

Engulfing Pivot Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Pivot Reversal (Mean Reversion + Breakout Hedge)

TIMEFRAME

M15 / M30 / H1

WEBSITE

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

Engulfing Pivot Reversal is a pure price-action Expert Advisor. It uses *no* technical indicators — no moving averages, RSI, ATR, or Bollinger Bands. Instead, it builds a fresh grid of classic floor pivots (PP, R1, S1, R2, S2) on every closed bar and trades the moment the auction visibly flips at one of those levels.

The edge thesis is simple. Floor pivots are the reference grid that intraday desks fade. When price drives into support (S1) or resistance (R1) and the very next candle **engulfs** the prior one and closes back on the right side of the level, the order flow at a level the whole market watches has reversed — a high-quality mean-reversion scalp back toward the central pivot (PP).

Fading levels, however, has one fatal failure mode: the level *fails* and price runs. Rather than absorb that runaway loss, the EA flips stance and deploys an opposite **breakout hedge** that rides the very move which beat the base leg, aiming at the next pivot (S2 for a failed support, R2 for a failed resistance). The textbook “faded a level that then ran” disaster becomes a scratch or a win, and once both legs are live the whole basket is banked the instant net floating profit turns sufficiently green.

Self-scaling by design. Every buffer — entry zone, hedge trigger, stop pad, and reward distance — is sized as a fraction of the pivot range ($H - L$). There are no hard-coded pip values, so the same settings adapt automatically across symbols and timeframes.

How It Works

1. Pivot Levels

On each freshly-closed bar the EA recomputes the floor pivots from the last `PivotLookback` closed bars on the chart timeframe only:

```
H = highest high over the lookback window
L = lowest low over the lookback window
C = close of the just-closed bar

PP = (H + L + C) / 3
R1 = 2 × PP - L      S1 = 2 × PP - H
R2 = PP + (H - L)   S2 = PP - (H - L)

range = H - L      (this is exactly R1 - S1)
```

The pivot `range` sizes every distance buffer used below, which is what lets the strategy scale to any symbol or timeframe without pip hard-coding.

2. Entry — Engulfing Reversal at a Pivot

Entries are taken **only when flat**, one evaluation per closed bar. The rules are exact mirror images for long and short, and an engulfing pattern is defined as raw price action: the prior candle's body must be fully engulfed by the current candle's body, with the current body larger.

LONG SETUP — BULLISH ENGULFING RECLAIMING S1

- The just-closed candle dips into the S1 zone (`Low ≤ S1 + ZoneFrac × range`).
- It is a **bullish engulfing** of the prior candle (prior bearish, current bullish, current body engulfs prior body).
- It closes back **above S1**.
- Take-profit aims at **PP**; the stop sits *beyond* the hedge trigger so the hedge always engages before the base stop.

SHORT SETUP — BEARISH ENGULFING REJECTING R1

- The just-closed candle pokes into the R1 zone (`High ≥ R1 - ZoneFrac × range`).
- It is a **bearish engulfing** of the prior candle.
- It closes back **below R1**.
- Take-profit aims at **PP**.

Spread guard. If `MaxSpreadPoints > 0` and the current spread (in points) exceeds it, no new entry is taken — protecting the scalp from being eaten by a wide quote.

3. The Hedge — The Signature Mechanic

While the single base leg is open, the EA watches every tick. If price travels `HedgeFrac` of a range *beyond* the rejected level, the level has clearly failed, and an opposite market leg is deployed:

- **Base long, support failed** → open a *sell* hedge riding the breakdown toward **S2**.
- **Base short, resistance failed** → open a *buy* hedge riding the break-up toward **R2**.

The hedge carries its own stop just beyond the failed level (invalidated if price reclaims the level by `ReclaimFrac × range`) and targets the next pivot. Because the base stop is deliberately placed beyond the hedge trigger, the hedge always fires *first*, converting the runaway loss into an offsetting position.

4. Exits

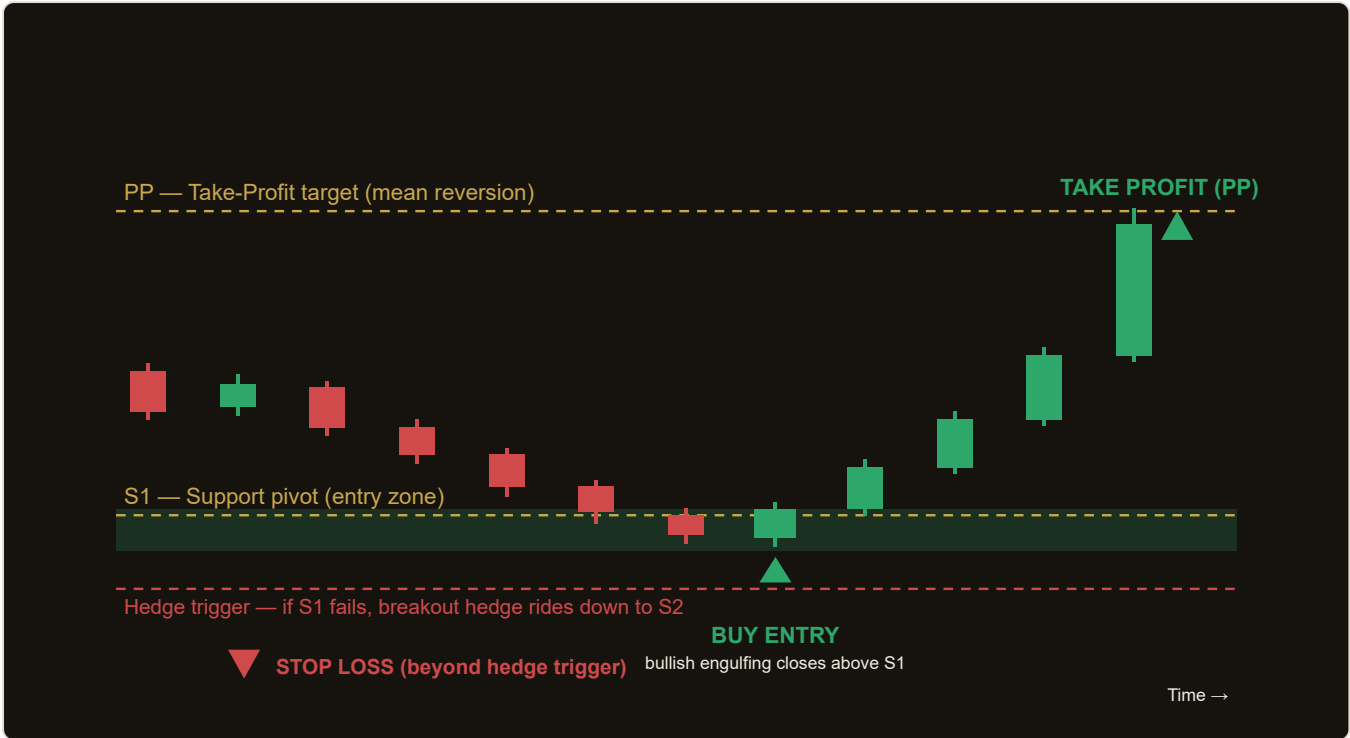
- Every leg carries its own structural stop-loss and take-profit, managed by the platform.
- Once **both legs are live**, the entire basket is closed the instant net floating profit (profit + swap) reaches `BasketTpMoney` — the hedge's bail-to-green.
- Per-leg stops cap the risk on each side, so there is deliberately *no* basket-wide stop-loss.

Worked example — failed support

Price dips into S1 and prints a bullish engulfing closing above S1, so a base *buy* opens targeting PP. Instead of bouncing, price grinds lower and breaks `HedgeFrac × range` below S1. The level has failed: a *sell* hedge fires toward S2 and rides the breakdown. As the hedge gains faster than the base loses, net floating P/L climbs to `BasketTpMoney` — the EA flattens both legs in profit.

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
PivotLookback	20	Number of closed bars whose H/L/C define the floor pivots. Range 5–150, step 1.
ZoneFrac	0.20	How close to a pivot the engulfing candle's wick must reach, as a fraction of the pivot range. Range 0.02–0.80, step 0.01.
HedgeFrac	0.25	Distance beyond the rejected level that confirms it has failed and deploys the hedge (fraction of range). Range 0.05–1.50, step 0.05.
StopFrac	0.25	Pad placed beyond the engulfing extreme (and the hedge trigger) for the base stop-loss. Range 0.05–2.00, step 0.05.
ReclaimFrac	0.30	Hedge invalidation pad: if price reclaims the failed level by this much, the hedge is wrong and is stopped (fraction of range). Range 0.05–1.50, step 0.05.
MinRewardFrac	0.50	Minimum reward distance for any take-profit, as a fraction of the pivot range. Range 0.10–3.00, step 0.10.
BasketTpMoney	30.0	Close the whole basket once net floating profit reaches this amount (account currency). Range 5.0–2000.0, step 5.0.
MaxSpreadPoints	50	Skip new entries while the spread (in points) exceeds this value (0 = off). Range 0–500, step 5.
Lots	0.10	Base reversal leg volume. Range 0.01–1.00, step 0.05.
HedgeLots	0.10	Hedge leg volume. Range 0.01–1.00, step 0.05.
Magic	7311	Magic number identifying this EA's positions. Range 0–9,999,999, step 1.

Recommended Settings

The strategy is built for liquid, range-respecting markets where pivot engulfings and false breaks alternate.

- **Symbols:** liquid FX majors such as EUR/USD or AUD/USD, or XAU/USD (gold).
- **Timeframe:** M15, M30, or H1 — the EA runs on whatever timeframe the chart is set to.
- **Lookback:** the default `PivotLookback = 20` gives a responsive intraday pivot grid; raise it for calmer, wider levels.
- **Basket target:** set `BasketTpMoney` to a level that matches your `Lots` / `HedgeLots` sizing and account currency.

Hedging account required. This EA deliberately opens an opposite position on the same symbol while the base leg is still open. It must run on an MT5 account configured in **hedging** mode — on a netting account the opposite order would close or reduce the base position instead of locking a true hedge, breaking the strategy.

Always validate first. Backtest in the MT5 Strategy Tester and run on a demo account before any live use. Tune `HedgeFrac` , `StopFrac` , and `BasketTpMoney` together — they jointly govern how quickly the hedge engages and where the basket banks.

How to Install on MetaTrader 5

- 1 Copy `EngulfingPivotReversal.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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