

Stochastic Trend Pullback

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Trend-Following Pullback

TIMEFRAME

H1 / H4

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

Stochastic Trend Pullback is a trend-following Expert Advisor that buys shallow dips in an uptrend and sells shallow rallies in a downtrend. Its core idea is that strong trends rarely move in a straight line — they pause and pull back against the prevailing direction before resuming. The EA waits for one of those pullbacks, then enters as momentum turns back in line with the trend.

Two components work together. A **trend filter** — an Exponential Moving Average (EMA) of closing prices — defines the only direction the EA is permitted to trade in. The **slow Stochastic oscillator** then times the re-entry: it must first dip into an extreme zone (the pullback), and only when %K crosses back through the %D signal line is a trade taken.

This "buy the dip in an uptrend / sell the rally in a downtrend" filtering is robust because the trend filter blocks the losing counter-trend signals that plague a raw oscillator, while the pullback requirement gives a favourable entry near the swing extreme — a tight stop and a high reward-to-risk ratio. All indicators (EMA, Stochastic %K/%D, ATR) are computed on the **primary chart timeframe only**, and every decision is evaluated on the bar that has just closed.

How It Works

Trend Filter (Direction Gate)

An EMA of the closing price sets the master direction. The EA compares the close of the just-closed bar to the EMA value:

- **Trend UP** — close is above the EMA. Only long (buy) setups are considered.
- **Trend DOWN** — close is below the EMA. Only short (sell) setups are considered.

Counter-trend signals are simply ignored, which removes the single biggest weakness of trading an oscillator on its own.

Pullback Timing (Slow Stochastic)

The slow Stochastic is built from raw %K → slowed %K (SMA over `Slowing`) → %D signal line (SMA over `SignalPeriod`). A valid signal requires the oscillator to have first travelled into an extreme *pullback* zone, then cross back:

- **Bullish cross** — the previous slowed %K was *at or below* %D and the current slowed %K is *above* %D (momentum turning up).
- **Bearish cross** — the previous slowed %K was *at or above* %D and the current slowed %K is *below* %D (momentum turning down).

Entry Logic

A position is opened only when the trend filter, the cross, and the pullback origin all agree. The EA holds **one position per magic number at a time**.

- **BUY** — Trend UP *and* a bullish %K/%D cross *and* the pullback originated from the oversold zone (previous slowed %K was below `OversoldLevel`). Entry is placed at the Ask.
- **SELL** — Trend DOWN *and* a bearish %K/%D cross *and* the rally originated from the overbought zone (previous slowed %K was above `OverboughtLevel`). Entry is placed at the Bid.

Exit Logic — Stop, Target & Trailing

Risk is defined entirely by the Average True Range (ATR) measured on the closed bar, so stops and targets adapt automatically to current volatility.

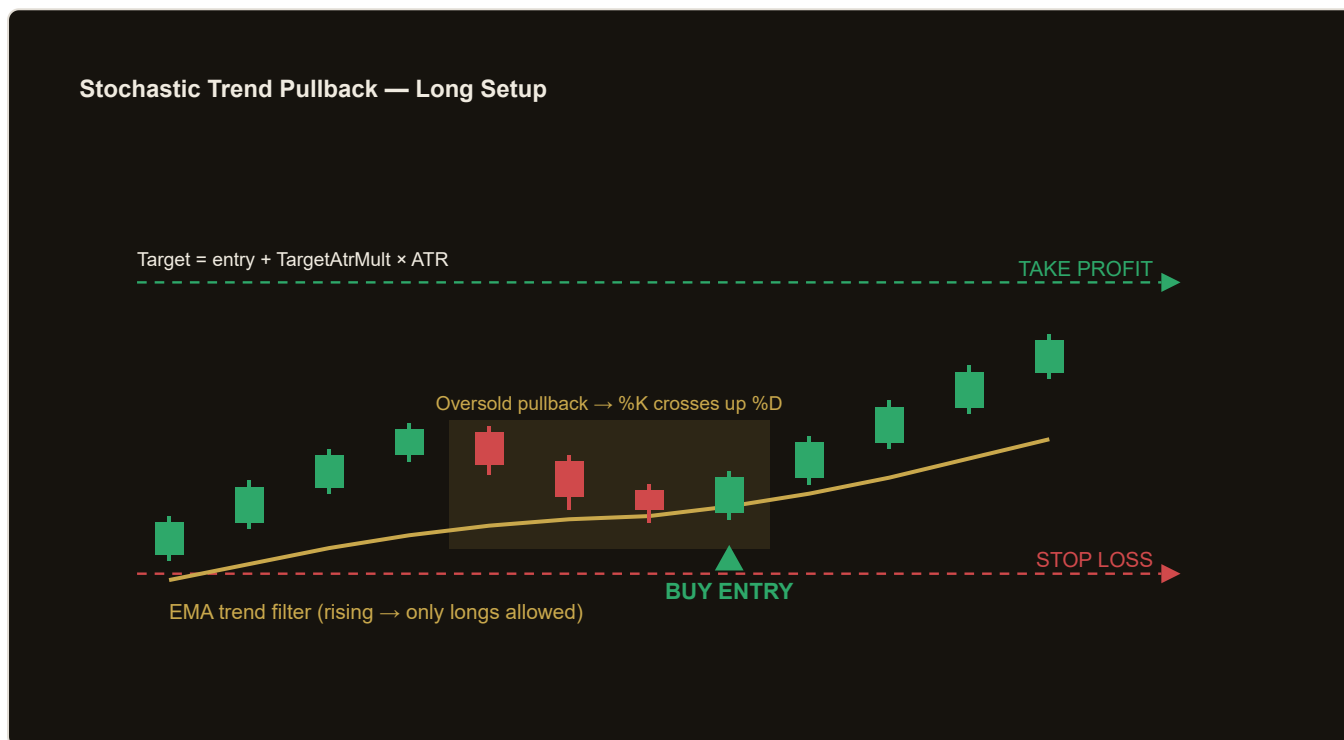
- **Protective stop** — placed `StopAtrMult × ATR` away from entry, fixing a known monetary risk per trade.
- **Take profit** — placed `TargetAtrMult × ATR` away from entry. With the defaults (3.0 vs 1.5) the reward target is twice the initial risk.
- **ATR trailing stop** — once a trade moves into profit, the stop is trailed `TrailAtrMult × ATR` behind price on each new bar. The stop only ever tightens toward price (never loosens), locking in gains as the trend

extends.

Once-per-bar evaluation. The EA acts a single time per newly-formed bar and always uses the bar that has just closed. This avoids reacting to intrabar noise and keeps the C# engine and the MQL5 build behaving identically — trailing management runs first, then a new entry is considered.

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.

Reading the setup

Price is trending up and holding above the rising EMA, so only longs are considered. A shallow three-bar pullback pushes the slow Stochastic into the oversold zone. When %K crosses back up through %D, the EA buys at the Ask, sets a protective stop $\text{StopAtrMult} \times \text{ATR}$ below entry and a target $\text{TargetAtrMult} \times \text{ATR}$ above. As the trend resumes, the ATR trailing stop ratchets upward to protect the open profit.

Parameters

Parameter	Default	Description
StochLength	14	Stochastic %K lookback (highest-high / lowest-low window). Range 5–30, step 1.
Slowing	3	%K slowing — SMA period applied to raw %K to produce the slowed %K line. Range 1–10, step 1.
SignalPeriod	3	%D signal period — SMA of the slowed %K that forms the cross line. Range 1–10, step 1.
TrendEmaPeriod	50	Period of the trend-filter EMA of closes. Higher = smoother, slower direction gate. Range 20–200, step 10.
OversoldLevel	25	Oversold threshold; a buy requires the pullback to have originated below this level. Range 10–40, step 5.
OverboughtLevel	75	Overbought threshold; a sell requires the rally to have originated above this level. Range 60–90, step 5.
AtrPeriod	14	ATR period used for stop, target and trailing distances. Range 5–30, step 1.
StopAtrMult	1.5	Protective stop distance as a multiple of ATR. Range 0.5–4.0, step 0.1.
TargetAtrMult	3.0	Take-profit distance as a multiple of ATR. Range 1.0–6.0, step 0.5.
TrailAtrMult	2.0	ATR trailing-stop distance behind price once in profit. Range 0.5–5.0, step 0.1.
Lots	0.10	Fixed order volume in lots. Range 0.01–1.0, step 0.05.
Magic	40714	Magic number identifying this EA's positions; enables the one-position-per-magic rule.

Keep reward above risk. The reward-to-risk ratio is $\text{TargetAtrMult} \div \text{StopAtrMult}$. With the defaults (3.0 / 1.5) each winner targets roughly twice the initial risk. If you tighten the stop, review the target so the edge is preserved.

Recommended Settings

The defaults are a balanced starting point for liquid instruments on intraday-to-swing timeframes. Suggested baseline:

- **Symbols** — major FX pairs (e.g. EUR/USD, GBP/USD) or liquid indices with clean trending behaviour and tight spreads.
- **Timeframe** — **H1** for more frequent setups, or **H4** for fewer, higher-quality swing entries. All indicators run on the chart's own timeframe.
- **Trend / pullback** — `TrendEmaPeriod = 50`, `OversoldLevel = 25`, `OverboughtLevel = 75`. Raise the EMA period to demand a stronger, cleaner trend before trading.
- **Risk** — keep `StopAtrMult = 1.5` and `TargetAtrMult = 3.0` for a 1:2 reward-to-risk profile; size `Lots` to your account so a stop-out is a small, comfortable fraction of equity.

Always test before going live. Backtest and forward-test on a demo account with your broker's real spreads and swaps before trading real capital. Optimisation results that look strong in-sample can degrade out-of-sample — validate on data the parameters were not tuned on.

How to Install on MetaTrader 5

- 1 Copy `StochasticTrendPullback.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.