

Pivot Confluence Engulfing

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price-Action Reversal	Single TF — H1 recommended	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

Pivot Confluence Engulfing is a pure price-action reversal Expert Advisor that fuses two classic, objective concepts into a single high-conviction signal. It does not rely on lagging oscillators or curve-fit thresholds — instead it asks two simple questions at the same time: *is price at a level that matters?* and *is that level being actively defended?*

The two ingredients are:

- **Floor-trader pivot levels** — objective support and resistance (PP, R1/R2, S1/S2) derived from a rolling window of completed bars that stands in for the "prior session".
- **Engulfing candle confirmation** — a decisive bullish or bearish engulfing candle showing that buyers or sellers have stepped in to defend the level.

An engulfing candle on its own is noisy, and a pivot touch on its own is just a line on the chart. The edge of this strategy is the **confluence**: the EA only trades when both align — a bullish engulfing that pierces and reclaims a **support** pivot (demand defending the level), or a bearish engulfing that pierces and rejects a **resistance** pivot (supply defending it). That requirement filters out the bulk of false engulfings that fire harmlessly in the middle of a range.

Single timeframe only. Every bar, ATR and pivot calculation is performed on the chart's own timeframe. There is no multi-timeframe logic to configure — attach the EA to the timeframe you want it to trade and it does the rest.

How It Works

The EA evaluates its logic **once per completed bar** (using a new-bar guard), and works only with closed candles to avoid acting on the still-forming bar. On each new bar it runs the following pipeline.

1. History & volatility check

The EA needs enough closed bars to build its pivots, compute ATR and inspect the engulfing pair. The minimum required is `PivotLookback + AtrPeriod + 4` bars. If history is insufficient it simply waits. It then reads the **Average True Range** (`AtrPeriod`) of the most recently closed bar — ATR is the single volatility yardstick used to scale tolerance, stops and targets, so the same parameters adapt automatically across instruments and market regimes.

2. Building the pivots

From the window of `PivotLookback` bars *before* the engulfing pair, the EA takes the highest high (`hi`), the lowest low (`lo`) and the closing price of the bar nearest the pair (`refClose`), then computes the classic floor-trader levels:

```
PP = (hi + lo + refClose) / 3
R1 = 2 × PP - lo           S1 = 2 × PP - hi
R2 = PP + (hi - lo)       S2 = PP - (hi - lo)
```

Support levels (`S2`, `S1`, `PP`) are candidates for long setups; resistance levels (`R2`, `R1`, `PP`) are candidates for short setups.

3. Detecting the engulfing pair

The two most recent closed bars are inspected — `cur` (the confirmation candle) and `prev` (the candle being engulfed). Two filters apply:

- **Decisiveness:** the body of `cur` must be at least `MinBodyAtrMult × ATR`. Thin, indecisive candles are ignored.
- **Engulfing shape:** a **bullish engulfing** is an up-candle whose body fully covers the prior down-candle's body; a **bearish engulfing** is a down-candle whose body fully covers the prior up-candle's body.

4. The confluence test (entry trigger)

A trade fires only when the engulfing candle also *touches* the right kind of pivot, where the touch tolerance is

$\text{ConfluenceAtrMult} \times \text{ATR}$:

- **Long:** a bullish engulfing whose low dips to (or through) a support pivot but whose close finishes *back above* it — $\text{low} \leq \text{level} + \text{tol} \ \&\& \ \text{close} > \text{level}$. Buyers reclaimed the level.
- **Short:** a bearish engulfing whose high pokes to (or through) a resistance pivot but whose close finishes *back below* it — $\text{high} \geq \text{level} - \text{tol} \ \&\& \ \text{close} < \text{level}$. Sellers rejected the level.

5. Stops, targets & entry

Entries are taken at the current market price (Ask for longs, Bid for shorts). Risk is anchored to volatility and to the structure of the signal candles:

- **Long stop:** placed below $\text{min}(\text{cur.Low}, \text{prev.Low}) - 0.10 \times \text{ATR}$. If that is tighter than $\text{StopAtrMult} \times \text{ATR}$, the stop is widened to the ATR floor so it is never too close.
- **Short stop:** placed above $\text{max}(\text{cur.High}, \text{prev.High}) + 0.10 \times \text{ATR}$, with the same ATR-floor protection.
- **Take-profit:** set at a fixed reward-to-risk multiple — $\text{TP distance} = \text{TargetRR} \times \text{stop distance}$.

One position at a time. The EA holds at most a single open position per symbol and magic number. It will not pyramid or hedge — once a trade is open it waits for the stop or target to resolve before looking for the next setup.

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** setup: price sells off into a support pivot, prints a bullish engulfing candle that reclaims the level, and the EA enters with a stop below the pair and a take-profit at the configured reward:risk.



Illustrative example only. Actual market behaviour varies.

Parameters

All inputs are exposed in the MT5 EA properties dialog. Defaults are tuned for a balanced profile; the Min/Max/Step hints reflect the optimization ranges defined in the strategy.

Parameter	Default	Description
PivotLookback	24	Number of completed bars that define the prior "session" window used to build the pivot levels. Range 8–96, step 4. Larger values produce slower, more significant pivots.
AtrPeriod	14	ATR length used as the volatility yardstick for touch tolerance, stops and targets. Range 7–28, step 1.
ConfluenceAtrMult	0.40	How close (in ATR) the candle's wick must come to a pivot to count as a touch. Range 0.10–1.00, step 0.05. Higher = looser confluence, more signals.
MinBodyAtrMult	0.60	Minimum engulfing body size as a fraction of ATR for the candle to count as "decisive". Range 0.20–1.50, step 0.10. Higher = stricter, fewer but stronger signals.
StopAtrMult	1.20	ATR-floor stop distance: the stop is never placed closer than $\text{StopAtrMult} \times \text{ATR}$ from entry. Range 0.50–3.00, step 0.10.
TargetRR	1.80	Reward-to-risk ratio. Take-profit distance = $\text{TargetRR} \times \text{stop distance}$. Range 0.80–4.00, step 0.10.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.00, step 0.01.
Magic	7720	Magic number identifying this EA's positions. Use a unique value per chart so multiple EAs do not interfere with one another.

Recommended Settings

The defaults are a sensible starting point on liquid instruments. Use the guidance below as a baseline and always validate with a Strategy Tester run on your own broker's data before going live.

SUGGESTED BASELINE

- **Instruments:** major FX pairs (e.g. EUR/USD, GBP/USD) and liquid indices, where pivots and engulfing patterns are most meaningful.
- **Timeframe:** H1 is a good balance of signal frequency and reliability. Higher timeframes (H4) yield fewer, higher-quality reversals; lower timeframes produce more noise.
- **Risk per trade:** keep `Lots` sized so that a full $\text{StopAtrMult} \times \text{ATR}$ loss is a small, fixed percentage of account equity.

Tuning the signal quality

For fewer but cleaner trades, raise `MinBodyAtrMult` toward 0.90–1.10 and tighten `ConfluenceAtrMult` toward 0.25. For more frequent setups in quieter conditions, loosen `ConfluenceAtrMult` toward 0.60 and lower `MinBodyAtrMult` toward 0.40 — at the cost of more false signals.

Tip: Because every threshold is scaled by ATR, you rarely need to re-tune the EA when switching between instruments of different volatility — the same parameter set adapts automatically. Re-optimize only `PivotLookback` and `TargetRR` when changing timeframe.

How to Install on MetaTrader 5

- 1 Copy `PivotConfluenceEngulfing.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

Before going live: run the EA in the MT5 **Strategy Tester** on quality historical data, then on a demo account, to confirm behaviour on your broker's spreads and execution before committing real capital.

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.