

Pure Market-Making Strategy: NATR + MACD + Inventory Control

1. Approach

We post buy and sell limit orders around the mid-price every 15 seconds.

We adjust our spreads and skew based on three simple signals:

- Volatility (NATR): Wider spreads in volatile markets, tighter in calm ones.
- Trend (MACD): Lean into the move—buy more during up-trends, sell more during down-trends.
- Inventory: If we hold too much ETH or USDT, adjust spreads to encourage the opposite side and return to balance.

2. Assumptions & Trade-offs

- We use 30×1 -minute bars for volatility and trend.
- A 15-second refresh rate balances responsiveness vs. load.
- Fees and slippage are ignored; real deployment needs tuning.

3. Risk Management

- Adaptive Spreads: Volatility sizing protects against swings.
- Trend Skew: Avoids losses when markets trend.
- Inventory Penalty: Keeps position near zero.
- Non-Crossing Quotes: Never cross best bid/ask or <1 bp.

4. Why It Works

- Each signal addresses a distinct risk: turbulence, trend, inventory.
- Combines into a lightweight, easy-to-run script.
- Based on proven market-making concepts.

Bottom line: Balanced, adaptive two-sided quoting with risk control for 1-minute crypto markets.