

Elder Ray Trend Pullback

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Trend-Following (Pullback)

TIMEFRAME

M30 – H4

WEBSITE

www.algotbot.live

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Overview

Elder Ray Trend Pullback is a trend-following pullback Expert Advisor built on Dr. Alexander Elder's Elder-Ray oscillator and wired the way his classic Triple-Screen method intends: both the trend filter and the entry oscillator hang off a *single* exponential moving average (EMA) of the close. Rather than chasing breakouts, it waits for an established trend to give back a little ground and then joins the move as it resumes — buying dips in an uptrend and selling rallies in a downtrend.

The core idea is simple. From one EMA the strategy derives two Elder-Ray readings on each bar:

- **Bull Power** = $\text{High} - \text{EMA}$ — how far the bulls pushed price *above* the mean this bar.
- **Bear Power** = $\text{Low} - \text{EMA}$ — how far the bears pushed price *below* the mean this bar.

In a healthy uptrend, Bear Power is normally negative (each bar's low dips beneath the mean) but should be *recovering* on pullback bars. The moment Bear Power ticks back up while still negative, the bears are losing their grip and the uptrend is poised to resume — the classic "buy the dip" trigger. The mirror image drives shorts. Because entries are taken on the give-back rather than the extension, stops stay tight and the reward-to-risk stays favourable.

The EA is fully symmetric (it trades long and short with identical logic), runs on a single timeframe (whatever chart it is attached to), and deliberately exposes only a handful of economically meaningful, coarsely-gridded

parameters to guard against curve-fitting. It is designed with trending FX majors and metals such as EURUSD and XAUUSD on M30–H4 in mind, but nothing about the symbol or timeframe is hardcoded.

Design philosophy. Only six core tunables, each a meaningful economic knob with a wide, coarse Min/Max/Step grid — no micro-tuned magic numbers. Every rule is a symmetric inequality rather than a hand-picked threshold, which keeps the model robust and reduces the risk of overfitting historical data.

How It Works

The single-EMA baseline

On every closed bar the EA computes one EMA of the close, `EMA(close, EmaPeriod)`. That single line serves two roles at once: it is the **trend baseline** (its slope defines direction) and the **reference mean** for the Elder-Ray Bull/Bear Power readings. Using one line for both keeps the filter and the trigger perfectly consistent.

Trend gate (EMA slope only)

Direction is decided purely by the slope of the EMA over `SlopeLookback` bars — there is no second indicator to disagree with the first:

```
UPTREND    = EMA now > EMA (SlopeLookback bars ago)
DOWNTREND = EMA now < EMA (SlopeLookback bars ago)
```

If the EMA is flat (neither strictly rising nor falling over the lookback), no trade is considered.

Entry logic

The EA acts once per newly-closed bar and evaluates two fully symmetric rule sets. It uses the just-closed bar and the bar before it to detect a fading pullback.

LONG — BUY THE DIP

All of the following must hold:

- The trend gate reports an **uptrend**.
- The just-closed bar's **Bear Power is negative** (a genuine dip beneath the mean)...
- ...but it has **turned up** versus the previous bar (bears are fading).
- The dip is **at least** `MinDipAtrFrac × ATR` **deep**, so trivial noise is skipped.
- The bar **closes bullish** (`close > open`), confirming upward resumption.

SHORT — SELL THE RALLY

The exact mirror:

- The trend gate reports a **downtrend**.
- The just-closed bar's **Bull Power is positive** (a genuine poke above the mean)...
- ...but it has **turned down** versus the previous bar (bulls are fading).
- The poke is **at least** $\text{MinDipAtrFrac} \times \text{ATR}$ **tall**.
- The bar **closes bearish** ($\text{close} < \text{open}$).

Exit logic, stop-loss & take-profit

There is no discretionary exit — the volatility-scaled stop and the fixed reward:risk target manage every trade to completion:

- **Stop-loss** is placed $\text{AtrSlMult} \times \text{ATR}$ beyond the entry (volatility-scaled, never a fixed pip count), floored at the broker's minimum stop distance so it is always valid.
- **Take-profit** is set at $\text{RewardRatio} \times \text{stop distance}$, giving a fixed, favourable reward-to-risk on every position.
- **One position per Magic** is held at a time. While a trade is open, no new entry is taken; the ATR stop or the RR target does the exiting.

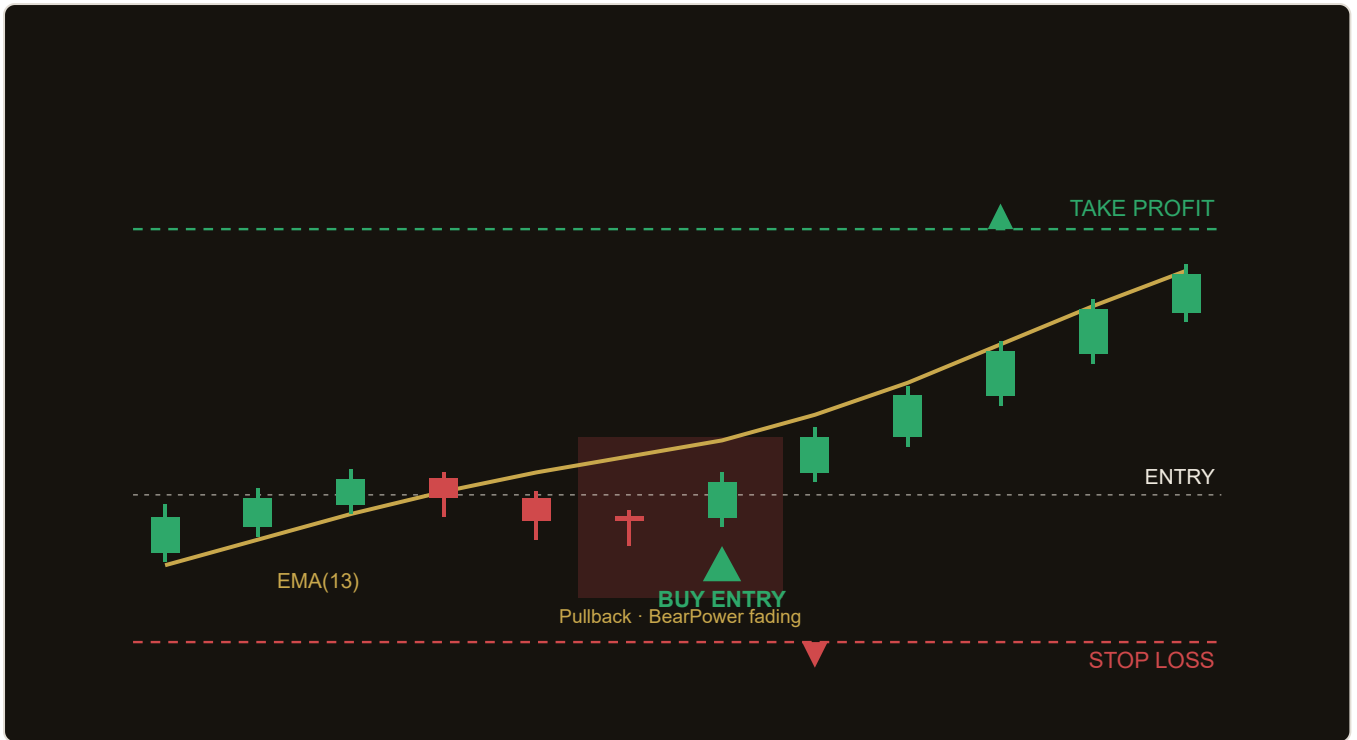
Position sizing (fixed-fractional)

The base lot is scaled by the ratio of live equity to the equity captured at start-up, so exposure grows only as the account grows and shrinks through drawdowns — a natural compounding brake. The scale factor is clamped between **0.25x** and **4x** the base to cap tail exposure, and the final volume is normalised to the symbol's volume step, minimum and maximum.

Single timeframe by design. Every bar and indicator read uses the chart's own timeframe, so the EA runs on whatever period you attach it to. Nothing about symbol or timeframe is hardcoded — it adapts to the chart.

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.

Walk-through of the setup above

Price is in a clean uptrend, so the rising EMA confirms the trend gate. A short pullback drives the last few lows beneath the mean (Bear Power negative). On the highlighted bar the low prints higher than the prior bar's — Bear Power has *turned up* while still negative — the dip is deeper than $\text{MinDipAtrFrac} \times \text{ATR}$, and the bar closes bullish. That fires the long entry. The stop sits $\text{AtrSlMult} \times \text{ATR}$ below entry and the target sits $\text{RewardRatio} \times$ that distance above, which the continuation reaches.

Parameters

The EA exposes six core tunables (plus the trade Magic). Each has a wide, coarse optimisation grid so it can be swept without curve-fitting.

Parameter	Default	Description
EmaPeriod	13	Period of the single EMA that acts as <i>both</i> the trend baseline and the Elder-Ray reference mean. Range 8–40, step 1.
SlopeLookback	3	Number of bars back used to measure EMA slope for the trend gate. Larger values demand a more sustained trend. Range 1–10, step 1.
AtrPeriod	14	ATR period driving the volatility-scaled stop and the noise filter. Range 5–30, step 1.
AtrSIMult	2.0	Stop distance as a multiple of ATR beyond entry (floored at the broker's minimum stop). Range 0.5–5.0, step 0.1.
RewardRatio	1.8	Take-profit expressed as a multiple of the stop distance (the fixed reward-to-risk). Range 0.5–5.0, step 0.1.
MinDipAtrFrac	0.10	Minimum dip/poke depth beyond the mean, as a fraction of ATR — a noise filter that skips trivial give-backs. Range 0.0–1.5, step 0.05.
Lots	0.10	Base lot before equity scaling. The live lot is this value scaled by equity/start-equity and normalised to the symbol's volume step. Range 0.01–1.0, step 0.05.
Magic	7315	EA magic number used to tag and manage this strategy's positions independently of other EAs on the account.

Recommended Settings

The defaults are a sensible starting point for trending FX majors and metals. Adjust deliberately and re-validate on your own data and broker feed.

INSTRUMENTS & TIMEFRAME

- **Symbols:** trending FX majors and metals such as EURUSD or XAUUSD.
- **Timeframe:** M30 to H4. Lower timeframes generate more, noisier signals; higher timeframes give fewer, cleaner ones.

TUNING GUIDANCE

- **Trend strictness:** raise `SlopeLookback` to require a more sustained trend before entering; lower it to react to shorter swings.
- **Selectivity:** raise `MinDipAtrFrac` to demand deeper, more meaningful pullbacks and cut down on marginal signals.
- **Risk shape:** a wider `AtrSIMult` survives more noise but risks more per trade; a higher `RewardRatio` improves payoff per win at the cost of a lower hit-rate.

Tip. Because the stop and target both scale with ATR, the strategy adapts to each instrument's volatility automatically — you rarely need to re-tune `AtrSlMult` when switching between a calm major and a volatile metal.

How to Install on MetaTrader 5

- 1 Copy `ElderRayTrendPullback.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

Before going live. Validate the EA in the MT5 Strategy Tester on your broker's historical data, then run it on a demo account across varied market conditions. Confirm the behaviour matches your expectations before committing real capital.

Risk Warning

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