

# Engulfing Rebound Hedge

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Price Action — Reversal & Breakout (Hedged)

## TIMEFRAME

M5 – M15

## WEBSITE

[www.algotbot.live](http://www.algotbot.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 Rebound Hedge** is a pure price-action Expert Advisor that trades without a single traditional indicator — no moving average, RSI, or ATR is used anywhere. Instead, it frames every new bar with a **rolling pivot** derived from the most recent closed bars using classic floor-pivot math (PP / R1 / S1), but computed over a moving window rather than a fixed daily session.

Once that framework is in place, the EA waits for an **engulfing candlestick** and trades it two complementary ways. A **reversal** (rebound) fires when an engulfing candle rejects the rolling support or resistance, while a **breakout** fires when an engulfing candle decisively clears a pivot level for the first time. Stop-loss and take-profit distances are sized from a hand-computed volatility proxy — the average bar range of the lookback window — and always respect the symbol's minimum stop distance.

To protect against an open trade running the wrong way, the strategy includes a built-in **recovery hedge**: if a position moves adverse beyond a configurable threshold, a single opposite-side position is armed to cap the drawdown while the cycle resolves cleanly. Its natural habitat is a liquid FX major or metal on the M5–M15 timeframes.

**Hedging account required.** Because the recovery hedge opens an opposite-side position while the primary trade is still live, this EA must run on a **HEDGING** account. On a netting account the opposite order would net out (or be rejected) and the hedge logic could not function as designed.

## How It Works

### 1. The Rolling Pivot

On each new bar, the EA scans the last `PivotLookback` closed bars and measures the highest high (`HH`), the lowest low (`LL`), and the most recent close. From these it builds a standard set of floor pivots over the moving window:

```
avgRange = mean( High - Low ) over the last N closed bars
PP = ( HH + LL + lastClose ) / 3
R1 = 2 * PP - LL          (rolling resistance)
S1 = 2 * PP - HH          (rolling support)
```

The same `avgRange` value doubles as a volatility proxy used later to size stops, targets, and the hedge trigger. If `avgRange` is zero or negative the bar is skipped.

### 2. Engulfing Detection

The EA inspects the two most recent closed bars (`cur` and `prev`) for a body engulfing pattern:

- **Bullish engulfing** — `cur` closes up, `prev` closed down, and the bullish body fully wraps the prior body (`cur.Close ≥ prev.Open` and `cur.Open ≤ prev.Close`).
- **Bearish engulfing** — the mirror image: `cur` closes down, `prev` closed up, and the bearish body wraps the prior body.

If neither pattern is present, the EA stands aside for that bar.

### 3. Reversal vs. Breakout Entries

A valid engulfing candle is then tested against the rolling pivot in two distinct, mirror-image ways:

#### LONG SETUPS

- **Support rebound (reversal)** — a bullish engulfing whose pair dipped to or under `S1` but closed back above it. This is a rejection of support → **long**.
- **Resistance breakout** — a bullish engulfing whose close clears `R1` for the first time (the prior close was at or below `R1`) → **long**.

## SHORT SETUPS

- **Resistance rejection (reversal)** — a bearish engulfing whose pair poked to or over **R1** but closed back below it → **short**.
- **Support breakdown (breakout)** — a bearish engulfing whose close breaks **S1** for the first time → **short**.

If the long and short conditions are both true or both false (none, or an ambiguous signal), the EA stands aside. Entries are evaluated only **once per new bar** and only while the account is flat.

## 4. Stops & Targets

Stop and target distances are scaled from the average bar range and floored at the broker's minimum stop distance:

```
minDist = ( StopsLevel + 1 ) · Point
SL distance = max( StopMult · avgRange, minDist )
TP distance = max( TpMult · avgRange, minDist )
```

A long is sent at the ask with SL below and TP above; a short is sent at the bid with SL above and TP below. All prices are normalized to the symbol's digit precision, and volume is snapped to the symbol's step and min/max limits before any order is sent.

## 5. The Recovery Hedge

While exactly one (primary) position is open and no hedge has yet been armed, the EA measures the adverse excursion every tick:

- For a **long**: how far the bid has fallen below the open price.
- For a **short**: how far the ask has risen above the open price.

If that adverse move reaches **HedgeTriggerMult · avgRange**, a single opposite-side hedge is opened with volume equal to **primaryVolume · HedgeVolumeMult** (also normalized and floored). Only **one** hedge is armed per cycle.

## 6. Cycle Management & Clean Flatten

Once a cycle is hedged, the per-leg SL/TP levels resolve the position naturally. When only a single leg remains, the EA flattens it so that every cycle ends cleanly and the next one starts from a flat book. When the account returns to flat, the internal hedge flag resets and the EA resumes hunting for the next engulfing setup.

**Note:** The strategy keeps its own rolling history of closed bars and seeds it at startup, so a valid pivot can be measured from the very first new bar after the EA is attached. No warm-up indicator buffers are needed.

## 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 **support rebound**: price drifts down to the rolling support ( **S1** ), a bullish engulfing candle dips under it and closes back above, and the EA goes long with stop below support and target near the pivot.



*Illustrative example only. Actual market behaviour varies.*

## Parameters

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Parameter	Default	Description
PivotLookback	20	Number of closed bars used to build the rolling pivot (highest high, lowest low, last close) and the average-range volatility proxy. Range 8–60, step 2 (internally clamped to a minimum of 4).
StopMult	1.0	Stop-loss distance as a multiple of the average bar range. Floored at the broker's minimum stop distance. Range 0.5–3.0, step 0.1.
TpMult	1.6	Take-profit distance as a multiple of the average bar range. Floored at the broker's minimum stop distance. Range 0.5–4.0, step 0.1.
HedgeTriggerMult	1.0	Adverse excursion, in average-range multiples, that arms the single recovery hedge. Range 0.3–2.5, step 0.1.
HedgeVolumeMult	1.0	Hedge volume as a multiple of the primary order's lots. Range 0.5–2.0, step 0.1.
Lots	0.10	Primary order volume in lots. Snapped to the symbol's volume step and min/max limits. Range 0.01–1.0, step 0.01.
Magic	880142	Unique magic number identifying this EA's positions on the symbol. Range 0–9,999,999, step 1.

## Recommended Settings

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The strategy is built for liquid, mean-reverting price action where engulfing rejections at rolling pivots scalp well and the hedge backstops a genuine break.

- **Symbols:** liquid FX majors (e.g. EURUSD, GBPUSD, USDJPY) or metals (e.g. XAUUSD).
- **Timeframe:** M5 to M15.
- **Account type:** HEDGING (required for the recovery hedge to coexist with the primary leg).
- **Pivot lookback:** the default of 20 frames roughly the last several hours on M5–M15; raise it for smoother, slower pivots, lower it for more reactive levels.
- **Stop / target:** the default `StopMult = 1.0` / `TpMult = 1.6` gives a positive reward-to-risk on the primary leg; widen both for higher-volatility instruments such as gold.

### Example — gold on M15

On XAUUSD M15 the average bar range is large, so leaving `StopMult` and `TpMult` at their defaults already produces a wide stop and target scaled to current volatility. A trader wanting a more aggressive recovery might set `HedgeTriggerMult = 0.7` (hedge sooner) and `HedgeVolumeMult = 1.0` (match the primary size), accepting tighter cycles in exchange for capping adverse runs earlier.

**Tip:** Because all distances are derived from the live average bar range, the same parameter set adapts across instruments without manual re-tuning of pip values. Always validate any configuration in the Strategy Tester on your broker's data before going live.

## How to Install on MetaTrader 5

- 1 Copy `EngulfingReboundHedge.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

**Reminder:** Confirm your trading account is set to **HEDGING** mode before attaching this EA, otherwise the recovery hedge cannot open an opposite-side position alongside the primary trade.

## 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.

