Algobot
Maximize Your Profits

Nested Trend Pullback

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend Continuation (Pullback)	M15 – H1	www.algobot.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

Nested Trend Pullback is a multi-scale trend-continuation Expert Advisor that trades a small pullback back into the direction of a larger trend — the spirit of Elder's "Triple Screen" (trade the fine scale only in the direction of the coarse tide), but built entirely from a **single** timeframe.

Rather than reading a second, higher chart, the EA **synthesises** the larger view from the primary series itself. It *decimates* the primary closes — sampling one close every `GroupSize` bars — to build a down-sampled "higher-timeframe proxy". A fast/slow EMA pair on that coarse proxy defines the prevailing tide. Because the proxy skips bars per sample, its EMAs behave like a genuinely slower timeframe filter that automatically adapts to whatever primary timeframe you attach the EA to.

Entries are taken only on the fine (primary) bars, and only when a one-bar pullback *against* the tide resolves back *with* it — a classic "pause, then go". By demanding that fine resumptions agree with the coarse trend, the strategy filters chop and aims to capture the meat of a continuation leg. Risk is ATR-based, and only one position per magic number is held at a time, managed to completion by its stop-loss and take-profit.

> **Core idea.** Two scales, one chart. The *tide* (a fast/slow EMA on the decimated coarse proxy) decides *direction*; the *ripple* (a single-bar pullback-and-resume on the primary bars) decides *timing*. A trade fires only when both agree.

How It Works

1. Coarse Scale — the tide (direction)

On every newly closed primary bar, the EA rebuilds a decimated close series. Starting from the most recently closed bar and stepping back `GroupSize` bars per sample, it collects `HtfSlow + 3` samples into a newest-last proxy array. Three EMAs are then read on that proxy:

- **fastNow** — a `HtfFast`-period EMA over the full proxy (its latest value).
- **fastPrev** — the same fast EMA one coarse step earlier, used to read the fast EMA's *slope*.
- **slowNow** — a `HtfSlow`-period EMA over the full proxy.

The tide is then classified:

```
tide up   = fastNow > slowNow  AND  fastNow > fastPrev   (fast above slow AND rising)
tide down = fastNow < slowNow  AND  fastNow < fastPrev   (fast below slow AND falling)
```

If neither condition holds — a flat or ambiguous coarse trend — the bar is skipped and no entry is considered.

2. Fine Scale — the ripple (timing)

With a tide established, the EA inspects the two most recently closed primary bars: the **trigger** (most recent) and the **prior** (the pullback bar). It looks for a one-bar counter-trend pause that is immediately reclaimed:

```
long  = tide up   AND prior bar RED   AND trigger GREEN closing above the prior bar's HIGH
short = tide down AND prior bar GREEN AND trigger RED   closing below the prior bar's LOW
```

The prior bar's colour represents a brief pause against the trend; the trigger bar breaking beyond that bar's high (long) or low (short) is the resumption that confirms the continuation. Only when the tide and the resumption point the same way is an order prepared.

> **Worked example — long setup**
>
> The coarse EMAs read `fastNow > slowNow` and `fastNow > fastPrev`, so the tide is up. The prior primary bar closed red (a small dip). The trigger bar then closes green *and above the prior bar's high*. Both scales agree → a Buy is sent at the Ask, with the stop one ATR-multiple below and the target set by the reward ratio.

3. Risk, stops and targets

Stop and target distances are sized from the Average True Range (ATR) measured at the trigger bar:

- **Stop distance** = `ATR × StopMult`.

- **Long:** SL = entry − stopDist, TP = entry + stopDist × `RewardRatio`.
- **Short:** SL = entry + stopDist, TP = entry − stopDist × `RewardRatio`.

Entry price is the current Ask for longs and the current Bid for shorts. Position size is the fixed `Lots` value. If ATR is non-positive (insufficient or degenerate data), the trade is abandoned for that bar.

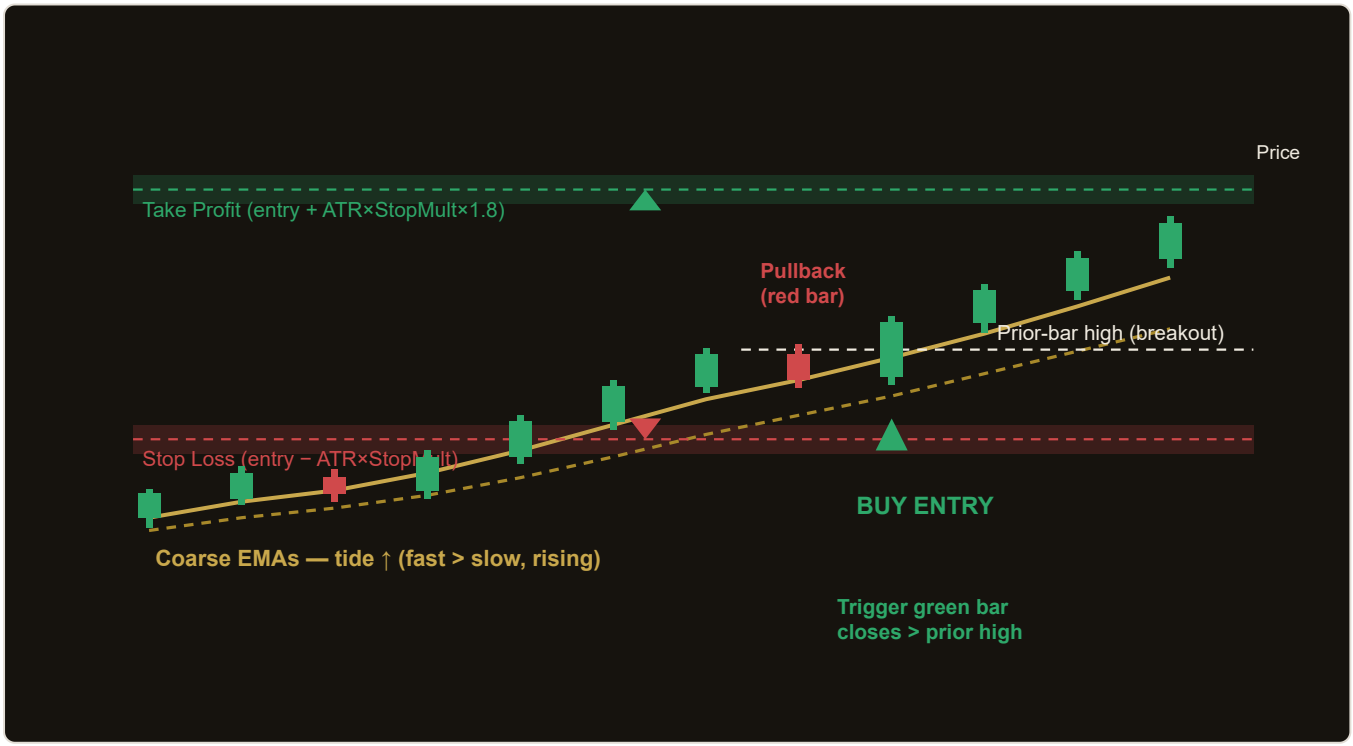
4. Position management

The EA holds **one position per magic number** at a time — if a live position with the strategy's magic already exists, no new signal is acted upon. Each trade is then managed purely by its attached SL/TP; there is no trailing or scaling logic. All evaluation happens once per closed bar (detected via a new-bar check), so signals are stable and never re-fire intrabar.

> **Self-tuning by design.** Because the coarse view is a decimation of the primary series, the same defaults behave sensibly across primary timeframes: a `GroupSize` of 6 on an M15 chart approximates a ~H1½ tide, while on H1 it approximates a ~6-hour tide. Adjust `GroupSize` to widen or tighten the separation between the fine and coarse scales.

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
GroupSize	`6`	Decimation stride for the coarse proxy — one close is sampled every this many primary bars. Larger values widen the gap between the fine and coarse scales. Range 2–24, step 1.
HtfFast	`5`	Fast EMA period on the decimated coarse series. Together with `HtfSlow` it defines the tide direction and slope. Range 2–15, step 1.
HtfSlow	`12`	Slow EMA period on the coarse series. Guarded to always exceed `HtfFast` (set to `HtfFast + 1` if not). Range 5–40, step 1.
AtrPeriod	`14`	ATR lookback used to size stop and target distances at the trigger bar. Range 5–40, step 1.
StopMult	`1.6`	ATR multiple for the stop distance (`stopDist = ATR × StopMult`). Range 0.5–4.0, step 0.1.
RewardRatio	`1.8`	Reward-to-risk ratio for the take-profit (`TP = entry ± stopDist × RewardRatio`). Range 0.5–5.0, step 0.1.
Lots	`0.10`	Fixed trade volume in lots for each position. Range 0.01–1.0, step 0.05.
Magic	`90421`	Magic number identifying this EA's positions. Enforces the one-position-per-magic rule and isolates the EA from other strategies on the same account.

> **Degenerate-pair guard.** On initialisation the EA enforces `HtfSlow > HtfFast` and `GroupSize ≥ 1`. If you set a slow period at or below the fast period, it is automatically bumped to `HtfFast + 1` so the tide filter remains meaningful.

Recommended Settings

The defaults are a balanced starting point for liquid FX majors on intraday charts. Suggested tuning:

- **Timeframe:** M15 to H1 works well. On faster charts, raise `GroupSize` so the coarse tide stays smooth; on slower charts you can reduce it.
- **Trend separation:** keep a clear gap between `HtfFast` (5) and `HtfSlow` (12). Widening the pair makes the tide slower and the EA more selective.
- **Risk:** `StopMult` 1.6 with `RewardRatio` 1.8 gives a positive reward-to-risk profile. Tighten the stop only if the instrument's ATR is stable.

- **Volume:** size `Lots` so that a full stop-out risks a small, fixed fraction of account equity.

Suggested profile — EURUSD, M15

GroupSize 6 · HtfFast 5 · HtfSlow 12 · AtrPeriod 14 · StopMult 1.6 · RewardRatio 1.8 · Lots 0.10. Always validate on the MT5 Strategy Tester with your broker's spread and history before any live use.

Always backtest first. Run the EA in the MT5 Strategy Tester over a representative history and on a demo account before committing real capital. Decimation-based filters and ATR sizing behave differently across instruments, spreads and volatility regimes.

How to Install on MetaTrader 5

1. Copy `NestedTrendPullback.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.