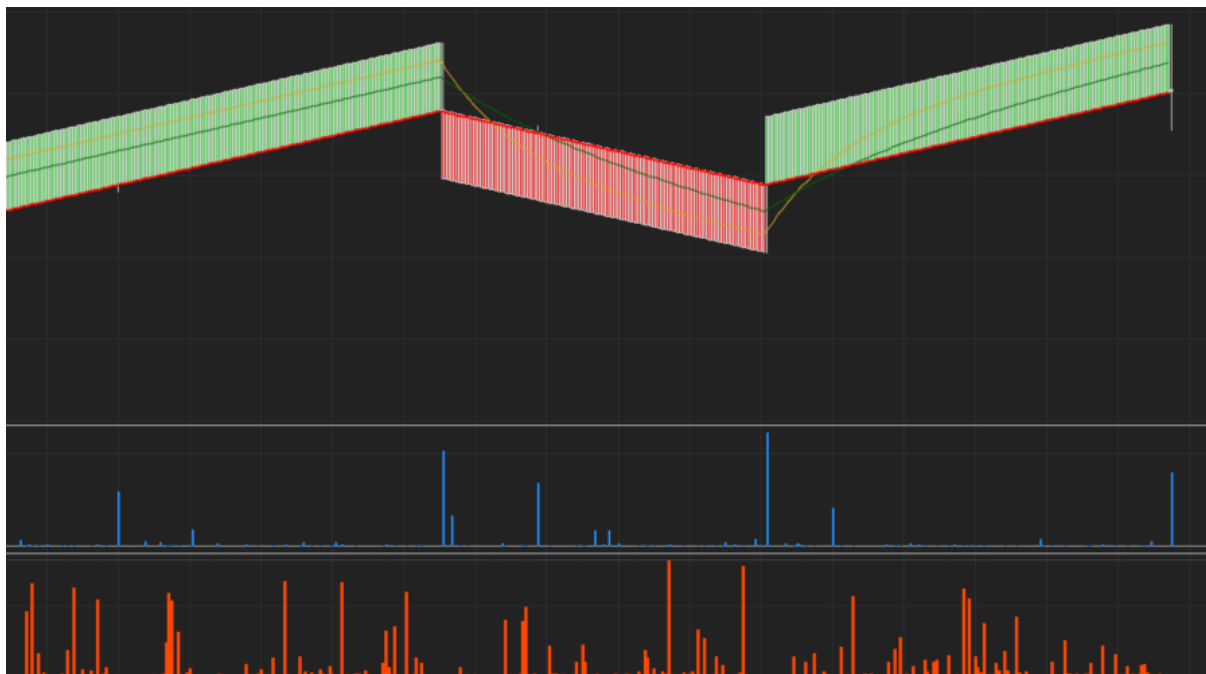
4º Apply neutral colors: green for up, red for down, white background.

Adding Indicators

Keep it simple:
- EMA 50 and EMA 200 – Trend filters.

- RSI(14) – Overbought/oversold conditions.

- MACD – Momentum.

- ATR – Volatility awareness.

Save as a **template** so you can reapply instantly.

Picture 7. Renko charts and added indicators to add information

Optimizing Performance

- Limit history to 30–60 days per chart.
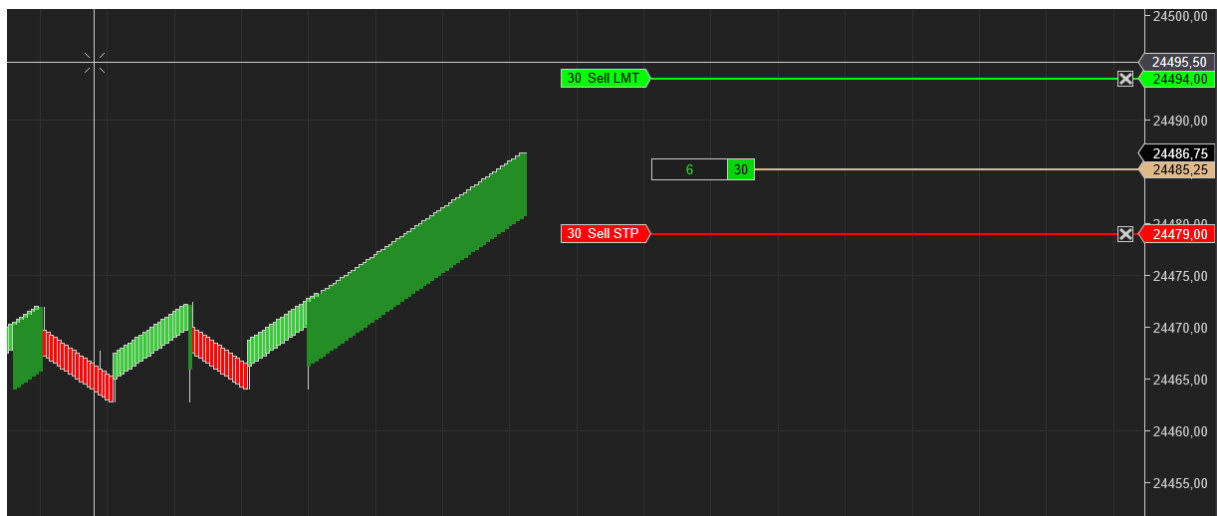
- Use Tick Replay only for backtesting, not live.

- Close unused workspaces.

ATM Strategies

Advanced Trade Management templates let you automate stops and targets:

- Example for ES: Stop = 10 ticks, Target1 = 12 ticks, Target2 = 20 ticks.

- Add Auto-Breakeven after +10 ticks.

- Add Auto-Trailing for runners.

Save two ATMs: one for scalping, one for trend following.

Picture 8. September 25 - ATM strategy placed. Visually clear trailing close to the bottom

Pro Tips

- Keep one "naked" chart with no indicators for clarity.

- Create separate workspaces for testing, trading, and reviewing.

- Back up templates weekly.

Chapter 4 – Brick Size Mastery: The Engine of Renko

Brick size determines everything. Too small, and you drown in noise. Too large, and you miss opportunities.

Why Brick Size Matters

- Controls how many trades you see.

- Defines your stop-loss size.

- Influences your profit targets.

Fixed vs ATR

Fixed = Consistency.
ATR = Adaptability.
Start with fixed.

Calibration Method

1º Choose your market.

2º Test three sizes (small, medium, large).

3º Review two weeks of data.

4º Select the size where swings are clear and trades are frequent enough.

Examples:

- ES: 4, 6, 8 ticks.

- NQ: 8, 10, 12 ticks.

- CL: 6, 8, 10 ticks.

Risk and Targets

Always think in bricks:

- Stop = 2 bricks.

- Target 1 = 3 bricks.

- Target 2 = 5 bricks.
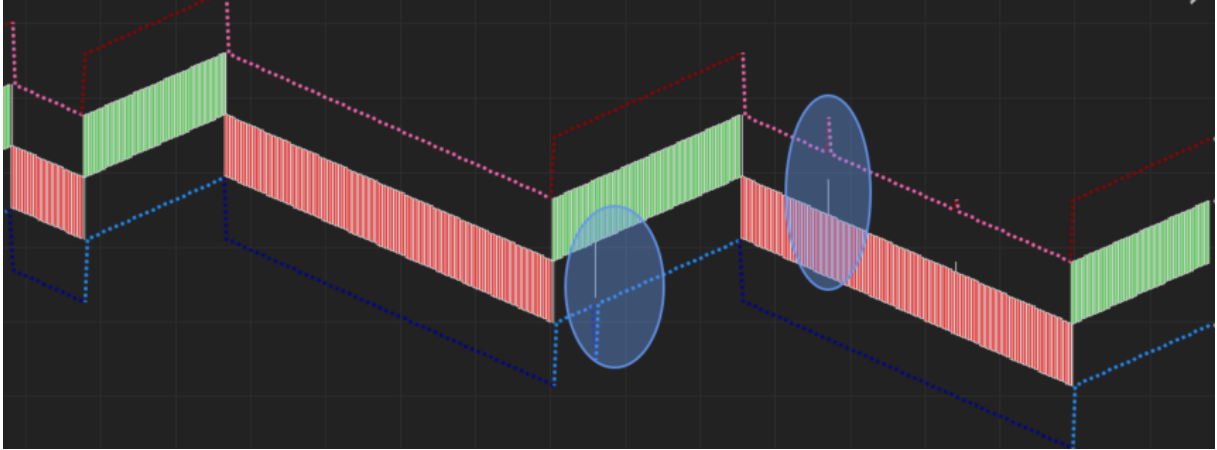
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- Picture 9. CL - September 25 -Appropriate renko brick size gets to identify false reversals.

Practical Exercise

Spend a week testing brick sizes on your chosen instrument. Print screenshots, annotate, and journal. Brick size mastery separates amateurs from professionals.

Chapter 5 – Core Strategies (Step-by-Step Rules)

Renko shines when paired with clear strategies. Below are four core systems. Each includes **setup, entry, stop, target, and management rules**.

5.1 Trend-Following Foundation (EMA + Structure)

- **Indicators:** EMA 50, EMA 200, RSI(14).

- **Setup:** Price above EMA200 (bull trend). Wait for pullback to EMA50.

- **Entry:** First up-brick closing above last swing high.

- **Stop:** 2 bricks below entry.

- **Target:** 3–5 bricks.

- **Management:** Scale out at 3 bricks, trail stop for runner.

5.2 Breakout of Structure (Range → Trend)

- Identify sideways range with clear support/resistance.

- Wait for 2 bricks closing outside the range.

- **Entry:** Third confirming brick.

- **Stop:** Inside the range.

- **Target:** At least 3 bricks.

Avoid fakeouts by checking RSI or MACD for confirmation.

5.3 Momentum Scalps (Renko + MACD/RSI)

- Look for MACD crossover + RSI breakout.

- Enter with the confirming Renko brick.

- Tight stop (1.5–2 bricks).

- Small target (2–3 bricks).

High win rate, but discipline is essential—don't chase late moves.

5.4 Mean Reversion (Ranges & Pullbacks)

- Use RSI (70/30) and Bollinger Bands.

- Enter short at overbought resistance, long at oversold support.

- Stop = 2 bricks outside.

- Target = 2–3 bricks.

Best during low-volatility, sideways markets.
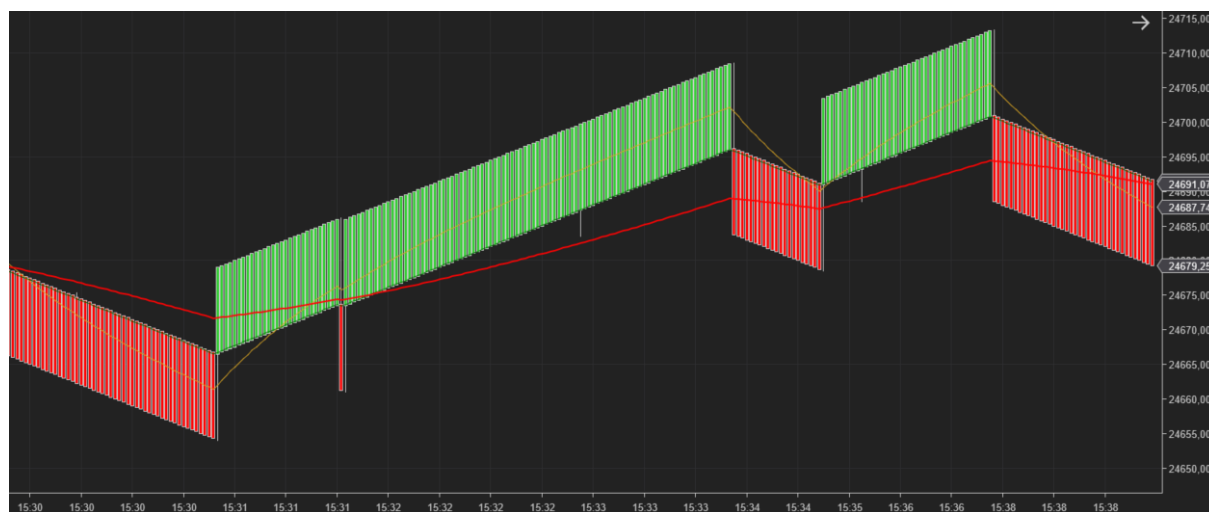
Picture 10. September 25 - NY opening. The very first 8 minutes NQ moves 100 points into steps of 50.

Chapter 6 – Risk, Money, and Trade Management

The difference between amateurs and professionals is not strategy—it's **risk management**.

6.1 Fixed % Risk

Never risk more than **0.5–1% of your account** per trade. (BIG numbers law)

6.2 Position Sizing Formula

Position Size = (Account Risk per Trade) ÷ (Stop in ticks × Tick Value).
Example: $50,000 account, 0.5% risk = $250.
Stop = 10 ticks, Tick Value = $12.50 → Max contracts = 2.

6.3 Daily Loss Cap

Stop trading after 3 consecutive losses or -2% of account in one day. Protect your capital and your mindset.
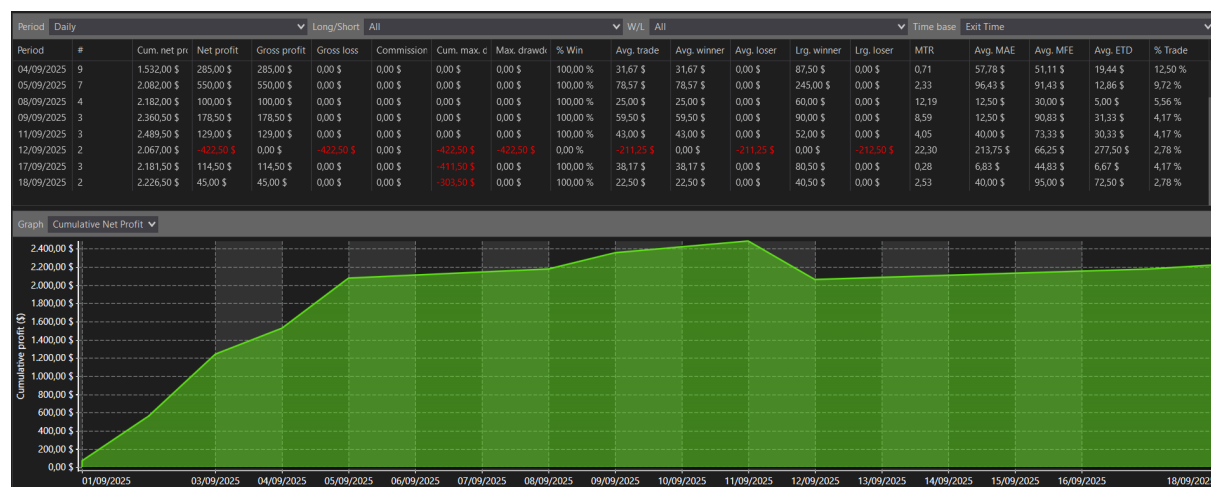

6.4 Trade Management

- Move stop to breakeven after +2 bricks.
- Scale partial at Target 1, let runner aim for Target 2.
- Use trailing stops for trends.
- ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

6.5 Journal Metrics

Track:
- Win rate.

- Average R multiple.

- MAE (Maximum Adverse Excursion).

- MFE (Maximum Favorable Excursion).

Without risk management, strategies don't matter. With it, even simple setups become profitable.


Period	Daily								W/L	All						Time base	Exit Time		
Period	#	Cum. net pr	Net profit	Gross profit	Gross loss	Commission	Cum. max. d	Max. drawd	% Win	Avg. trade	Avg. winner	Avg. loser	Lrg. winner	Lrg. loser	MTR	Avg. MAE	Avg. MFE	Avg. ETD	% Trade
04/09/2025	9	1.532,00 $	285,00 $	285,00 $	0,00 $	0,00 $	0,00 $	0,00 $	100,00 %	31,67 $	31,67 $	0,00 $	87,50 $	0,00 $	0,71	57,78 $	51,11 $	19,44 $	12,50 %
05/09/2025	7	2.082,00 $	550,00 $	550,00 $	0,00 $	0,00 $	0,00 $	0,00 $	100,00 %	78,57 $	78,57 $	0,00 $	245,00 $	0,00 $	2,33	96,43 $	91,43 $	12,86 $	9,72 %
08/09/2025	4	2.182,00 $	100,00 $	100,00 $	0,00 $	0,00 $	0,00 $	0,00 $	100,00 %	25,00 $	25,00 $	0,00 $	60,00 $	0,00 $	12,19	12,50 $	30,00 $	5,00 $	5,56 %
09/09/2025	3	2.360,50 $	178,50 $	178,50 $	0,00 $	0,00 $	0,00 $	0,00 $	100,00 %	59,50 $	59,50 $	0,00 $	90,00 $	0,00 $	8,59	12,50 $	90,83 $	31,33 $	4,17 %
11/09/2025	3	2.489,50 $	129,00 $	129,00 $	0,00 $	0,00 $	0,00 $	0,00 $	100,00 %	43,00 $	43,00 $	0,00 $	52,00 $	0,00 $	4,05	40,00 $	73,33 $	30,33 $	4,17 %
12/09/2025	2	2.067,00 $	-422,50 $	0,00 $	-422,50 $	0,00 $	-422,50 $	-422,50 $	0,00 %	-211,25 $	0,00 $	-211,25 $	0,00 $	-232,50 $	22,30	213,75 $	66,25 $	277,50 $	2,78 %
17/09/2025	3	2.181,50 $	114,50 $	114,50 $	0,00 $	0,00 $	-411,50 $	0,00 $	100,00 %	38,17 $	38,17 $	0,00 $	80,50 $	0,00 $	0,28	6,83 $	44,83 $	6,67 $	4,17 %
18/09/2025	2	2.226,50 $	45,00 $	45,00 $	0,00 $	0,00 $	-303,50 $	0,00 $	100,00 %	22,50 $	22,50 $	0,00 $	40,50 $	0,00 $	2,53	40,00 $	95,00 $	72,50 $	2,78 %

Picture 11. September 25 - Trade performance on -MNQ. The paramount importance that losses are part of it.

Chapter 7 – Psychology: Calm Execution in a Noisy Market

Renko cleans the chart—but you must clean your mind. Trading psychology is the true battlefield.
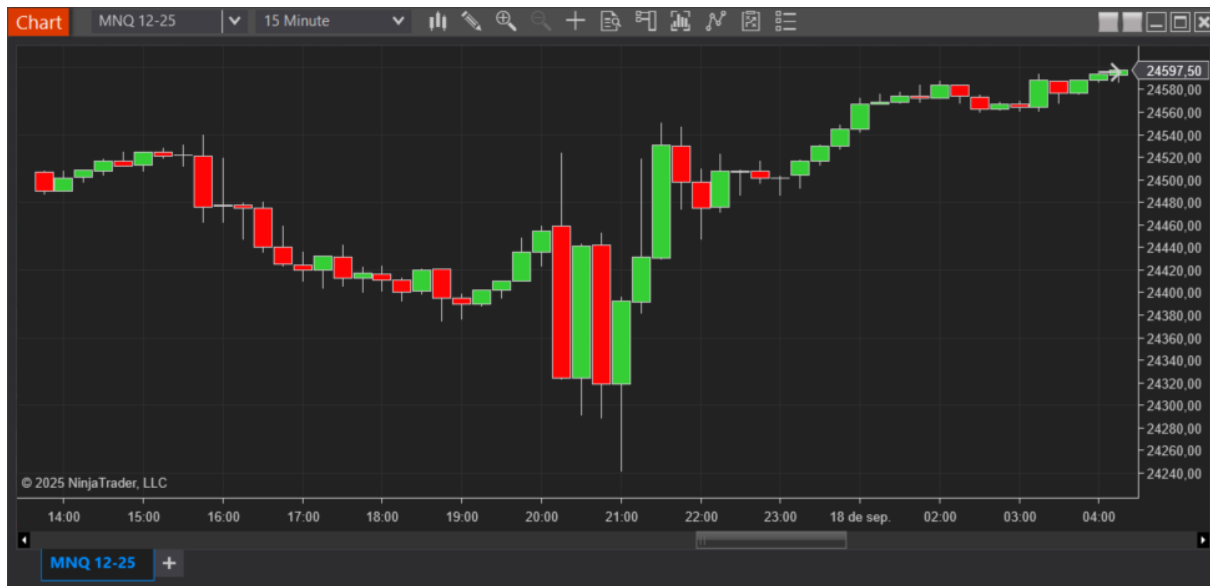
Picture 12. September 25 - Completelly trap before «hour of power» last 17 September

7.1 Why Renko Helps

By filtering noise, Renko reduces **decision fatigue**. Fewer signals = fewer emotional mistakes.

7.2 Rules for Calm Execution

- Trade only **closed bricks**.

- Pre-market routine: review news, calibrate mindset.

- Pre-trade checklist: trend direction, setup, risk, entry.

- Post-trade journal: screenshot, reason, outcome.

7.3 Avoiding Emotional Traps

- Revenge trading → stop after 2 losses.

- Over-optimization → don't constantly change brick size.

- Fear of missing out → remember there will always be another brick.

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- Picture 13. September 25 - Price approaching to the previous reversal zone. FOMO
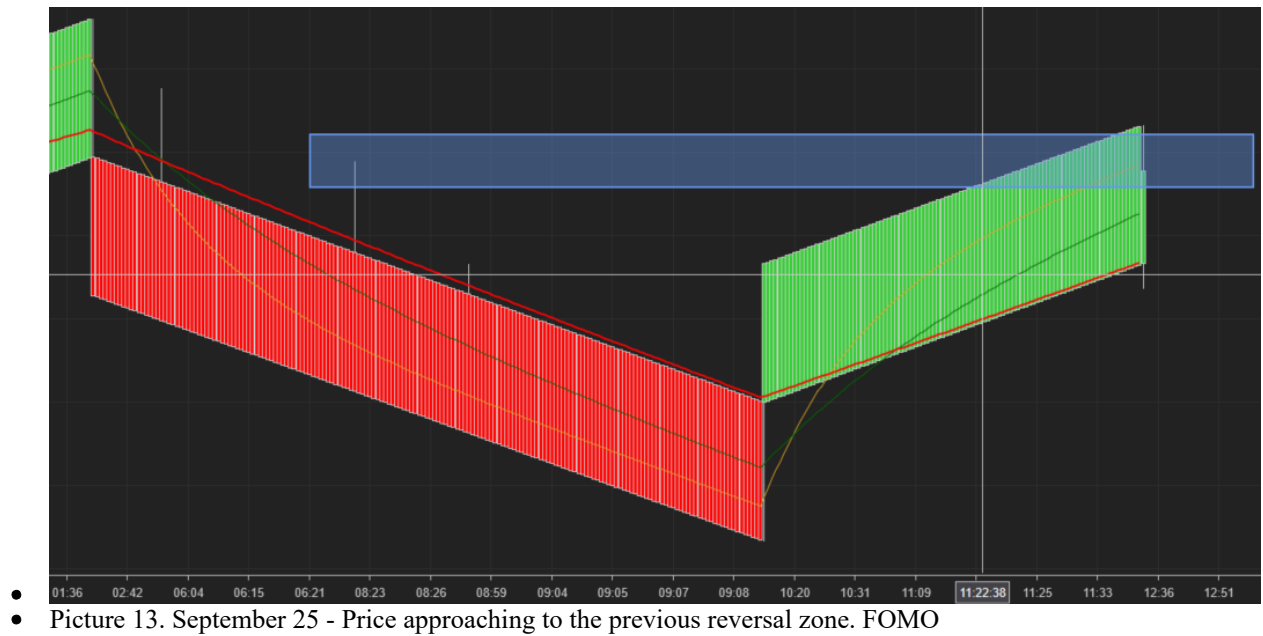
7.4 The Mindset of Patience

Think like a bricklayer. Each brick is one step. Build a wall of consistency, not a house of luck.

# Chapter 8 – Backtesting, Forward Testing & Optimization in NT8

Without testing, you are gambling. With testing, you are building a business.

8.1 Tick Data Is Essential

Renko depends on tick-level movement. Minute data will distort results. Always use tick data.

8.2 Strategy Analyzer Workflow

1º Define your strategy.

2º Run backtest with tick data.

3º Analyze results (win %, profit factor, drawdown).

4º Refine brick size, stops, targets.
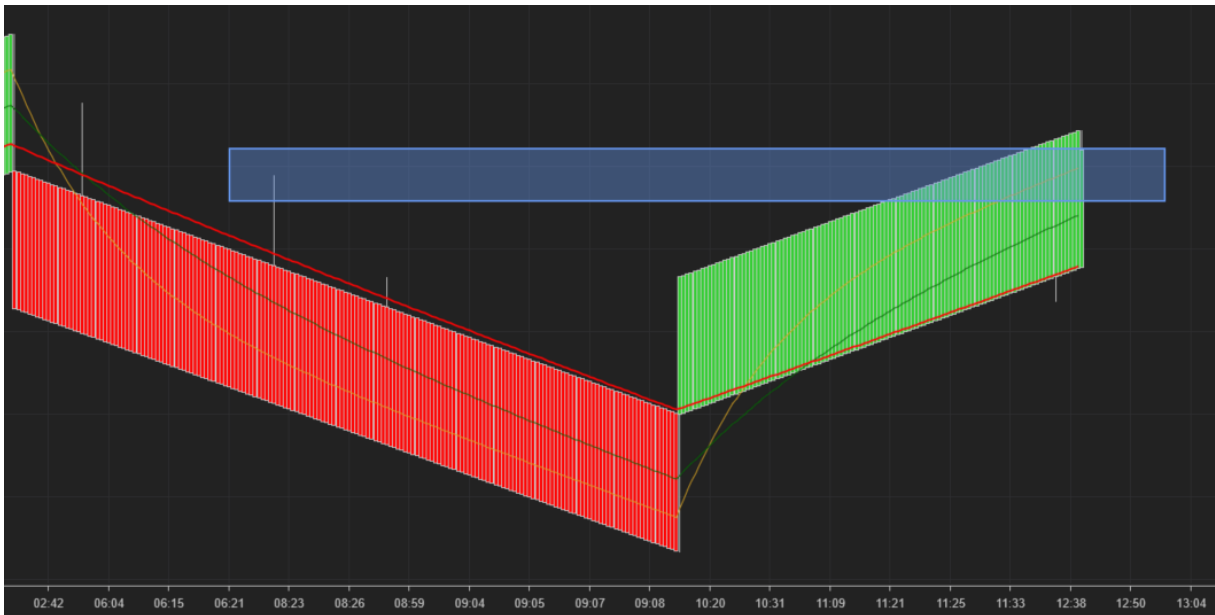
Picture 14. September 25 - Once the FOMO is gone, we calmly review and check entry point after confirmation.

8.3 Walk-Forward Testing

Split your data:
- **In-sample:** used to build strategy.

- **Out-of-sample:** used to test robustness.

8.4 Forward Testing

Sim trade 30–50 trades before going live. Log results. Only trade live after consistent positive expectancy.

Chapter 9 – Professional Workflow: Plans, Journals, Metrics

9.1 One-Page Trading Plan

Include:
- Instruments traded.

- Brick size.

- Strategy rules.

- Risk per trade.

- Daily routine.

9.2 Journal Framework

For every trade: screenshot, entry reason, exit reason, emotional state.

9.3 Weekly Review

- Best trades.

- Worst trades.

- Adjustments needed.

9.4 Metrics to Track

- Win rate.

- Average R.

- Expectancy.

- Max drawdown.

Chapter 10 – Case Studies & Sample Trade Plans

10.1 Case Study: Noise → Clarity

When a trader used 5-min candles on ES. He overtraded 30 times a day. Switching to Renko 4 ticks, he now takes 5 focused trades, with better win rate and less stress.

10.2 Case Study: Avoiding False Breakouts

A range on NQ produced 3 fake breakouts on a 1-min chart. On Renko 10 ticks, only the true breakout survived the confirmation rule.

10.3 Sample Trade Plan

- Instrument: ES Futures

- Brick Size: 4 ticks

- Setup: EMA pullback

- Entry: closed brick + momentum confirmation

- Stop: 2 bricks

- Target: 3–5 bricks

- Risk: 0.5% per trade

Chapter 11 – Quick Start: Your 7-Day Renko Sprint

Get hands-on quickly.

- **Day 1:** Install NT8, set up workspace.

- **Day 2:** Test brick sizes.

- **Day 3:** Create ATM strategies.

- **Day 4:** Choose one core strategy.

- **Day 5:** Trade in SIM, log results.

- **Day 6:** Review trades.

- **Day 7:** Refine process.

By the end of one week, you'll be trading Renko with structure and purpose.

"The strongest traders are not the fastest, but the most patient."

Chapter 12 – Appendices

Glossary

- **ATR:** Average True Range.

- **EMA:** Exponential Moving Average.

- **MAE/MFE:** Maximum Adverse/Favorable Excursion.

- **PF:** Profit Factor.

Checklists

- **Pre-Market:** News, brick size, mental readiness.

- **Pre-Trade:** Trend, setup, risk, entry trigger.

- **Execution:** Place order, set stop/target, follow plan.

Templates

- Journal table.

- Trade plan sheet.

- Brick size calibration worksheet.

Final Words

Renko is not magic—it is a **lens**. It strips away noise and shows you the market's heartbeat. But discipline, risk management, and psychology are still the real keys.
Your journey will not be about finding perfect trades—it will be about building **consistent bricks of progress**.
Trade patiently, log every brick, refine endlessly.
Brick by brick, consistency is built.

At www.ermacademy.com our experts team can improve your Ninja Trader performance and renko trading.