

Macd Histogram Trend Rider

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Momentum / Trend Continuation

TIMEFRAME

H1 / H4 (adaptable)

WEBSITE

www.algotbot.live

⚠ Important Disclaimer This document is for educational and informational purposes only. It does not constitute financial or investment advice. Trading forex, CFDs, and other leveraged instruments involves substantial risk of loss and is not suitable for all investors. Past backtest performance does not guarantee future results. Never trade with capital you cannot afford to lose.

Overview

Macd Histogram Trend Rider is a momentum-trend continuation Expert Advisor. It watches the MACD histogram — the distance between the MACD line and its signal line — and treats a change of sign in that histogram as a fresh shift in momentum. A raw MACD crossover fires far too often in sideways markets, so every entry is filtered by a long-period trend EMA: the EA only acts on crossovers that agree with the dominant trend.

The result is a **pullback-resumption** strategy. Rather than trying to pick tops and bottoms, it waits for price to already be trending, lets momentum cool off during a retracement, and then enters when the histogram flips back in the trend's direction. Risk is sized dynamically from market volatility using ATR, and the EA holds only one position at a time per magic number, reversing when an opposing, trend-confirmed signal appears.

In one sentence: Buy when the MACD histogram crosses up *while price is above* the trend EMA; sell when it crosses down *while price is below* it — with an ATR stop and a reward-multiple target.

How It Works

Indicators used

- **MACD line** — the difference between a fast EMA and a slow EMA of the close (default 12 and 26).
- **Signal line** — an EMA of the MACD line (default period 9). The **histogram** is `MACD - Signal`.
- **Trend EMA** — a long EMA on the close (default 200) that defines the dominant direction.
- **ATR** — Average True Range (default 14) used to size the stop and target from current volatility.

Entry logic

On each newly completed bar, the EA computes the histogram for the last two closed bars and looks for a sign change (a MACD/signal crossover):

- **Cross up** — previous histogram ≤ 0 and current histogram > 0 .
- **Cross down** — previous histogram ≥ 0 and current histogram < 0 .

A crossover alone is not enough. It must be confirmed by the trend filter:

```
longSignal = crossUp AND close > trendEMA
shortSignal = crossDown AND close < trendEMA
```

This single filter discards the counter-trend crosses that produce most MACD false signals, leaving only entries that resume the direction of the dominant trend.

Example — long setup

Price has been trending up and trades comfortably above the 200 EMA. A minor pullback pushes the MACD histogram below zero. As buyers step back in, the histogram flips positive on the close of a bar. Because price is still above the trend EMA, the EA opens a

buy

at the next ask.

Exit logic — Stop Loss & Take Profit

Every position carries a fixed stop and target set at entry, both derived from ATR at the moment of the signal:

```
risk = AtrMultSl * ATR
reward = risk * RewardRatio

Buy : SL = price - risk   TP = price + reward
Sell: SL = price + risk   TP = price - reward
```

With the defaults (`AtrMultSl = 2.0` , `RewardRatio = 1.5`) the stop sits two ATR from entry and the target is 1.5× that distance, giving a 1 : 1.5 risk-to-reward profile that adapts automatically as volatility expands or contracts.

Position management & reversals

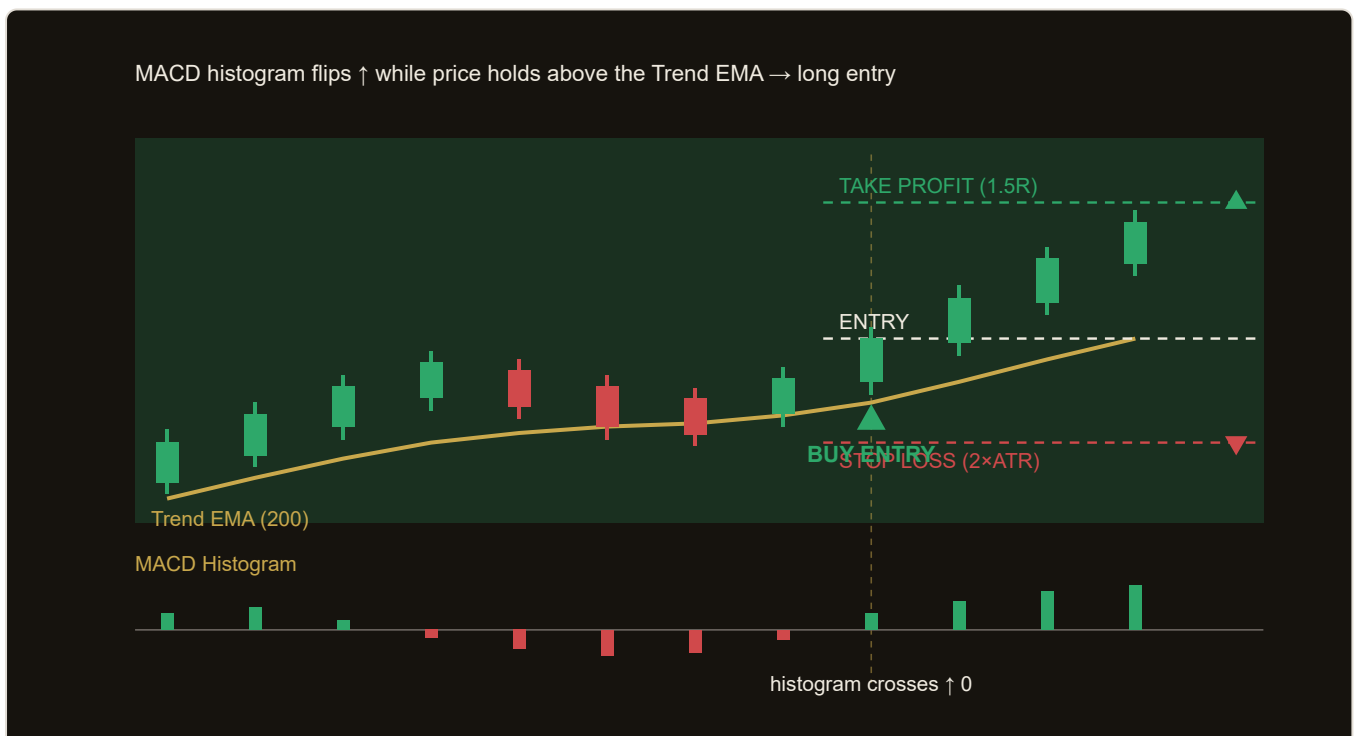
The EA keeps at most **one position at a time per magic number**:

- If a signal matches the position already open, it is ignored (no pyramiding).
- If an opposing, trend-confirmed signal appears, the current position is closed and a new one is opened in the new direction — an immediate reversal.

No repainting: the strategy only ever evaluates *completed* bars (shift 1). Signals are read once a bar closes, so a setup that appears mid-bar cannot vanish before the next tick.

Strategy in Action

The illustration below shows an example of how the strategy identifies a setup and triggers its entry and exit. This is a simplified, illustrative example for educational purposes — not real market data.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
FastPeriod	12	Fast EMA period of the MACD line. Range 5–20, step 1.
SlowPeriod	26	Slow EMA period of the MACD line. Range 20–60, step 2. Forced to be greater than FastPeriod.
SignalPeriod	9	EMA period of the signal line (an EMA of the MACD line). Range 5–15, step 1.
TrendPeriod	200	Period of the trend-filter EMA on close. Range 50–300, step 10.
AtrPeriod	14	ATR period used for volatility-based risk sizing. Range 7–30, step 1.
AtrMultSl	2.0	Stop-loss distance as a multiple of ATR (Stop = AtrMultSl × ATR). Range 1.0–4.0, step 0.25.
RewardRatio	1.5	Take-profit distance as a multiple of the stop (Target = Stop × RewardRatio). Range 0.5–3.0, step 0.25.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	1001	Magic number identifying this EA's positions (one position at a time per magic).

Recommended Settings

The defaults are a balanced starting point for liquid, trending instruments on intraday charts. Use the guidance below to adapt the EA to a given symbol and timeframe.

- **Markets:** works best on instruments that trend cleanly — major FX pairs, index CFDs, gold. Avoid tight, range-bound instruments where the trend filter rarely lines up with the crossover.
- **Timeframe:** H1 and H4 are natural homes for a 200-EMA trend filter. Lower timeframes generate more signals but more noise; raise `TrendPeriod` if you go faster.
- **MACD:** the classic 12 / 26 / 9 defaults are a good baseline. Shorten `FastPeriod` / `SignalPeriod` for quicker, twitchier entries; lengthen them to trade only the strongest momentum shifts.
- **Risk:** keep `RewardRatio` ≥ 1.0 so winners outpay losers. Widen `AtrMultSl` on volatile symbols to avoid being stopped by normal noise.
- **Volume:** size `Lots` to your account so that a full `AtrMultSl × ATR` stop risks only a small, fixed fraction of equity.

Tuning tip: if the EA over-trades on a choppy symbol, raise `TrendPeriod` and/or `SignalPeriod` — a slower trend filter and signal line demand a more decisive momentum shift before an entry is allowed. Always re-run the Strategy Tester after any change.

Optimise, don't curve-fit. Every parameter has a defined range and step in the tester. Prefer settings that stay profitable across neighbouring values and multiple date ranges over a single "perfect" combination that only shines on one slice of history.

How to Install on MetaTrader 5

- 1 Copy `MacdHistogramTrendRider.ex5` to your MT5 `MQL5\Experts\` folder
- 2 Restart MetaTrader 5 and refresh the Navigator panel
- 3 Drag the EA onto a chart matching the recommended symbol and timeframe
- 4 Configure the input parameters and click **OK**
- 5 Enable **Algo Trading** in the MT5 toolbar

Risk Warning

Trading foreign exchange, CFDs, and other leveraged financial instruments involves substantial risk of loss and is not suitable for all investors. The strategies and tools described in this document are provided for **educational purposes only** and do not constitute financial advice, investment recommendations, or solicitation to trade. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.