

# Band Walk Continuation

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Trend Continuation

## TIMEFRAME

H1 (single timeframe, configurable)

## 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

**Band Walk Continuation** is a Bollinger “walking-the-bands” trend-*continuation* Expert Advisor. It rests on the inverse premise of the classic band mean-reversion trade: when price posts a run of consecutive closes *beyond* a volatility rail, it is “walking the band” — the statistical hallmark of a strong, one-sided regime rather than an exhausted extreme.

Instead of fading that strength, Band Walk Continuation respects it. After a confirmed band-walk, the EA waits for a shallow, healthy pullback to the moving-average mean (the middle band) and then re-enters *with* the trend the moment price resumes by closing back through the mean in the trend’s direction. An EMA baseline keeps every trade on the correct side of the broader move and filters out choppy false walks. The stop is ATR-based so it adapts to current volatility, and the target is a fixed reward-to-risk multiple — structurally positive expectancy whenever the trend follows through.

The strategy is single-timeframe and fully indicator-based, deriving everything from the timeframe of the chart it is attached to. A per-side state machine makes each transition objective and time-boxed, so stale setups automatically cancel themselves.

**Core idea:** A band-walk is treated as a signal of trend *strength*, not exhaustion. The trade is not the breakout itself — it is the disciplined re-entry on the first controlled pullback and resumption, aligned with the EMA trend.

# How It Works

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## Indicators

- **Bollinger Bands** — an **SMA** middle band (the mean) with upper and lower rails placed at **BandDeviations** × the population standard deviation. The rails define the “walk” zone; the middle band is the pullback target and resumption trigger.
- **EMA trend baseline** — a **TrendPeriod** exponential moving average that keeps entries on the correct side of the broader trend and rejects entries fighting it.
- **ATR** — an **AtrPeriod** Average True Range used to size the protective stop to current volatility.

The EA acts **once per closed bar**. Each indicator is read on the freshly-closed bar, so signals never repaint on the still-forming candle.

## The Per-Side State Machine

Each side (long and short) is tracked independently through three objective, time-boxed states. This makes every transition mechanical and lets over-stretched or stale setups reset themselves.

- **Idle** → nothing pending on this side.
- **Walking** → reached once **WalkBars** consecutive closes finish beyond the rail (a confirmed band-walk).
- **PulledBack** → reached when, after walking, price closes back on the far side of the middle band (a healthy retracement to the mean).

### State flow (long side)

Idle → *WalkBars* consecutive closes above the upper rail →

#### Walking

→ a close back below the middle band →

#### PulledBack

→ a bullish close reclaims the mean above the EMA →

#### BUY

(state resets to Idle).

## Long Entry

A long position opens when *all* of the following hold on the just-closed bar:

- The long side is in the **PulledBack** state (a confirmed up-walk that has retraced to the mean).
- The bar **closes above the middle band** (price resumes upward through the mean).
- The bar is **bullish** (close is above its open).
- Price is **above the EMA** baseline (broader trend still up).

## Short Entry

A short position is the exact mirror image. It opens when:

- The short side is in the **PulledBack** state (a confirmed down-walk that has retraced to the mean).
- The bar **closes below the middle band**.
- The bar is **bearish** (close is below its open).
- Price is **below the EMA** baseline.

## Exits: Stop Loss & Take Profit

Every trade is bracketed at entry — there is no discretionary management:

- **Stop loss** =  $\text{AtrStopMult} \times \text{ATR}$  away from entry (below for longs, above for shorts). The risk distance breathes with volatility.
- **Take profit** =  $\text{RewardRatio} \times$  the risk distance, in the trade's direction. With the defaults this is a fixed **1.8R** target.

## Setup Invalidation

A pending setup self-cancels — returning to Idle — whenever it becomes unreliable:

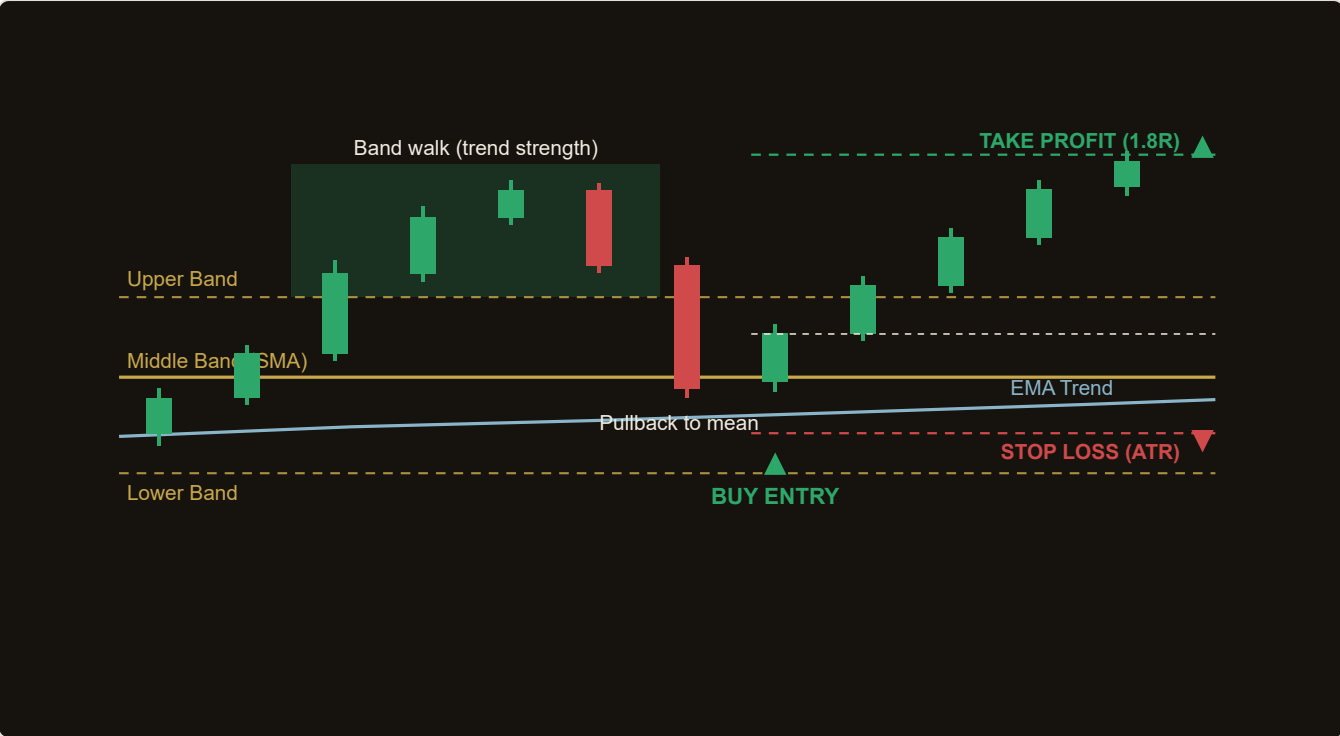
- The setup goes **stale**: more than  $\text{MaxSetupAge}$  bars elapse without triggering.
- The **opposite rail breaks**: e.g. a long setup where price closes below the lower band (the trend has flipped).
- A **strong opposing thrust** occurs: a close beyond the opposite rail immediately clears any setup building the other way.

**One position at a time.** The EA holds at most one open position per magic number on the symbol. State machines keep advancing while a trade is live, but a new entry is only sent once the current position has closed.

## Strategy in Action

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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: price walks above the upper band, pulls back to the mean, and a bullish bar reclaims the mean above the EMA to trigger the entry.



*Illustrative example only. Actual market behaviour varies.*

## Parameters

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Parameter	Default	Description
BandPeriod	20	Bollinger look-back for the middle band (SMA) and the standard-deviation window. Range 10–50, step 2.
BandDeviations	2.0	Standard-deviation multiplier that sets how far the upper and lower rails sit from the mean. Range 1.0–3.0, step 0.25.
WalkBars	2	Consecutive closes beyond a rail required to confirm a band-walk. Range 1–5, step 1.
MaxSetupAge	8	Maximum bars a pending setup may live before it self-cancels back to Idle. Range 3–20, step 1.
TrendPeriod	50	EMA trend baseline period; keeps entries on the correct side of the broader move. Range 20–150, step 5.
AtrPeriod	14	ATR look-back used to size the stop to current volatility. Range 5–30, step 1.
AtrStopMult	1.5	Stop distance as a multiple of ATR (stop = AtrStopMult × ATR). Range 0.5–4.0, step 0.25.
RewardRatio	1.8	Take-profit distance as a multiple of the risk (stop) distance. Range 1.0–4.0, step 0.2.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	4207	Unique magic number tagging this EA's orders so it manages only its own positions.

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## Recommended Settings

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The strategy is single-timeframe and derives everything from the chart it is attached to, so it can run on whatever timeframe you select. As a starting point:

- **Timeframe:** H1 is a balanced default — long enough to produce clean band-walks and avoid noise, short enough for a workable trade frequency. M30 and H4 also suit the logic.
- **Symbols:** instruments that trend and walk their bands well — major FX pairs, indices, and metals. Avoid persistently range-bound symbols where walks rarely confirm.
- **Band settings:** the classic `BandPeriod = 20`, `BandDeviations = 2.0` is a robust baseline. Raising deviations demands stronger walks (fewer, higher-quality setups).

- **Risk:** keep `AtrStopMult` and `RewardRatio` so that the fixed `Lots` size risks only a small, fixed fraction of your account per trade.

**Tip:** Increase `WalkBars` to require a longer, more convincing band-walk before a setup arms — this trades frequency for conviction. Tighten `MaxSetupAge` to insist that resumption follows the pullback quickly, discarding setups that drift.

**Always validate first.** Backtest and forward-test on a demo account with your broker's spread and execution before risking live capital. Optimal parameters differ by symbol and market conditions.

## How to Install on MetaTrader 5

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- 1 Copy `BandWalkContinuation.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

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