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# Bet MACD Probability 5 Strategy Manual

#### Introduction

\*\*BetMACDProbability5\*\* is a custom NinjaTrader 8 strategy developed by Bars Edge Trader. It is designed to identify potential trading opportunities based on MACD (Moving Average Convergence Divergence) crossovers, combined with filters from RSI (Relative Strength Index), SMA (Simple Moving Average), ATR (Average True Range), and price movement thresholds. The strategy aims to enter long or short positions when conditions suggest a high-probability reversal or momentum shift, while incorporating time-based trading windows (timers), dynamic stop-loss/profit-target calculations, and overall profit/loss clamping to manage risk.

The strategy operates on price change (Calculate.OnPriceChange) and is suitable for instruments like futures (e.g., ES, NQ) on intraday charts.

## NOTES;

- This strategy is for educational and discretionary use. Back-test thoroughly before live trading.

Audio alert will sound at every MACD cross but the entries will also depend on the SMA and ATR filters, you may get an alert but NO entries.

Setup. For all futures markets, a 5-minute timeframe has proven effective across both high- and low-volatility environments. This setup balances responsiveness and reliability.

Timers, the strategy includes three sequential 24-hour timers, which can be configured based on prior market research to optimize entry times during intraday sessions. For example:

Avoid trading during high-impact events like FOMC announcements (e.g., at 2:00 PM ET), U.S. administration press conferences, or economic releases such as PCE, CPI, or oil inventory reports by timing out of the market. Timers automatically reset at the start of each trading day. As traders, our primary control over the market is the timing of our entries—use these timers strategically to align with favorable conditions.



- The timers are sequential and must be operated 1 then 2 then 3 anything else will cause an error.
- All Timers are Sequential 24 hour timers, all logged data including P&L data will reset on new trading day, So if you are using a timer to run 5 PM to 7 AM, all your calculation data will reset at 12:00:01 AM when the system gets a new New-Trading-Day reset from NinjaTrader.
- The strategy uses ATR "Average True Range" to calculate profit and loss, for beginners and novices this may prove advantageous for you. You will not have to worry if you are getting the best targets the system will figure it out for you, just setup the range.
- The algorithm's dynamic nature simplifies the optimization process by automatically adjusting internal filters.
- Regularly monitor performance to ensure alignment with market conditions.
- Emailing may not be processed depending on what else the system is doing.
- The Max Profit and Max Loss looks at unrealized profit + total profit during an entry and will clamp and stop trading if the unrealized profit + total profit are equal or greater than the settings.
- The total P and L used for the strategy will reset on new session Bar 0.
- Data calculation is done on Price Change and does NOT require TICK REPLAY, do not enable it.
- Enable End of Session is only used for canceling all entries if the Broker does not support TIF. If you need to use this set it several minutes prior to intraday market close. This will reset when the time is less than the reset time or on new session.
- All timers use NinjaTrader's time setup, if you have chosen CME it will use CME time.

## Market Cycle Considerations

- The strategy assumes the market cycle (recurring patterns) during the next trading day aligns with the back-tested period.
- If consecutive losses occur, it may indicate a shift in market cycles. Adjust the chart update time (e.g., from 5 minutes to 4 minutes or 2000 ticks to 2500 ticks) to adapt.



## **Key Features:**

- MACD crossover-based entries with RSI, SMA, ATR, and price filters.
- Three configurable trading timers to restrict entries to specific session periods.
- ATR-based or fixed-tick stop-loss and profit-target options.
- Global profit/loss clamps to halt trading after reaching max win/loss thresholds.
- Alerts (sound and visual) for MACD crossovers.
- Email notifications for entries and P&L updates.
- Customizable data display on the chart.
- End-of-session exit logic.

#### **Vendor Information:**

• Name: Bars Edge Trader

Strategy: BetMACDProbability5
Website: <a href="www.barsedgetrader.com">www.barsedgetrader.com</a>
Support: <a href="support@barsedgetrader.com">support@barsedgetrader.com</a>

• Last Update July 1, 2025

#### Installation

- 1. \*\*Prerequisites:\*\*
  - NinjaTrader 8 installed (version 8.0 or later recommended).

## 2. Import the Strategy:

## Import into NinjaTrader 8:

- Open NinjaTrader 8.
- Navigate to Tools > Import > NinjaScript Add-On.
- Select the downloaded BetMACDProbability5 file.
- Follow the prompts to complete the import.



### 3. Add to Chart:

- Open a chart for your instrument (e.g., ES 09-25 on a 5-minute timeframe).
- Right-click > Strategies > Add > Select "BetMACDProbability5".
- Configure parameters (see below) and enable.

## 4. Backtesting/Analysis:

- Use Strategy Analyzer for historical testing.
- Note: The strategy requires at least 30 bars to trade (`BarsRequiredToTrade = 30`).

#### 5. Live Trading:

- Enable in a live or sim account only after thorough testing.
- Ensure email settings are configured in NinjaTrader (Tools > Options > Email).

#### **Parameters**

The strategy exposes numerous parameters grouped by category. Defaults are set in the code, but customize based on your instrument and risk tolerance.

### **MACD Parameters**

- \*\*Fast Period\*\* (Default: 12): Fast EMA period for MACD.
- \*\*Slow Period\*\* (Default: 26): Slow EMA period for MACD.
- \*\*Smooth Period\*\* (Default: 9): Signal line (Avg) period for MACD.
- \*\*MACD Color\*\* (Default: DarkCyan): Color for MACD line plot.
- \*\*Avg Color\*\* (Default: Crimson): Color for MACD Avg (signal) line plot.
- \*\*Diff Color\*\* (Default: DodgerBlue): Color for MACD histogram plot.



- \*\*SMA Period\*\* (Default: 10): Period for the Simple Moving Average filter.
- \*\*SMA Plot Color\*\* (Default: Gold): Color for SMA line on chart.

#### ATR Parameters

- \*\*ATR Period\*\* (Default: 14): Period for Average True Range.
- \*\*ATR Multiplier\*\* (Default: 0.5): Multiplier for price change filter (price change must be >= ATRMultiplier \* ATR[0]).
- \*\*ATR Min CutOff\*\* (Default: 2): Minimum ATR value required for entries (prevents trading in low-volatility conditions).
- \*\*ATR Plot Color\*\* (Default: DarkCyan): Color for ATR line if enabled.
- \*\*Enable ATR on Chart\*\* (Default: True): Displays ATR indicator on the chart

### **Display Data Parameters**

- \*\*Display Data Bottom Right\*\* (Default: True): Shows strategy data (e.g., Bullish/Bearish signals, RSI, ATR) in bottom-right corner.
- \*\*Display Data Top Right\*\* (Default: False): Top-right display.
- \*\*Display Data Top Left\*\* (Default: False): Top-left display.
- \*\*Display Data Bottom Left\*\* (Default: False): Bottom-left display.
- \*Note:\* Only one display option should be enabled; the code auto-resets if multiple are checked.

#### **System Parameters**

- \*\*Max Profit Clamp \$\*\* (Default: 500): Total session profit threshold; exits all positions and stops trading if reached.
- \*\*Max Loss Clamp \$\*\* (Default: -500): Total session loss threshold; exits all positions and stops trading if reached.
- \*\*End of Session Close All Entries\*\* (Default: 15:45): Time to exit all positions at session end.
- \*\*Enable End Of Session Time\*\* (Default: False): Enables the end-of-session exit.



- \*\*Email Address\*\* (Default: "customer@winners.com"): Recipient for email alerts.
- \*\*Enable Email on Entries & PnL\*\* (Default: False): Sends emails on entries and PnL updates.

### System Alert Parameters

- \*\*Enable MACD Sound Alert\*\* (Default: False): Enables sound alerts for MACD crossovers.
- \*\*Alert Sound File\*\* (Default: "\sounds\Alert1.wav"): Path to alert sound file (relative to NinjaTrader install dir).
- \*\*Arrow Color Long\*\* (Default: Green): Color for long entry arrows.
- \*\*Arrow Color Short\*\* (Default: Red): Color for short entry arrows.
- \*\*Alert Back Ground Color\*\* (Default: Blue): Background color for alert messages.
- \*\*Alert Text Color\*\* (Default: White): Text color for alert messages.

### System Profit Loss

- \*\*Enable ATR Profit & Loss\*\* (Default: True): Uses ATR-based stops/targets; if false, uses fixed ticks.
- \*\*Order\_Quantity Time ATR 1/2/3\*\* (Defaults: 1): Contracts/shares per entry for each timer period (when ATR enabled).
- \*\*Stop Loss ATR Multiplier Time 1/2/3\*\* (Defaults: 1 / 0.8 / 0.9): ATR multiplier for stoploss in each timer.
- \*\*Profit Target ATR Multiplier Time 1/2/3\*\* (Defaults: 1.5 / 1.2 / 1.4): ATR multiplier for profit-target in each timer.
- \*\*Order\_Quantity Timer 1/2/3\*\* (Defaults: 1): Contracts/shares per entry for each timer (when ATR disabled).
- \*\*Profit\_Target Timer 1/2/3\*\* (Defaults: 50 / 55 / 60 ticks): Fixed profit target in ticks.
- \*\*Stop\_Loss\_Target Timer 1/2/3\*\* (Defaults: 30 / 35 / 40 ticks): Fixed stop-loss in ticks.



#### Timer Parameters

- \*\*Timer 1 Start/End\*\* (Defaults: 08:30 / 10:30): First trading window.
- \*\*Timer 1 Brush/Opacity\*\* (Default: DodgerBlue / 10): Color and transparency for timer rectangle on chart.
- \*\*Timer 2 Start/End\*\* (Defaults: 10:31 / 13:00): Second window.
- \*\*Enable Timer 2\*\* (Default: True): Enables Timer 2.
- \*\*Timer 2 Brush/Opacity\*\* (Default: ForestGreen / 10): Color/transparency.
- \*\*Timer 3 Start/End\*\* (Defaults: 13:01 / 15:10): Third window.
- \*\*Enable Timer 3\*\* (Default: True): Enables Timer 3.
- \*\*Timer 3 Brush/Opacity\*\* (Default: Crimson / 10): Color/transparency.
- \*Note:\* Timers must not overlap; the code auto-resets if they do an error will display

#### **How It Works**

## **Entry Logic**

- \*\*Long Entry:\*\*
- MACD bullish crossover (MACD > Avg after being <=).
- RSI[0] <= 70 (not overbought).
- Close[0] >= SMA[0] (above moving average).
- Price change (Abs(Close[0] Close[1])) >= ATRMultiplier \* ATR[0].
- ATR[0] >= ATRMinCutOff.
- Within an active timer (1, 2, or 3).
- Market is flat (no open position), and not in a "running entry" state.
- \*\*Short Entry:\*\* Opposite conditions (bearish crossover, RSI >=30, Close <= SMA, etc.).
- Entries draw arrows on the chart and use dynamic stops/targets based on parameters.
- Only one entry per direction; waits until flat before next.



- \*\*Profit Target/Stop Loss:\*\* Set per entry using ATR or ticks.
- \*\*Max Profit/Loss Clamp:\*\* Monitors unrealized + realized PnL; exits all if thresholds hit.
- \*\*End of Session:\*\* Exits all if enabled and time reached.
- \*\*Timer End:\*\* No new entries outside timers, but open positions continue until hit stops/targets or clamps.

#### **Timers**

- Restrict entries to specific times (e.g., avoid lunch hours).
- Draws semi-transparent rectangles on the chart for visual feedback.
- Each timer can have unique quantity/stop/target settings.

#### Alerts and Notifications

- Sound/visual alerts on crossovers (if enabled).
- Emails on entries (price/time/instrument) and PnL updates (if enabled).

#### Data Display

- Shows real-time info like signals, RSI, ATR, price change, and session progress in chosen chart corner.

## **Usage Tips**

- \*\*Timeframe/Instrument:\*\* Best on volatile instruments like equity futures (e.g., 5-15 min charts). Adjust ATR Min CutOff for low-vol markets.
- \*\*Risk Management:\*\* Set conservative max loss (e.g., 1-2% of account). Use small quantities initially.
- \*\*Optimization:\*\* Backtest in Strategy Analyzer, varying MACD periods, ATR multipliers, and timers.



- \*\*Live Monitoring:\*\* Watch for error texts (e.g., timer overlaps) on chart.
- \*\*Customization:\*\* Uncomment divergence/probability code if desired (requires implementation).
- \*\*Performance:\*\* Avoid over-optimization; focus on out-of-sample testing.

## **Troubleshooting**

- \*\*No Entries:\*\* Check timers (ensure current time is within), ATR >= min, and filters met. Verify `ChartLoaded` (strategy on chart).
- \*\*Overlapping Timers:\*\* Auto-resets to defaults; displays red error text.
- \*\*Multiple Data Displays: \*\* Auto-disables extras; error shown.
- \*\*Emails Not Sending:\*\* Configure NinjaTrader email settings; test with valid address.
- \*\*Compilation Errors:\*\* Ensure no syntax issues; code is stateful (uses OnStateChange for setup).
- \*\*PnL Issues:\*\* Uses `Position.GetUnrealizedProfitLoss`; verify in real-time vs. analyzer (analyzer may differ).

# **Best Practices**

- **Test in Simulation**: Run the strategy in NinjaTrader's Market Replay or Sim101 account to evaluate performance before live trading.
- **Optimize Parameters**: Use the Strategy Analyzer to optimize EMA periods, ATR multipliers, and probability thresholds for your instrument.

#### **Disclaimer**

The **BetMACDProbability5** strategy is provided for educational and informational purposes only. It does not constitute financial advice. Always **back test** and validate the strategy's performance before using it in live trading. Trading involves significant risk, and past performance is not indicative of future results.

<sup>\*\*</sup>Contact:\*\* For issues (support@barsedgetrader.com).