

# Pullback Depth Continuation

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Trend-Following (Pullback Continuation)

## TIMEFRAME

H1 (adaptable)

## WEBSITE

[www.algoBot.live](http://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

**Pullback Depth Continuation** is a single-timeframe, trend-following Expert Advisor that trades pullbacks *in the direction of an established trend*. Rather than picking tops and bottoms, it waits for the market to dip inside an uptrend (or rally inside a downtrend) and re-joins the move once the pullback shows signs of ending.

What sets it apart from a typical oscillator-based "buy the dip" system is **how the dip is qualified**. Instead of an RSI or momentum threshold, the EA *measures the depth* of the retracement from the most recent swing extreme and expresses that depth in **ATRs** (Average True Range units). Only a pullback that is deep enough to be a genuine dip, yet shallow enough not to have broken the trend, is allowed to arm a trade. Because the depth is normalised by ATR, the same rule behaves consistently in calm and volatile conditions alike.

The strategy never trades counter-trend. Every setup is filtered through a sloping EMA regime gate, entries fire only on a resumption bar, and each position carries a hard ATR stop-loss plus a reward:risk take-profit. An active trend-flip exit closes the trade early if price closes back through the EMA — the moment the original premise is gone.

## How It Works

---

The EA acts once per newly-closed bar. On each new bar it evaluates three conditions in sequence — a trend regime gate, a measured pullback-depth filter, and a resumption trigger — and only opens a trade when all three align.

### 1. Trend Regime — the sloping EMA gate

An Exponential Moving Average ( `TrendEmaPeriod` , default 50) defines the trend. It is not enough for price to be on one side of the EMA — the EMA itself must be *sloping*. The EA compares the EMA now against its value `SlopeLookback` bars ago:

- **Uptrend** — the last close is *above* the EMA *and* the EMA has *risen* over the slope window.
- **Downtrend** — the last close is *below* the EMA *and* the EMA has *fallen* over the slope window.

If neither condition holds, no new trade is considered. This blocks entries during flat, directionless regimes where pullback continuation performs worst.

### 2. Pullback Depth — the ATR value band

Within a valid trend, the EA looks back `PullbackLookback` bars (default 8) for the recent swing extreme — the highest high for longs, the lowest low for shorts. It then measures how far price has retraced from that extreme and divides by the current ATR to get a **depth in ATRs**:

```
depth (long) = (swingHigh - lastClose) / ATR
depth (short) = (lastClose - swingLow) / ATR
```

The trade is only armed when this depth falls inside the **value band** defined by `MinPullbackAtr` and `MaxPullbackAtr` (default 0.6 to 2.5 ATR):

- **Too shallow** (below `MinPullbackAtr` ) — not a real dip yet; skip.
- **Inside the band** — a genuine, tradeable retracement; arm the setup.
- **Too deep** (above `MaxPullbackAtr` ) — the trend is probably breaking; skip.

### 3. Resumption Trigger — the direction bar

Even a perfect-depth pullback is not traded until the market shows it is turning back with the trend. The setup fires only when the just-closed bar prints in the trend's direction:

- **Long** — a *bullish* close (close > open) while in an uptrend.
- **Short** — a *bearish* close (close < open) while in a downtrend.

## Entry, Stop-Loss & Take-Profit

On a valid signal the EA sends a market order of `Lots` volume. Risk distance is `StopAtrMult × ATR`, and the take-profit is placed at a `RewardRisk` multiple of that distance:

```
risk = StopAtrMult × ATR
Long:  SL = entry - risk      TP = entry + RewardRisk × risk
Short: SL = entry + risk      TP = entry - RewardRisk × risk
```

With the defaults (1.5 ATR stop, 2.0 reward:risk) each trade risks 1.5 ATR to target 3.0 ATR of profit.

## Exits & Position Management

- **Take-profit / stop-loss** — the primary exits, attached to every order.
- **Active trend-flip exit** — on any bar, if an open long closes back *below* the EMA (or an open short closes back *above* it), the position is closed immediately. The premise for the trade is gone, so the EA does not wait for the stop.
- **One position per magic** — only a single position (identified by `Magic`) is held at a time; no new entry is taken while one is open.
- **Cooldown** — after an entry the EA waits at least `CooldownBars` bars before entering again, damping churn after a stop-out.

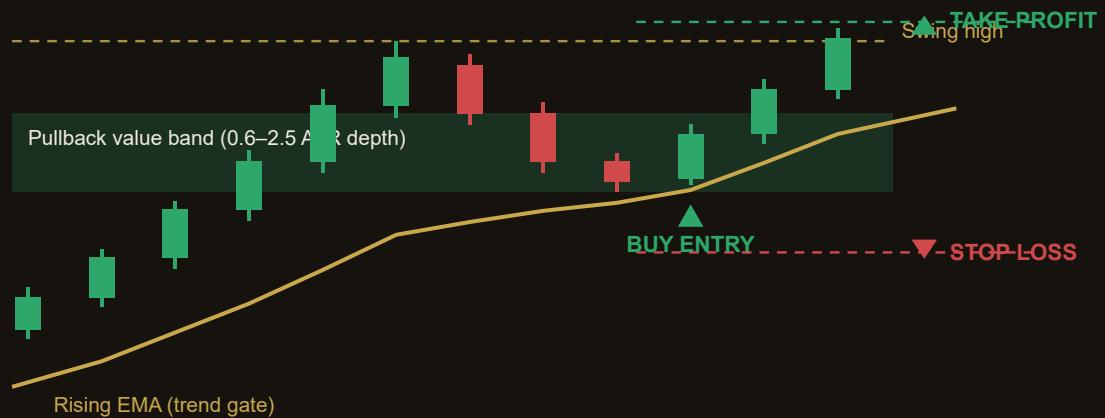
**Note:** All logic is evaluated on *closed* bars only. The EA reads shift 1 (the just-closed bar) and never acts on the still-forming bar at shift 0, so signals are stable and do not repaint.

## 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. It depicts a **long** setup: a rising EMA, a measured pullback into the ATR value band, and a bullish resumption bar firing the entry.

## Long setup — pullback continuation in an uptrend



*Illustrative example only. Actual market behaviour varies.*

## Parameters

---

All inputs mirror the strategy's `DescribeParameters()` definition. Defaults are tuned as a sensible starting point; optimise per instrument and timeframe.

Parameter	Default	Description
TrendEmaPeriod	50	Period of the trend-defining EMA. Range 10–200, step 5.
SlopeLookback	3	Bars over which the EMA must rise/fall for the trend to count as live. Range 1–20, step 1.
PullbackLookback	8	Bars scanned for the swing extreme the pullback retraces from. Range 3–30, step 1.
MinPullbackAtr	0.6	Value-band lower bound (in ATRs): a valid dip is at least this deep. Range 0.0–3.0, step 0.1.
MaxPullbackAtr	2.5	Value-band upper bound (in ATRs): deeper than this means the trend is likely breaking, so skip. Range 0.5–6.0, step 0.5.
AtrPeriod	14	ATR period used for depth normalisation and stop sizing. Range 5–40, step 1.
StopAtrMult	1.5	Stop distance = this many ATRs from entry. Range 0.5–5.0, step 0.5.
RewardRisk	2.0	Take-profit as a reward:risk multiple of the stop distance. Range 1.0–5.0, step 0.5.
CooldownBars	2	Minimum bars between entries, damping churn after a stop-out. Range 0–30, step 1.
Lots	0.10	Fixed position size in lots. Range 0.01–1.0, step 0.05.
Magic	4021	Magic number identifying this EA's positions (one position per magic).

## Recommended Settings

The defaults are designed for liquid instruments on intraday-to-swing timeframes. As a starting configuration:

- **Timeframe:** H1 works well as a balance between signal frequency and noise; the logic adapts to any timeframe because depth is ATR-normalised.
- **Symbols:** trending, liquid instruments (major FX pairs, index CFDs). Avoid persistently range-bound symbols where the slope gate rarely activates.
- **Trend gate:** keep `TrendEmaPeriod` at 50 with `SlopeLookback` 3 for a responsive-yet-stable regime filter. Raise the EMA period for smoother, less frequent trends.
- **Value band:** the 0.6–2.5 ATR window suits most markets. Widen `MaxPullbackAtr` for choppier instruments; raise `MinPullbackAtr` to demand deeper, higher-conviction dips.

- **Risk:** a 1.5 ATR stop with 2.0 reward:risk gives a positive expectancy skew; test 2.5–3.0 reward:risk on strongly trending symbols.

**Tip:** Because pullback depth is measured in ATRs, you rarely need to re-tune the value band when moving between instruments or volatility regimes — the ATR normalisation does that work for you. Focus optimisation effort on `TrendEmaPeriod`, `RewardRisk`, and `StopAtrMult`.

### Example — a long trade

On H1, EUR/USD is in an uptrend (price above a rising 50-EMA). Price pulls back 1.2 ATR below the 8-bar swing high — inside the 0.6–2.5 band. The next bar closes bullish, so the EA buys 0.10 lots. With ATR at 0.0018 and `StopAtrMult` 1.5, the stop sits ~27 pips below entry and the take-profit ~54 pips above (2.0 reward:risk). If price instead closes back below the EMA first, the trend-flip exit closes the position early.

**Fixed lot sizing:** This EA trades a fixed `Lots` volume and does *not* auto-scale to account equity. Size `Lots` to your balance and per-trade risk tolerance before going live, and re-check it whenever your account size changes.

## How to Install on MetaTrader 5

- 1 Copy `PullbackDepthContinuation.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

**Backtest first:** Before deploying live, validate the EA in the MT5 Strategy Tester on your chosen symbol and timeframe using quality tick data, and confirm the input set behaves as expected across different market conditions.

## 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.