Kinetic Thrust Rider

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Momentum Breakout / Continuation	M15 – H1	www.algobot.live

Overview

Kinetic Thrust Rider is a pure price-action and momentum continuation Expert Advisor that uses **no traditional indicators**. Instead of reading an oscillator or moving average, it derives everything it needs directly from raw bar data: closes, highs, lows, opens and ranges.

The strategy is built on a single insight — **real momentum is not just a big move, it is an efficient one**. A market can travel a long way while wandering back and forth (chop), or it can travel the same distance in a clean, straight push (a true thrust). Kinetic Thrust Rider quantifies this with a self-computed *kinetic efficiency* ratio and only rides moves that are both powerful *and* efficient.

To avoid chasing noise, three independent conditions must agree before any trade is taken: **momentum** (efficient directional thrust), **structure** (a genuine break of recent highs or lows), and the **candle** (a confirming close in the trade direction). Risk is controlled with a volatility-based stop and a fixed reward-to-risk take-profit, and only one position is held at a time.

How It Works

Kinetic Thrust Rider evaluates the market **once per closed bar** on the chart's primary timeframe. It never acts on the still-forming bar — when the current bar advances, the just-completed bar (the "trigger" bar) is analysed. The engine keeps a rolling history of recent bars and computes three measures.

1. Momentum — Kinetic Efficiency

Over the last `MomWindow` bars, the EA compares the *net* distance price travelled against the *total* distance it covered bar-by-bar:

```
efficiency = (close[now] - close[now - W]) / Σ |close[i] - close[i-1]|
```

This signed ratio sits in roughly `[-1, +1]`:

- Near **+1** → price rose almost in a straight line — a clean **bullish thrust**.
- Near **-1** → price fell in a straight line — a clean **bearish thrust**.
- Near **0** → lots of back-and-forth with little net progress — **chop** (no trade).

A signal requires the efficiency to be at or beyond `EfficiencyThresh` (e.g. ≥ +0.55 for longs, ≤ −0.55 for shorts).

2. Structure — Breakout Confirmation

Momentum alone is not enough. The trigger bar's close must also break the extreme of the prior `BreakoutLookback` bars (excluding the trigger bar itself). For a long, the close must be **above the prior high**; for a short, **below the prior low**. This ensures the thrust is breaking genuine market structure, not just drifting inside a range.

3. The Confirming Candle

Finally, the trigger candle itself must confirm direction: a **bullish candle** (close > open) for longs, a **bearish candle** (close < open) for shorts. All three conditions must be true on the same bar.

> **Tip:** Because momentum, structure and candle direction must all agree, Kinetic Thrust Rider trades selectively. Expect fewer signals than a single-condition system — the trade-off is that each signal reflects a genuine, efficient breakout rather than random noise.

Entry Logic

- **Long:** `efficiency ≥ EfficiencyThresh` **AND** `close > priorHigh` **AND** bullish candle → market **Buy** at the Ask.
- **Short:** `efficiency ≤ -EfficiencyThresh` **AND** `close < priorLow` **AND** bearish candle → market **Sell** at the Bid.

Exit Logic — Stop Loss & Take Profit

Stops and targets are sized from current volatility, measured as the **average bar range** over the last `RangeLookback` bars (a pure price-action measure — no ATR indicator):

```
avgRange = average(High - Low) over RangeLookback bars
stopDist = avgRange × StopMult
Stop Loss   = entry - stopDist           (long)   /  entry + stopDist          (short)
Take Profit = entry + stopDist × RewardRatio (long) /  entry - stopDist × RewardRatio (short)
```

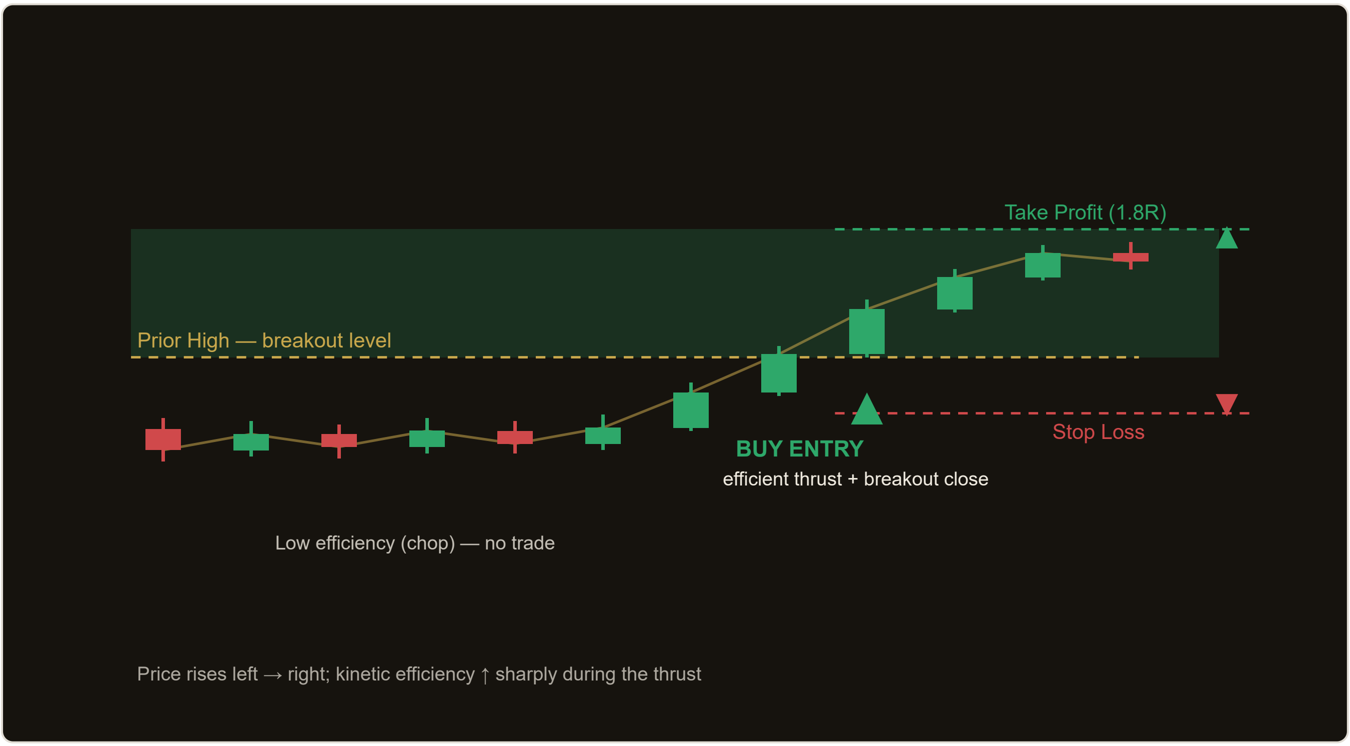
Once placed, the trade is managed entirely by its SL and TP — there is no trailing stop or partial close. The EA holds **only one open position per magic number** at a time and will not stack trades.

Worked example (long)

Suppose `avgRange = 0.00120`, `StopMult = 1.5` and `RewardRatio = 1.8`. Then `stopDist = 0.00180` (18 pips). A long entry at `1.10000` places the stop at `1.09820` and the take-profit at `1.10324` (32.4 pips) — a 1.8 : 1 reward-to-risk trade.

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.

Parameters

Parameter	Default	Description
MomWindow	`5`	Number of bars over which kinetic efficiency is measured. Smaller values react faster to short thrusts; larger values demand a longer, sustained move. Range 3–20.
EfficiencyThresh	`0.55`	Minimum absolute efficiency required to qualify as a thrust. Higher values demand cleaner, straighter moves (fewer but higher-quality signals). Range 0.30–0.90, step 0.05.
BreakoutLookback	`10`	Number of prior bars (excluding the trigger bar) whose high/low must be broken for a structure breakout. Range 3–40.
RangeLookback	`14`	Number of bars used to compute the average bar range (the volatility measure for stop sizing). Range 5–50.
StopMult	`1.5`	Stop distance as a multiple of average range: `stopDist = avgRange × StopMult`. Range 0.5–4.0, step 0.1.
RewardRatio	`1.8`	Take-profit distance as a multiple of the stop distance (reward-to-risk ratio). Range 0.5–5.0, step 0.1.
Lots	`0.10`	Fixed order volume in lots. Range 0.01–1.0, step 0.05.
Magic	`7340`	Magic number identifying this EA's trades. Use a unique value per chart so position management stays isolated from other EAs.

Recommended Settings

Kinetic Thrust Rider works best on liquid instruments with clean directional moves. Because its windows are short, intraday timeframes give the most timely signals.

- **Symbols:** Major FX pairs (EUR/USD, GBP/USD, USD/JPY) and major indices with tight spreads.
- **Timeframe:** M15 to H1. Lower timeframes increase signal frequency but are more sensitive to spread and noise.
- **Efficiency threshold:** Start at `0.55`. Raise toward `0.70` in choppy conditions for stricter, cleaner thrusts; lower toward `0.45` in strongly trending markets to capture more continuation entries.
- **Risk:** Keep `Lots` conservative and let the volatility-based stop adapt position risk to current market range. Default `StopMult 1.5` / `RewardRatio 1.8` targets a positive reward-to-risk per trade.

> **Note:** The EA requires a warm-up period before it can trade. It needs at least `max(MomWindow+1, BreakoutLookback+1, RangeLookback) + 1` completed bars of history, so allow the chart to build sufficient bars (or load history) before expecting signals.

How to Install on MetaTrader 5

1. Copy `KineticThrustRider.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

> **Tip:** Always validate parameters in the MT5 Strategy Tester and on a demo account before committing real capital. Optimise `EfficiencyThresh`, `BreakoutLookback` and the `StopMult` / `RewardRatio` pair to your chosen symbol and timeframe.

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.