

# Engulfing Pivot Guard

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Price-Action Pivot (Reversal & Breakout, Hedged)

## TIMEFRAME

M15 / M30 / H1

## WEBSITE

[www.algotbot.live](http://www.algotbot.live)

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## Overview

**Engulfing Pivot Guard** is a pure price-action Expert Advisor — it uses **no indicators** whatsoever (no moving averages, RSI, ATR or Bollinger Bands). Its only signal is the classic two-candle **engulfing** pattern, read against a set of classic **floor pivots** (the central pivot PP and the first outer levels R1 and S1) recomputed from the chart's own timeframe on every closed bar.

The core idea is that an engulfing candle is the cleanest single sign that order flow has flipped: the new candle's body fully swallows the prior one, so the side that had just controlled price has been overwhelmed.

*Where* that flip happens decides what it means:

- At an **outer pivot** (R1 / S1) an engulf signals **exhaustion** — the level held and price is expected to mean-revert back toward the central pivot PP. This is the **Reversal** trade.
- At the **central pivot** (PP) an engulf signals **acceptance** — price has chosen a side and is expected to run on to the next outer pivot. This is the **Breakout** trade.

Both edges share one failure mode: the level being leaned on gives way. Rather than absorb a full stop, the EA deploys an opposite **hedge leg** — "the guard" — that rides the break the new way and offsets the losing base leg. If price later reclaims the level in the base's original favour, the guard is dropped and the base is left to recover. The hedged pair is banked at the **basket** level the instant net floating profit turns sufficiently green.

**Why it scales to any market:** every distance in the strategy is measured as a fraction of the pivot  $\text{range} = H - L$  (which also equals  $R1 - S1$ ). There are no hard-coded pip values, so the same settings adapt automatically across symbols and timeframes.

## How It Works

### 1. Floor pivots (recomputed every closed bar)

On the primary timeframe only, over the last `PivotLookback` closed bars the EA takes the highest high `H` and the lowest low `L`, and uses the signal candle's close `C`:

```
PP = (H + L + C) / 3
R1 = 2 * PP - L
S1 = 2 * PP - H
range = H - L          (== R1 - S1)
```

The `range` value sizes every buffer in the strategy — entry zones, the guard trigger, the stop pad, the reclaim distance and the minimum reward — so all distances scale to the instrument automatically.

### 2. The engulfing trigger

The just-closed candle (the "signal" candle) must fully engulf the candle before it, and its body must be at least `EngulfFactor` times the prior body:

- **Bullish engulf:** the signal candle closes up, the prior candle closed down, the signal opens at or below the prior close and closes at or above the prior open.
- **Bearish engulf:** the mirror image — the signal candle closes down and swallows a prior up candle.

If neither pattern is present, no trade is sought for that bar.

### 3. Entry modes (flat only — four mirror-image rules)

Reversal setups are checked first so a breakout cannot double-fire on the same bar. The signal candle must reach the relevant pivot within a tolerance of  $\text{ZoneFrac} \times \text{range}$ .

- **Reversal Long** — a bullish engulf whose low dipped into the S1 zone but closed back above S1. Buy the exhaustion, target PP.
- **Reversal Short** — a bearish engulf whose high pierced the R1 zone but closed back below R1. Sell the exhaustion, target PP.
- **Breakout Long** — a bullish engulf that closes clearly above PP from the PP zone. Buy the acceptance, target R1.

- **Breakout Short** — a bearish engulf that closes clearly below PP from the PP zone. Sell the acceptance, target S1.

#### 4. Base stop & take-profit

The base take-profit is the structural pivot target (a clean scalp from pivot to pivot), floored at a minimum reward of  $\text{RewardFrac} \times \text{range}$ . The base stop is deliberately placed a structural pad ( $\text{StopFrac} \times \text{range}$ ) beyond the guard trigger, so the guard always engages before the hard stop is ever reached. Both prices are also clamped to the broker's minimum stop distance.

#### 5. The Guard (the signature hedge mechanic)

While a lone base leg is open, the EA watches the leaned-on level on every tick:

- **Raise the guard** — if price travels  $\text{GuardFrac} \times \text{range}$  beyond the level (the level has failed), an opposite market leg is opened: a genuine locked hedge that rides the break the new way.
- **Drop the guard** — if price later reclaims the level by  $\text{ReclaimFrac} \times \text{range}$  in the base's favour, only the guard leg is closed and the base is left to recover.

#### 6. Basket money management (the dominant exit)

While any exposure is held — on every tick, not just on new bars — the EA sums the net floating P/L (profit + swap) of all its legs:

- Net floating P/L  $\geq$  **BasketTpMoney** → close **everything** (banks the recovery or win).
- Net floating P/L  $\leq$  **-BasketSIMoney** → flatten everything (a hard ceiling for the worst case: a strong one-way trend after the guard has locked).

#### 7. Execution flow

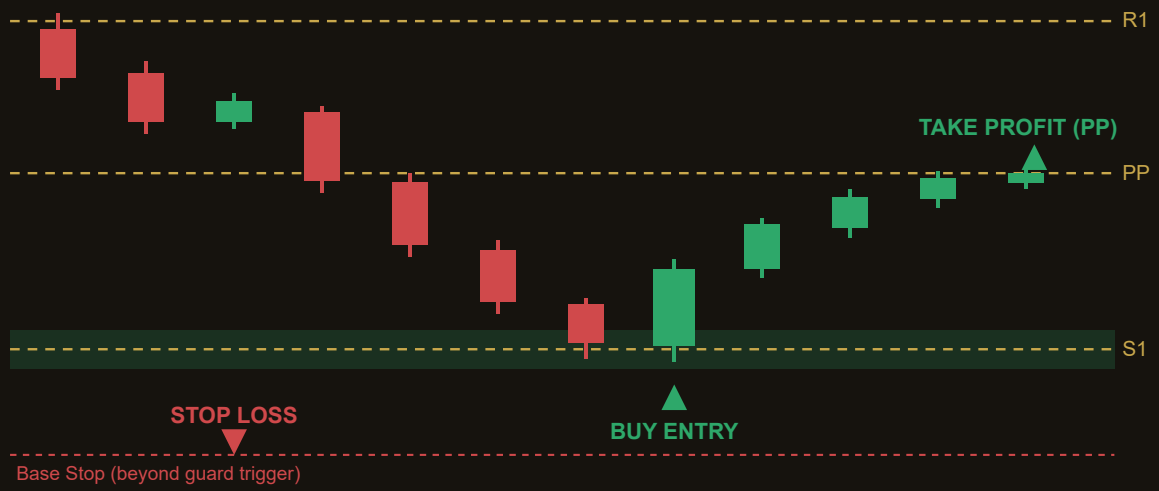
The logic is split into two cadences. Basket money management and guard/reclaim handling run on **every tick**, so risk control is never delayed. Fresh entries are gated to **one pass per freshly-closed bar** and only when the account is completely flat for this EA's magic number. A spread filter ( $\text{MaxSpreadPoints}$ ) blocks new entries when conditions are too costly.

## Strategy in Action

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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 **Reversal Long**: price falls into the S1 support zone, a bullish engulfing candle swallows the prior down candle and closes back above S1, the EA buys the exhaustion, and price mean-reverts up to the central pivot PP for the take-profit.

Reversal Long — Bullish Engulf at S1, target PP



*Illustrative example only. Actual market behaviour varies.*

## Parameters

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Parameter	Default	Description
PivotLookback	24	Number of closed bars whose H / L / C define the floor pivots. Range 5–150, step 1.
EngulfFactor	1.00	The engulfing body must be at least this multiple of the prior body ( $\geq 1$ = a full engulf). Range 0.80–3.00, step 0.05.
ZoneFrac	0.12	How close to a pivot the signal candle must reach, as a fraction of the pivot range. Range 0.02–0.60, step 0.01.
GuardFrac	0.25	Distance beyond the leaned-on level that confirms it has failed and raises the guard (fraction of range). Range 0.05–1.00, step 0.05.
StopFrac	0.30	Extra base-stop pad placed beyond the guard trigger (fraction of range). Range 0.05–2.00, step 0.05.
ReclaimFrac	0.20	Reclaim past the level, in the base's favour, that drops the guard (fraction of range). Range 0.05–1.50, step 0.05.
RewardFrac	0.70	Minimum reward distance for the base take-profit (fraction of range). Range 0.20–4.00, step 0.10.
BasketTpMoney	25.0	Close the whole basket once net floating profit reaches this amount (account currency). Range 5.0–2000.0, step 5.0.
BasketSIMoney	300.0	Flatten the whole basket once net floating loss reaches this amount (account currency). Range 50.0–100000.0, step 50.0.
MaxSpreadPoints	50	Skip new entries while the spread (in points) exceeds this value (0 = filter off). Range 0–500, step 5.
Lots	0.10	Base and guard leg volume. Range 0.01–1.00, step 0.05.
Magic	5310	EA magic number used to identify and manage this strategy's positions. Range 0–9,999,999, step 1.

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## Recommended Settings

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The strategy is designed for liquid, range-respecting instruments where pivot exhaustion and acceptance alternate cleanly.

- **Symbols:** a liquid FX major such as EUR/USD or AUD/USD, or XAU/USD (gold).

- **Timeframes:** M15, M30 or H1. The EA runs on whichever timeframe the chart is set to at attach/backtest time.
- **Spread filter:** keep `MaxSpreadPoints` tight enough to block entries during costly, illiquid periods (news, rollover).

### Sizing the basket to your account

Treat `BasketSlMoney` as the realistic worst-case loss per cycle and `BasketTpMoney` as the target bank. With the defaults the EA risks up to about 300 (account currency) on a fully adverse, one-way move to take roughly 25 per banked cycle on 0.10 lots. Scale both money figures and `Lots` together to your balance and risk tolerance — never raise lot size without raising the basket stop to match.

**Tuning tips:** a larger `PivotLookback` produces wider, slower-moving pivots (fewer, bigger setups); a smaller value reacts faster. Raise `EngulfFactor` above 1.0 to demand more decisive engulfing candles and filter out marginal patterns. `GuardFrac`, `StopFrac` and `ReclaimFrac` together govern how quickly the guard engages and releases — widen them to give a level more room before hedging.

**Hedging accounts required.** The guard mechanic opens an opposite leg on the same symbol while the base leg is still open. This requires a **hedging** account type in MT5; on a netting account the opposite order would close or reduce the base position instead of forming a true hedge, which changes the strategy's behaviour entirely.

## How to Install on MetaTrader 5

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- 1 Copy `EngulfingPivotGuard.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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