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Inverse Fair Value Gap Retest

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price-Action Polarity Flip (Inverse Fair Value Gap Retest)	M15 (runs on whichever timeframe the chart or tester uses)	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

Inverse Fair Value Gap Retest is an educational Expert Advisor built around a pure price-action concept. A fair value gap is a three-candle pattern in which the first and third candles leave a price void that the middle candle's range does not fill. The EA tracks these gaps and watches for the ones that fail to hold: when a later candle closes completely through the gap, the zone is treated as having reversed its role (an "inverse" gap).

Once a gap has flipped, the EA waits for the first return of price to the near edge of the flipped zone. A bullish gap that has been closed through from above becomes a supply (sell) zone; a bearish gap that has been closed through from below becomes a demand (buy) zone. The first retest is the only point at which the strategy signals an entry. Each gap is used at most once, and old gaps are dropped after a set number of bars.

The only indicator used is the Average True Range (ATR), and it serves a single purpose: padding the protective stop beyond the far edge of the gap. Detection, flipping, entry and target are all based on raw candle geometry. The strategy is designed to study how price reacts when an imbalance fails, and it suits readers who want to learn about price-action concepts, gap tracking logic and rule-based order handling. Trading involves risk, and losses occur.

How It Works

Entry Logic

- **Gap detection:** on every closed bar, the last three candles (c1, c2, c3) are checked. A bullish gap exists when the High of c1 is below the Low of c3 (zone = High of c1 to Low of c3). A bearish gap exists when the Low of c1 is above the High of c3 (zone = High of c3 to Low of c1).
- **Minimum size filter:** the gap must be at least `MinGapPct` of the middle candle's High-Low range. Setting it to 0 accepts every gap.
- **Flip condition:** a later candle must CLOSE through the whole gap. For a bullish gap, the close must be below the zone bottom (the zone becomes a sell zone). For a bearish gap, the close must be above the zone top (the zone becomes a buy zone).
- **First retest, sell:** price (Bid) rises back to the bottom of a flipped bullish gap while still below its top. The EA sends a market sell.
- **First retest, buy:** price (Bid) falls back to the top of a flipped bearish gap while still above its bottom. The EA sends a market buy.
- **Checked tick by tick:** retests are detected on every tick, not only at bar close.
- **One use per gap:** the first retest consumes the gap whether or not an order is placed (for example if capacity is full or price jumped straight through the zone). A second touch is never treated as a first retest.
- **Position capacity:** a new order is allowed only if fewer than `MaxPositions` positions are open for this symbol and magic number, and none of them is in the opposite direction.

Exit Logic

- Positions are closed only by their attached stop-loss or take-profit levels; the EA has no other exit rule.
- A gap that is never retested is simply dropped once it is older than `MaxGapAge` bars, counted from the bar that completed the pattern. This applies whether or not it has flipped.
- If a flipped zone is revisited within a bar without a tick registering it, the zone is retired at the bar close so it is not traded later as a false first retest.

Stop-Loss and Take-Profit

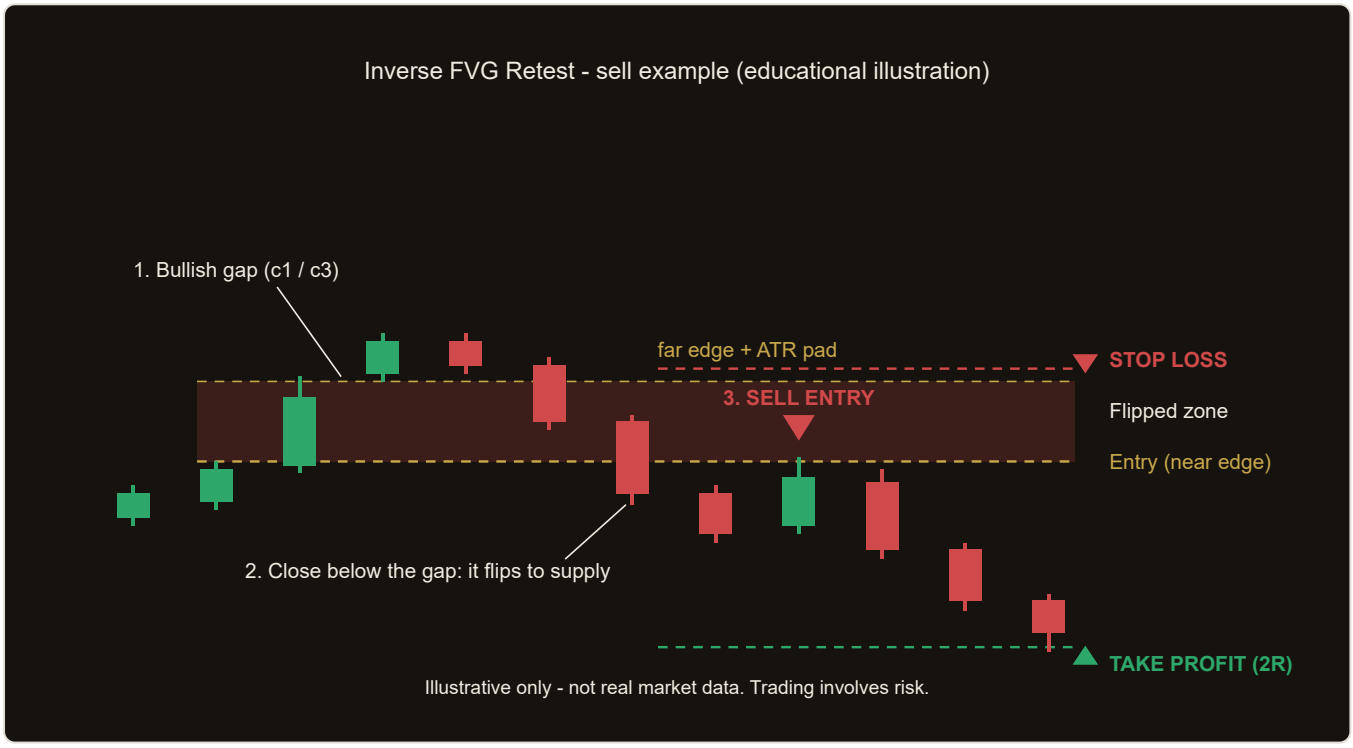
- **Stop-loss:** placed beyond the FAR edge of the gap, padded by `StopAtrMult` x ATR. For a sell, the stop sits above the zone top; for a buy, it sits below the zone bottom.
- **Take-profit:** set at `RiskReward` times the distance between entry and stop. With the default of 2.0, the target is two times the risk.
- **Broker minimum distance:** if the stop is closer than the broker's minimum stop level, it is widened to that distance and the target is recalculated so the reward-to-risk ratio is preserved.

- **Volume handling:** the order volume is rounded down to the symbol's volume step and kept within the broker's minimum and maximum.

> **Tip:** Trading involves risk, and any strategy can produce losing sequences. Use the Strategy Tester's visual mode to watch several gaps form, flip and get retested, and compare what the EA did with the rules above. This builds understanding of the logic before anything is run on a live account.

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.

Example

Suppose a bullish gap forms with a zone from 1.0800 to 1.0820. Two bars later a candle closes at 1.0785, fully below the zone bottom, so the gap flips into a sell zone. Price then drifts lower and later rallies. When Bid reaches 1.0800 (the zone bottom) while still below 1.0820, the EA sends a market sell near 1.0800. With an ATR of 0.0008 and `StopAtrMult` of 0.25, the stop is placed at 1.0820 + 0.0002 = 1.0822, so the risk is about 22 pips. With `RiskReward` at 2.0, the target is about 44 pips lower, near 1.0756. The trade ends at the stop or the target, and the gap cannot be traded again. This is a simplified illustration with made-up prices; the outcome of any real trade is uncertain.

Parameters

Parameter	Default	Description
MaxGapAge	`30`	Maximum age of a gap in bars, counted from the bar that completed the three-candle pattern. Older gaps are dropped, flipped or not.
AtrPeriod	`14`	Period of the ATR used only to pad the stop-loss beyond the far edge of the gap.
StopAtrMult	`0.25`	Stop padding beyond the far edge of the gap, as a multiple of ATR. A value of 0 places the stop exactly at the far edge.
RiskReward	`2.0`	Take-profit distance expressed as a multiple of the risk (entry to stop distance).
MinGapPct	`0.10`	Minimum gap size as a fraction of the middle candle's range. Filters out very thin gaps; 0 accepts all gaps.
MaxPositions	`1`	Maximum number of concurrent positions for this symbol and magic number. Opposite-direction positions are never stacked.
Lots	`0.10`	Fixed order volume in lots, adjusted to the broker's volume step, minimum and maximum.

Recommended Settings

- **Symbols:** the logic was developed with EURUSD, GBPUSD and XAUUSD in mind; any liquid symbol can be studied, and results differ between instruments.
- **Timeframe:** M15 is the reference timeframe, but the EA is not locked to it and uses the chart's timeframe. Compare several timeframes to see how gap behavior changes.
- **Risk per trade:** choose a small, fixed volume so that a single stop-loss is a modest fraction of the account. Losses are a normal part of trading.
- **Spreads and execution:** wide spreads and slippage affect retest entries and stop distances, so test with realistic spread settings and a broker with reliable execution.
- **Demo first:** run the EA on a demo account and in the Strategy Tester, using tick-based modelling, before considering any other use.
- **Review regularly:** past behavior does not indicate future results, so review the logged trades and revisit parameters periodically.

How to Install on MetaTrader 5

1. Copy `InverseFairValueGapRetest.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.