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Overextension Snapback Reversal

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Mean Reversion (Counter-Trend)	M5 / M15	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

Overextension Snapback Reversal is a pure price-action, counter-trend mean-reversion Expert Advisor. It hunts for the precise bar at which a tired directional drive runs out of fuel and fades it — selling into an exhausted up-move and buying into an exhausted down-move, betting on a measured "snapback" toward the origin of the run.

The EA uses **no indicators of any kind**. Every decision is built from raw candle geometry: closing prices, candle ranges, wick-to-body proportions and swing extremes. A trade is taken only when two independent conditions align on the most-recently-closed bar:

- **Momentum overextension (the context)** — over the last `RunLen` bars, price has travelled a net distance that is large relative to the market's own recent rhythm (the average candle range over `RangeWindow` bars). When net travel exceeds `StretchMult` × the average range, the leg is statistically "stretched."
- **Candle rejection (the trigger)** — the signal bar prints a pin-style rejection at a *fresh* extreme of the move: a long wick (wick ≥ `WickMult` × body) into the direction of the drive, with a high/low beyond the preceding window, that the close has rejected.

A new extreme plus a long rejecting wick is the fingerprint of exhaustion: the auction probed further, found no acceptance, and snapped back. The stop sits just beyond the rejected extreme (where the thesis is wrong);

the target is a retracement of `RetraceFrac` of the stretched run back toward its origin — a measured reversion, not an open-ended trend bet.

> **Best fit:** Designed for **XAU/USD** or **GBP/JPY** on **M5 / M15**, where sharp impulsive legs are frequently followed by snapback retracements. It runs on any liquid symbol or timeframe, but performs best where momentum bursts and reversions are pronounced.

How It Works

The EA evaluates its logic **once per freshly-closed bar**. The bar at shift 0 is still forming, so all measurements use the most-recently-closed bar (shift 1) as the *signal bar* and the bars behind it for context. Only one position is held at a time for the EA's magic number.

1. Measuring the market's rhythm

The EA sums the high–low range of the last `RangeWindow` bars and divides by `RangeWindow` to get the **average candle range** — a self-calibrating measure of normal volatility. The overextension threshold is then `stretch = StretchMult × avgRange`.

2. Measuring the run (overextension)

Net directional travel is the difference between the signal bar's close and the close `RunLen` bars earlier:

```
netRun = Close[1] - Close[1 + RunLen]
```

A positive `netRun` is an up-drive; a negative value is a down-drive. The move is considered stretched only when the magnitude of `netRun` exceeds `stretch`.

3. The rejection candle (trigger)

On the signal bar the EA measures the body, the upper wick, and the lower wick. To avoid a divide-by-near-zero on a doji, the body is floored at `range × 0.0001`. It also scans the preceding window (shifts 2 … `RangeWindow`+1) for the prior high and low, so the signal bar can be confirmed as a **fresh extreme**.

SHORT SETUP — UP-DRIVE OVEREXTENDED, REJECTED AT A FRESH HIGH

- `netRun > stretch` — momentum stretched up
- `High[1] > priorHigh` — the signal bar makes a fresh terminal high
- `upperWick ≥ WickMult × body` — a long upper rejection wick
- `upperWick ≥ lowerWick` — the rejection is skewed to the top

LONG SETUP — DOWN-DRIVE OVEREXTENDED, REJECTED AT A FRESH LOW

- `-netRun > stretch` — momentum stretched down
- `Low[1] < priorLow` — the signal bar makes a fresh terminal low
- `lowerWick ≥ WickMult × body` — a long lower rejection wick
- `lowerWick ≥ upperWick` — the rejection is skewed to the bottom

4. Entry, Stop Loss and Take Profit

When a short signal fires, the EA sells at the current Bid; when a long signal fires, it buys at the current Ask. A buffer of `BufferFrac × range` (where `range` is the signal bar's high–low) is placed beyond the rejected extreme for the stop.

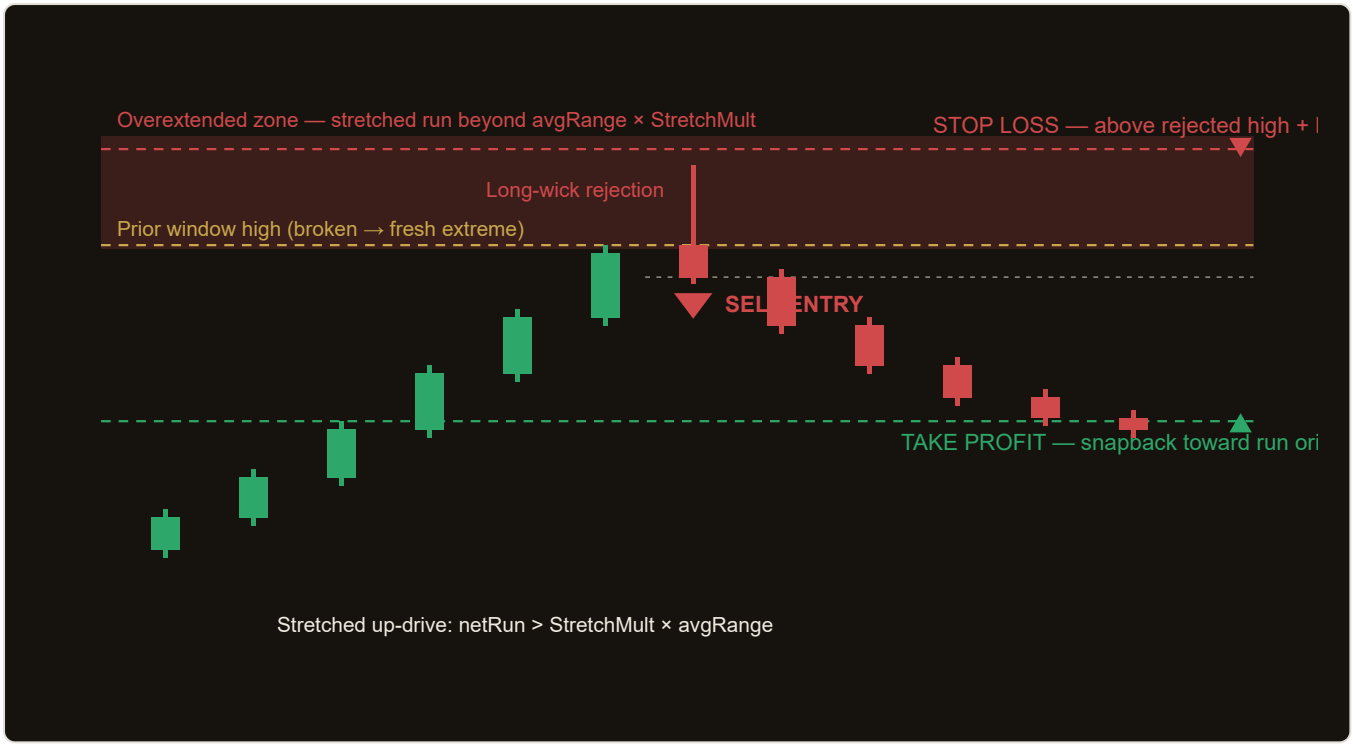
- **Short:** `SL = High[1] + buffer`, `TP = entry - RetraceFrac × |netRun|`
- **Long:** `SL = Low[1] - buffer`, `TP = entry + RetraceFrac × |netRun|`

The target is expressed as a fraction of the stretched run, so deeper extensions automatically aim for proportionally larger snapbacks. As safety gates, the EA discards any setup where the computed risk is non-positive, or where the take-profit would land on the wrong side of the entry.

> **Why it works:** the stop is anchored to the exact point that would invalidate the exhaustion thesis — a new extreme beyond the rejected wick. The target is a partial reversion of the over-extended leg, keeping the reward proportional to how far price stretched.

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 **short snapback**: an overextended up-drive that prints a long-wick rejection at a fresh high, after which price snaps back toward the run origin to hit the take-profit.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
Lots	`0.10`	Trade volume in lots. Range 0.01 – 1.00, step 0.01. Set to suit your account size and risk per trade.
RunLen	`5`	Run length (in bars) over which net directional travel is measured: `Close[1] - Close[1+RunLen]`. Range 3 – 20, step 1. Larger values require a longer leg to qualify as overextended.
RangeWindow	`14`	Window (in bars) for the average candle range and the fresh-extreme scan. Range 5 – 40, step 1. Defines the market's reference rhythm and how far back the broken extreme is measured.
StretchMult	`2.5`	Overextension multiple of the average range. Net run must exceed `StretchMult × avgRange`. Range 1.0 – 6.0, step 0.5. Higher = stricter, fewer but more stretched setups.
WickMult	`1.5`	Rejection-wick multiple of the candle body. The directional wick must be ≥ `WickMult × body`. Range 0.5 – 4.0, step 0.25. Higher demands a more dominant rejection wick.
RetraceFrac	`0.50`	Snapback fraction of the run used for the take-profit: `TP = entry ∓ RetraceFrac × |netRun|`. Range 0.20 – 1.00, step 0.05. Higher targets a deeper reversion toward the run origin.
BufferFrac	`0.15`	Stop-loss buffer as a fraction of the signal bar's range, added beyond the rejected extreme. Range 0.00 – 1.00, step 0.05. Larger gives the stop more breathing room.
Magic	`740219`	Magic number identifying this EA's positions. Ensures the one-position-at-a-time rule applies only to trades opened by this strategy. Use a unique value per EA instance on the same account.

Recommended Settings

The defaults are a balanced starting point for XAU/USD and GBP/JPY on the lower intraday timeframes. Tune `StretchMult` and `WickMult` first — they control how rare and how clean the setups must be — then adjust `RetraceFrac` to match how far reversions typically run on your instrument.

SUGGESTED STARTING POINTS

- **XAU/USD (Gold), M5:** `RunLen 5`, `RangeWindow 14`, `StretchMult 2.5`, `WickMult 1.5`, `RetraceFrac 0.50`, `BufferFrac 0.15`.

- **GBP/JPY, M15:** `RunLen 6`, `RangeWindow 14–20`, `StretchMult 3.0`, `WickMult 1.75`, `RetraceFrac 0.50`, `BufferFrac 0.20`.
- **Quieter / ranging conditions:** raise `StretchMult` toward 3.5–4.0 so only genuinely stretched legs qualify, and consider a higher `WickMult` for cleaner rejections.

Worked example — short snapback

Suppose `avgRange` over the last 14 bars is 0.80 (80 points on Gold) and `StretchMult` is 2.5, so `stretch = 2.00`. The signal bar closes 2.40 above the close 5 bars earlier (`netRun = +2.40 > 2.00`), prints a fresh high above the prior window, and its upper wick is 1.6× its body. The EA sells at Bid, sets the stop at `High[1] + 0.15 × range`, and targets `entry - 0.50 × 2.40 = entry - 1.20` — a half-run snapback toward where the leg began.

Tip: always run a backtest and forward (demo) test on your specific broker and symbol before committing real capital. Spread and execution differ between brokers, and a counter-trend strategy is especially sensitive to fills near volatile extremes. Begin with the minimum `Lots` and scale only after the EA proves itself in live-like conditions.

How to Install on MetaTrader 5

1. Copy `OverextensionSnapbackReversal.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

Note: the EA acts only on a freshly-closed bar and holds at most one position at a time per magic number. To open it in the Strategy Tester from source, place `OverextensionSnapbackReversal.mq5` in `MQL5\Experts\` and compile it in MetaEditor (F7) to produce the `.ex5`.

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.