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Maximize Your Profits

Golden Ratio Pullback

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend Continuation (Pullback)	H1 – H4	www.algobot.live

Overview

Golden Ratio Pullback is a Fibonacci golden-pocket, trend-continuation Expert Advisor. It is built on a simple observation about how strong trends actually move: they advance in sharp *impulse legs* and then pause for shallow *retracements* before continuing. The most reliable place to re-join such a trend is the "golden pocket" — the zone between the 0.50 and 0.618/0.65 retracement of the last impulse leg.

Rather than trying to pick tops and bottoms, Golden Ratio Pullback waits for the market to prove its trend, waits again for a pullback into the golden pocket, and only then joins in the direction of the prevailing move once a **rejection candle** confirms buyers (or sellers) have stepped back in. Every trade is protected by an ATR-buffered stop beyond the rejection bar and closed at a fixed reward-to-risk target.

The EA operates on a **single timeframe** — the chart it is attached to — and evaluates its logic **once per completed bar**, so signals never repaint intrabar.

How It Works

On each newly-closed bar the EA runs a short, ordered checklist. A trade is only sent when *every* condition lines up.

1. Trend direction — the EMA filter

An Exponential Moving Average of closing prices (`TrendEmaPeriod`, default 50) defines the active trend. The strategy only takes **long** setups when the signal bar closes *above* the EMA, and only **short** setups when it closes *below* it. Trades are therefore always aligned with the dominant direction — this is a continuation system, never a counter-trend one.

2. The impulse leg — swing high / swing low

The EA scans the most recent `SwingLookback` bars (default 24) to find the highest high and lowest low. The distance between them is the *range* of the last impulse leg, and it becomes the anchor from which the golden pocket is measured.

3. Noise filter — minimum leg size

A pullback is only meaningful if the leg that preceded it was real. The EA requires the leg's range to be at least `MinRangeAtr` × ATR (default 1.5 × ATR). Legs smaller than this are treated as chop and skipped entirely.

```
range = swingHigh - swingLow
if (range < MinRangeAtr * ATR)  =>  skip (leg too small / noise)
```

4. The golden pocket — the entry zone

The golden pocket is the band between the `FibPocketStart` (0.50, the shallower level) and `FibPocketEnd` (0.65, the deeper level) retracements of the impulse leg. In an uptrend it is measured down from the swing high; in a downtrend it is measured up from the swing low.

> **Self-correcting bounds:** if the two Fibonacci levels are entered inverted (start deeper than end), the EA automatically swaps them on initialisation so that `FibPocketStart` is always the shallower level. You cannot mis-configure the pocket into an invalid state.

5. The trigger — touch, hold, and reject

The just-closed bar (the "rejection candidate") must do three things at once:

- **Touch the pocket** — its wick must reach into the zone (low dips into the pocket for longs; high pops into it for shorts).
- **Hold the pocket** — it must *not* close beyond the deep edge of the zone (close stays above the deep level for longs; below it for shorts).
- **Reject with a body** — it must be a bullish candle (close > open) for a long, or a bearish candle (close < open) for a short.

Together these confirm price probed the golden pocket and was pushed back out in the direction of the trend — the signature of a healthy continuation.

6. Stop loss — ATR buffer beyond the rejection bar

The stop is placed just past the extreme of the rejection candle, cushioned by volatility:

- **Long:** `SL = signal.Low − ATR × AtrStopMult`
- **Short:** `SL = signal.High + ATR × AtrStopMult`

With the default `AtrStopMult` of 1.20, the stop sits far enough from the bar to survive a normal retest but tight enough to keep risk contained.

7. Take profit — fixed reward-to-risk

Once the stop distance (the risk) is known, the target is set at a fixed multiple of it via `RewardRisk` (default 1.80):

```
risk = |entry - stopLoss|
TP   = entry ± risk * RewardRisk      // + for longs, - for shorts
```

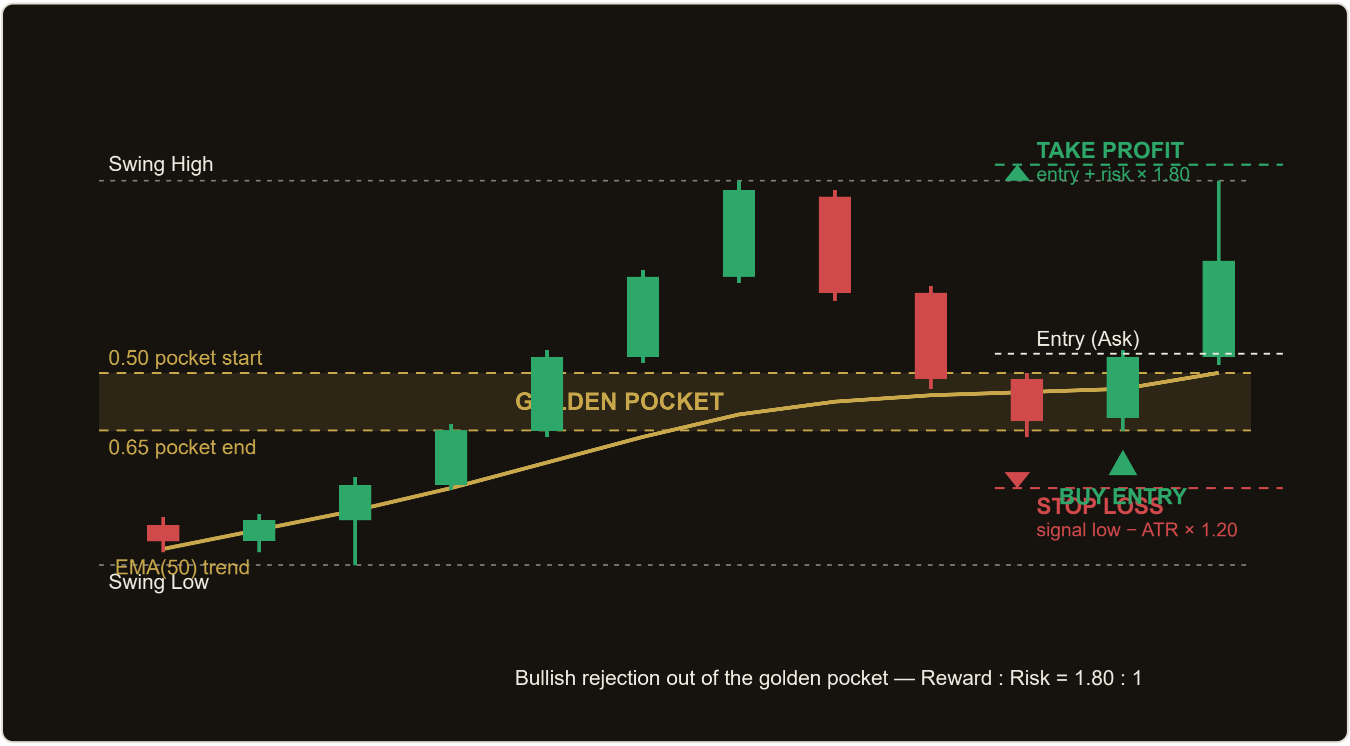
A trade only opens if the computed risk is positive; degenerate setups are discarded.

8. Position management

- **One position per magic number** at a time on the symbol — the EA will not stack or pyramid.
- Logic runs **once per completed bar**, keyed off the advance of bar-0's timestamp, so decisions are made on closed data only.
- Entries use the live **Ask** (long) or **Bid** (short); stop and target are broker-normalised to the symbol's digits.

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.

Walk-through of the example above

Price rallies in a clean impulse leg from the swing low to the swing high (the EMA rising beneath it confirms the uptrend). It then retraces into the golden pocket. The final red bar dips its wick into the 0.50–0.65 zone, but the next candle closes back above the deep edge as a bullish body — a rejection. The EA buys at the Ask, sets the stop an ATR buffer below the rejection bar's low, and targets 1.80× that risk, which the continuation leg reaches.

Parameters

Parameter	Default	Description
TrendEmaPeriod	`50`	EMA period applied to closing prices; sets the trend direction. Longs only when price closes above it, shorts only below. Range 20–120, step 5.
SwingLookback	`24`	Number of bars scanned to locate the most recent impulse leg (its swing high and swing low). Range 10–60, step 2.
FibPocketStart	`0.50`	Shallower boundary of the golden pocket, as a fraction of the impulse-leg range. Range 0.35–0.60, step 0.05.
FibPocketEnd	`0.65`	Deeper boundary of the golden pocket. Auto-swapped with start if entered inverted. Range 0.50–0.80, step 0.05.
AtrPeriod	`14`	ATR period used for both the stop-loss buffer and the minimum leg-size filter. Range 7–28, step 1.
AtrStopMult	`1.20`	ATR multiple placed beyond the rejection bar's extreme to set the stop loss. Range 0.50–3.00, step 0.10.
RewardRisk	`1.80`	Fixed reward-to-risk ratio that sets the take-profit distance from the stop. Range 1.00–3.50, step 0.10.
MinRangeAtr	`1.50`	Minimum impulse-leg size in ATR multiples; smaller legs are rejected as noise. Range 0.50–4.00, step 0.50.
Lots	`0.10`	Fixed trade volume in lots. Range 0.01–1.00, step 0.01.
Magic	`2027`	Magic number identifying this EA's positions, so it manages only its own trades on the symbol.

Recommended Settings

Golden Ratio Pullback is designed for markets that trend and then retrace cleanly. It performs best where impulse legs are well-defined rather than choppy.

- **Instruments:** trending major FX pairs (e.g. EUR/USD, GBP/USD, USD/JPY) and liquid indices.
- **Timeframe:** H1 to H4 — long enough for the EMA-50 trend and 24-bar swing window to be meaningful, short enough to produce regular setups.
- **Golden pocket:** the 0.50 / 0.65 default captures the classic golden zone. Widen `FibPocketEnd` toward 0.70–0.80 for deeper pullbacks in stronger trends.

- **Risk model:** keep `RewardRisk` at 1.80 as a starting point; the ATR-based stop already adapts to volatility, so leave `AtrStopMult` near 1.20 unless a symbol is unusually noisy.

> **Tuning tip:** raise `MinRangeAtr` if you get too many entries in ranging conditions — it forces the EA to wait for larger, higher-quality impulse legs before considering any pullback. Lower it only on strongly trending, low-noise instruments.

> **Always validate before going live.** Backtest and forward-test on a demo account with your broker's spreads and execution before committing real capital. Optimised parameters that look ideal on historical data frequently under-perform out of sample.

How to Install on MetaTrader 5

1. Copy `GoldenRatioPullback.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

> 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.