

Pivot Anchor Engulfing Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Pivot Reversal + Breakout Hedge

TIMEFRAME

Intraday (H1 recommended)

WEBSITE

www.algotbot.live

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Overview

Pivot Anchor Engulfing Hedge is a pure price-action Expert Advisor — it uses **no technical indicators of any kind**. Instead, it builds classic floor-trader pivot levels from the prior trading day and fades engulfing candle reversals that occur at those levels. When a fade is invalidated, the EA flips its bias and rides the breakout with a separate hedge position, turning a failed reversal into a continuation trade.

The strategy rests on three ideas working together:

- **Pivot anchors.** Classic floor pivots (PP, R1, R2, S1, S2) are computed from the previous calendar day's high, low and close. These act as the reference levels where the market is expected to react.
- **Engulfing reversals.** A bullish engulfing candle that wicks *into* a support pivot and closes back *above* it triggers a long; a bearish engulfing candle that spikes *into* a resistance pivot and closes back *below* it triggers a short.
- **The hedge.** If price subsequently closes decisively *through* the anchored pivot, the fade is treated as failed and an opposite breakout position (tagged `Magic + 1`) is opened to capture the continuation move.

No indicators, no extra data feeds. The prior day is reconstructed by aggregating bars on the chart (primary) timeframe and detecting the calendar-date roll-over. The EA only ever reads the chart timeframe — there are no indicator handles to create, configure, or maintain.

How It Works

1. Building the Pivot Levels

On every tick the EA tracks the running high, low and close of the current calendar day on the chart timeframe. When the calendar date rolls over, it finalizes the day that just ended and recomputes the classic floor pivots from that completed day's OHLC:

```
PP = (High + Low + Close) / 3
R1 = 2 × PP - Low          S1 = 2 × PP - High
R2 = PP + (High - Low)    S2 = PP - (High - Low)
```

The day's range, `PrevRange = High - Low`, is stored and used to scale every tolerance and distance in the strategy. Pivots only become active once a full prior day has been captured (`PrevRange > 0`).

2. Detecting the Reversal Setup

The EA acts **once per completed bar**. It examines the two most recently closed candles — `c1` (the latest) and `c2` (the one before it) — and tests for a true engulfing pattern:

- **Bullish engulfing:** `c2` is bearish, `c1` is bullish, and `c1`'s body fully engulfs `c2`'s body.
- **Bearish engulfing:** `c2` is bullish, `c1` is bearish, and `c1`'s body fully engulfs `c2`'s body.

A pattern only qualifies as a setup if the candle physically interacted with a pivot. The wick must reach *into* the level within a tolerance band, and the candle must close back on the correct side of it:

- **Long fade:** a bullish engulfing whose low dips into a support pivot (`S1`, `S2`, or `PP`) and whose close is back above it.
- **Short fade:** a bearish engulfing whose high spikes into a resistance pivot (`R1`, `R2`, or `PP`) and whose close is back below it.

The tolerance band is `tol = ProximityPercent / 100 × PrevRange`. When several pivots qualify, the EA anchors to the **nearest touched level**.

3. Entry, Stop Loss and Take Profit

On a valid long fade the EA buys at the current Ask; on a short fade it sells at the current Bid. The stop is placed just beyond the engulfing extreme, and the target is a fixed reward:risk multiple of that stop distance:

```

Long:  SL = min(c1.Low, c2.Low) - buffer
       risk = entry - SL
       TP = entry + RewardRisk × risk

Short: SL = max(c1.High, c2.High) + buffer
       risk = SL - entry
       TP = entry - RewardRisk × risk

```

The stop `buffer` is a percentage of the engulfing candle's own range: $\text{buffer} = \text{SLBufferPercent} / 100 \times (\text{c1.High} - \text{c1.Low})$. A trade is only sent if the computed risk is positive. The entry position is tagged with the configured `Magic` number.

Worked example — long pivot fade

Suppose the prior day produced `S1 = 1.0820` with a range of 60 pips, and `ProximityPercent = 12`. The tolerance band is $0.12 \times 60 = 7.2$ pips. A bullish engulfing candle wicks down to 1.0815 (inside the band) and closes at 1.0838 — back above `S1`. The EA buys at the Ask, sets the stop a small buffer below 1.0815, and projects the take-profit at $1.6 \times$ that risk. `S1` becomes the anchored pivot for the hedge logic.

4. The Hedge — Turning a Failed Fade into a Breakout

Once a fade is live, the EA watches the anchored pivot. If price closes decisively through it — beyond a breakout buffer of $\text{BreakoutPercent} / 100 \times \text{PrevRange}$ — the reversal thesis is considered broken:

- A **long fade** whose anchored support closes below it → the EA opens a **short breakout** hedge.
- A **short fade** whose anchored resistance closes above it → the EA opens a **long breakout** hedge.

The hedge is tagged with `Magic + 1` so it is tracked independently of the original fade, and it uses the same buffer-based stop and reward:risk target. Only **one hedge per setup** is allowed, and the hedge only fires when `EnableHedge = 1`.

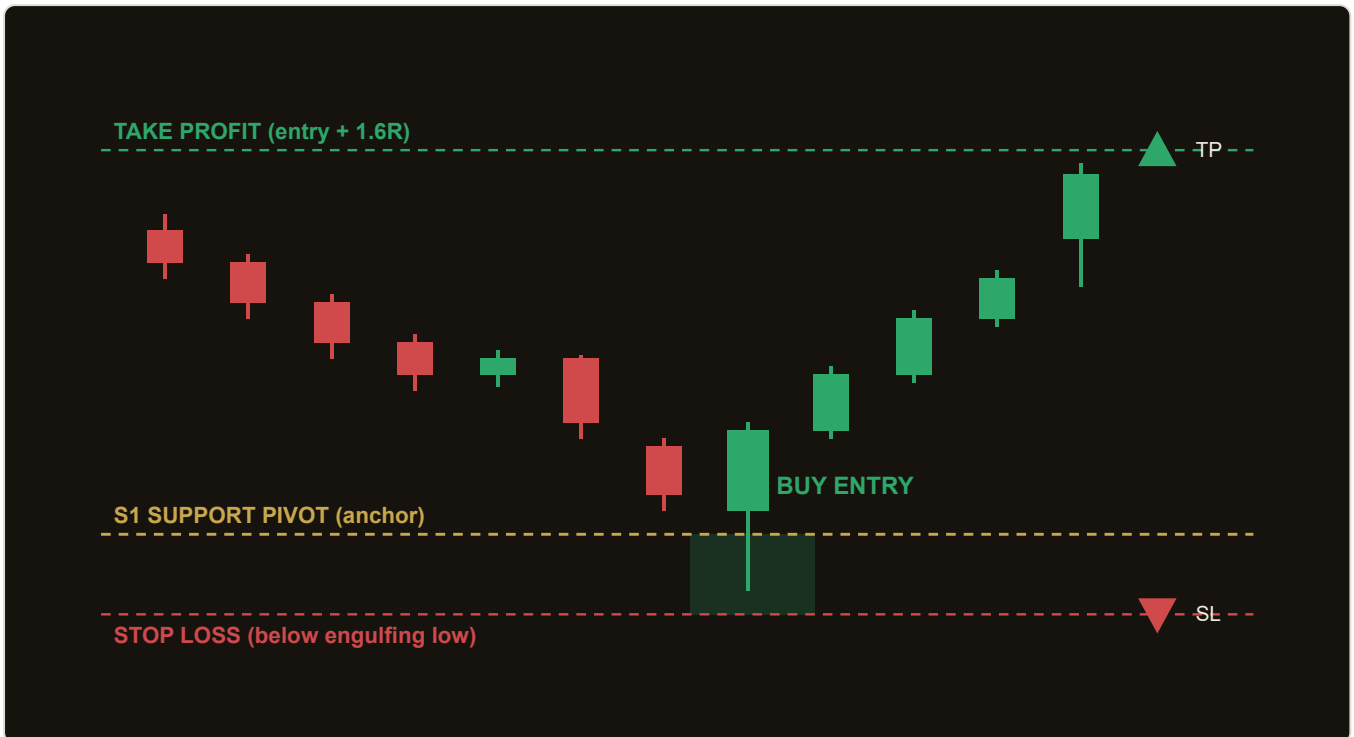
5. Setup Lifecycle & Gating

- An active setup expires after `SetupExpiryBars` completed bars if no hedge condition is met.
- A new reversal setup is only sought when no setup is active *and* no position with the entry `Magic` is already open on the symbol.
- All logic runs on bar close only — intrabar noise is ignored.

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 **long**

pivot fade: a bullish engulfing candle wicks below the **S1** support pivot, closes back above it, and triggers a buy that runs to its reward:risk target.



Illustrative example only. Actual market behaviour varies.

What the hedge would do here. If the engulfing candle had instead closed and then price had pushed *below* **S1** by the breakout buffer (out the bottom of the green zone), the long fade would be abandoned and a short breakout position — tagged **Magic + 1** — would be opened to ride the continuation downward.

Parameters

Parameter	Default	Description
Lots	0.10	Fixed trade volume in lots for both the fade entry and the hedge. Range 0.01–1.00, step 0.01.
RewardRisk	1.6	Take-profit distance as a multiple of the stop-loss (risk) distance. Range 0.5–4.0, step 0.1.
ProximityPercent	12.0	Pivot tolerance band as a percentage of the prior day's range. Defines how close a wick must come to a pivot to count as a touch. Range 2.0–40.0, step 1.0.
SIBufferPercent	12.0	Extra stop padding beyond the engulfing extreme, as a percentage of the engulfing candle's own range. Range 0.0–60.0, step 2.0.
BreakoutPercent	18.0	How far price must close through the anchored pivot (as a percentage of the prior day's range) to invalidate the fade and trigger the hedge. Range 5.0–60.0, step 1.0.
SetupExpiryBars	6	Number of completed bars an active setup remains eligible for a hedge before it expires. Range 1–30, step 1.
EnableHedge	1	Master switch for the hedge logic: 1 = enabled, 0 = fade-only (no continuation hedge). Range 0–1.
Magic	1001	Magic number tagging fade entries. The hedge uses <code>Magic + 1</code> so the two legs are tracked independently.

Recommended Settings

Because the EA reconstructs daily pivots from the chart timeframe, it is designed to run on an **intraday timeframe** that produces several bars per session. The defaults are a sensible starting point.

- **Timeframe:** H1 is the recommended baseline. M30 gives more setups with more noise; H4 produces fewer, higher-quality fades.
- **Symbols:** liquid majors with clean session structure (e.g. EURUSD, GBPUSD, XAUUSD) where pivot reactions are most reliable.
- **Reward:Risk:** the 1.6 default balances hit-rate against payoff. Raise toward 2.0+ for trend-friendly instruments; lower toward 1.2 for choppy ranges.
- **Hedge:** keep `EnableHedge = 1` on trending instruments so failed fades are recovered as breakouts. Set it to 0 if you want a pure mean-reversion behaviour.

Tip — tuning proximity. If the EA rarely triggers, widen `ProximityPercent` so wicks qualify as pivot touches more easily. If it fires on weak reactions far from a level, tighten it. Because the band scales with the prior day's range, it adapts automatically to volatile and quiet days.

Note on hedging mode. The hedge opens an opposing position tagged `Magic + 1` while the original trade may still be open. Ensure your broker account permits **hedging** (not netting) so both legs can coexist, and account for the combined exposure of two `Lots`-sized positions when sizing risk.

How to Install on MetaTrader 5

- 1 Copy `PivotAnchorEngulfingHedge.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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