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Maximize Your Profits

Directional Movement Pullback

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend-Following Pullback Continuation	H1 – H4	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

Directional Movement Pullback is a trend-following, pullback-continuation Expert Advisor. Rather than chasing a market that has already made an extended move, it waits for an established trend to *pause*, then re-enters as momentum resumes in the direction of that trend. This lets the EA join strong moves at a more favourable price while side-stepping the choppy, directionless conditions that punish breakout systems.

The strategy rests on three layers of confirmation working together:

- **Regime filter — Wilder Directional Movement (+DI / −DI / ADX).** The EA only trades when the ADX confirms a genuinely *strong* trend, and it only trades in the direction that the +DI / −DI pair agree upon. The Directional Movement values are computed with Wilder's original smoothing on fully closed bars, so they never repaint.
- **Trend baseline — an EMA.** Longs require price to be trading above the moving-average baseline; shorts require it below. This keeps every trade aligned with the dominant structure.
- **Timing trigger — an RSI midline cross.** When price pulls back, RSI dips through its midline. The cross back through the midline in the trend direction signals that momentum is resuming *with* the trend — that is the moment the EA enters the continuation.

Risk is handled entirely with the Average True Range (ATR): a volatility-scaled stop-loss, a take-profit set to a configurable multiple of the risk (reward-to-risk ratio), and an optional ATR trailing stop that locks in profit as

the move extends. Position sizing uses a fixed base lot that can optionally compound with account equity, clamped to a hard ceiling.

> **Non-repainting by design.** Every decision is made on the *close* of a bar. The EA acts only when a new bar opens, evaluating the just-closed bar (shift 1). Signals never change after the fact, so live behaviour matches the backtest.

How It Works

Regime & Direction Filter

On each closed bar the EA updates the Wilder +DI, −DI and ADX. A trade is permitted only when **ADX is above** `AdxThreshold` (the "strong-trend" gate). Direction is then decided by which Directional Indicator leads:

- **Uptrend candidate:** +DI > −DI
- **Downtrend candidate:** −DI > +DI

If ADX is below the threshold — a ranging or weak market — no trade is taken regardless of the other signals.

Entry Logic

All four conditions must line up on the just-closed bar for an entry:

LONG (BUY)

- Strong trend: `ADX > AdxThreshold`
- Direction: `+DI > -DI`
- Baseline: close is **above** the EMA
- Trigger: RSI crosses **up** through the midline (`rsiPrev < RsiMidline` and `rsiNow ≥ RsiMidline`)

SHORT (SELL)

- Strong trend: `ADX > AdxThreshold`
- Direction: `-DI > +DI`
- Baseline: close is **below** the EMA
- Trigger: RSI crosses **down** through the midline (`rsiPrev > RsiMidline` and `rsiNow ≤ RsiMidline`)

The RSI midline cross is the heart of the timing: during a pullback RSI retreats toward (or through) the midline, and its recovery back across the line marks momentum turning back in the trend's favour — a continuation entry rather than an exhaustion chase.

Worked example — a long continuation

EUR/USD is in a strong uptrend: ADX reads 28 (above a 22 threshold), +DI is clearly above −DI, and price is trading above the 50-period EMA. Price then pulls back for a few bars and RSI slips to 46. On the next closed bar RSI recovers to 52 — crossing up through the 50 midline. With all four conditions met, the EA buys at the ask, places its ATR stop below, and sets a take-profit at 1.8× the risk.

Exit Logic — Stops, Targets & Trailing

Risk levels are all derived from ATR measured on the entry bar:

- **Stop-loss:** `entry ∓ ATR × AtrMultSL` (below entry for longs, above for shorts).
- **Take-profit:** the stop distance multiplied by `RewardRisk`, i.e. `ATR × AtrMultSL × RewardRisk` away from entry.
- **ATR trailing stop:** if `TrailAtrMult > 0`, each closed bar the stop is tightened to `close ∓ ATR × TrailAtrMult`. The stop only ever moves in the profitable direction and never past the current price, so it locks in gains without being whipsawed on the same bar.

Set `TrailAtrMult = 0` to disable trailing and let trades run purely to their fixed stop or target.

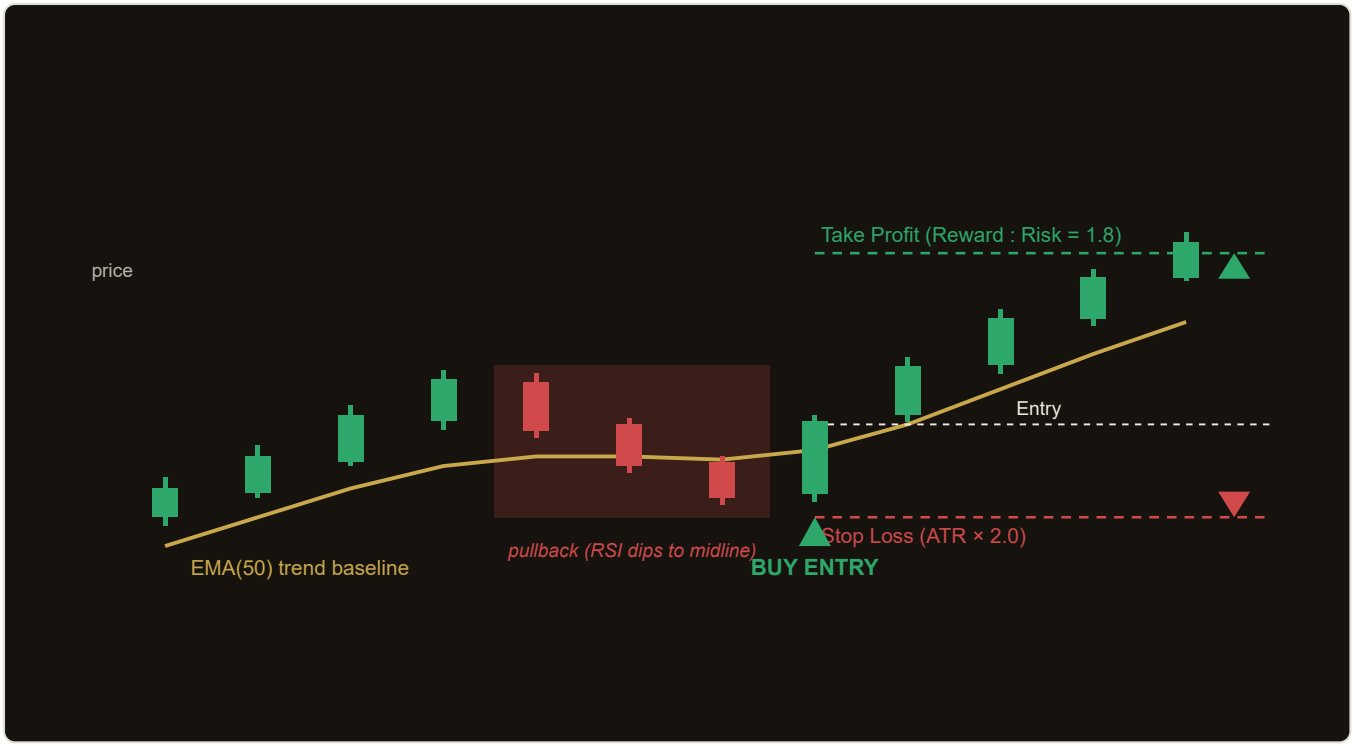
Position Management & Sizing

- **One position per magic number.** While a trade tagged with the EA's magic is open, no new entry is taken — the EA manages the existing position (trailing) instead.
- **Spread gate.** If the current spread exceeds `MaxSpread` points, entries are skipped to avoid trading in poor conditions.
- **Equity-scaled lots.** Base size is `Lots`. With `EquityScaling` the size grows (or shrinks) with account equity: `Lots × (1 + EquityScaling × (equity / initialBalance − 1))`. A value of `0` gives a fixed lot, `1` is fully proportional compounding, and above `1` is aggressive. The result is rounded, floored at 0.01, and capped at `MaxLots`.

C# and MQL5 parity. The C# research engine computes +DI / −DI / ADX by hand from raw bars; the compiled MT5 EA uses the built-in `iADX`, which applies the identical Wilder smoothing. Both read the just-closed bar (shift 1), so the two implementations are designed to behave the same.

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
AdxPeriod	`14`	Wilder ADX / DMI period used for the +DI, −DI and ADX regime filter. Range 10–30, step 1.
AdxThreshold	`22.0`	Strong-trend gate — trades are allowed only when ADX exceeds this level. Higher = stricter, fewer but stronger-trend signals. Range 15.0–40.0, step 1.0.
EmaPeriod	`50`	Period of the EMA trend baseline. Longs need close above it, shorts below. Range 20–200, step 5.
RsiPeriod	`14`	RSI period used for the midline-cross timing trigger. Range 7–28, step 1.
RsiMidline	`50.0`	RSI level whose cross (up for longs, down for shorts) signals the pullback resuming. Range 40.0–60.0, step 1.0.
AtrPeriod	`14`	ATR period used to size the stop-loss, take-profit and trailing distances. Range 7–30, step 1.
AtrMultSL	`2.0`	ATR multiple defining the stop-loss distance from entry. Range 1.0–4.0, step 0.25.
RewardRisk	`1.8`	Reward-to-risk ratio — take-profit distance = stop distance × this value. Range 1.0–4.0, step 0.1.
TrailAtrMult	`2.5`	ATR multiple for the trailing stop, evaluated each closed bar. Set to 0 to disable trailing. Range 0.0–5.0, step 0.25.
Lots	`0.10`	Base lot size before any equity scaling. Range 0.01–2.0, step 0.01.
EquityScaling	`1.0`	Compounding factor: 0 = fixed lots, 1 = fully proportional to equity growth, >1 = aggressive. Range 0.0–2.0, step 0.1.
MaxLots	`5.0`	Hard ceiling on position size after scaling. Range 0.1–50.0, step 0.1.
MaxSpread	`30`	Maximum allowed spread (in points) at entry; wider spreads skip the trade. Range 5–100, step 1.
Magic	`20260705`	Magic number identifying this EA's orders and enforcing one position per instance.

Recommended Settings

The defaults are a balanced starting point for liquid, trending instruments. As with any strategy, validate on your own broker's data before going live.

- **Symbols:** major FX pairs (EUR/USD, GBP/USD, USD/JPY) and other liquid, trend-prone instruments where spreads stay tight.
- **Timeframe:** H1 to H4. Higher timeframes produce cleaner Directional Movement readings and fewer false pullback triggers.
- **Trend strictness:** raise `AdxThreshold` (e.g. 25–28) to trade only the strongest trends; lower it toward 18–20 for more frequent signals in gently trending markets.
- **Risk profile:** keep `EquityScaling` at 0 (fixed lots) while evaluating, then increase gradually if you want the size to compound. Always keep `MaxLots` at a level your account can absorb.

> **Tip.** Because the take-profit is a multiple of the ATR-based stop, the effective risk-reward stays consistent across volatility regimes. Tune the character of the system with `AtrMultSL` (stop tightness) and `RewardRisk` (target ambition) together rather than in isolation.

> **Optimisation caution.** With thirteen tunable inputs it is easy to over-fit to historical data. Prefer robust parameter regions that perform reasonably across a range of settings and symbols over a single "perfect" combination, and confirm with out-of-sample and forward testing.

How to Install on MetaTrader 5

1. Copy `DirectionalMovementPullback.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 you go live.** Run the EA in the MT5 Strategy Tester and on a demo account first. Confirm the spread gate, lot sizing and trailing behaviour match your broker's conditions before committing real capital.

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.