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Market Maker Model

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price Action / Liquidity Reversal (Market Maker Buy and Sell Model)	M15 (designed for EURUSD; reads the chart timeframe, so other symbols and timeframes can be studied)	www.algobot.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

Market Maker Model is an educational Expert Advisor that studies a well-known price action concept: the Market Maker Buy Model and Sell Model. It uses no indicators at all. There are no moving averages, oscillators, bands, ATR or volume readings. It reads only closed candles: highs, lows, opens and closes.

The model looks for a four-stage sequence. First, price builds a sideways **original consolidation** box. Second, price leaves the box in a **sell program** (lower highs and lower lows) or, for the mirror image, a **buy program** (higher highs and higher lows). Third, a **liquidity sweep** takes price beyond the latest swing extreme and closes back inside, followed by a strong **displacement candle** that shifts market structure and leaves a **fair value gap (FVG)**. Fourth, the EA waits for the first return into that gap before it opens a position.

The approach is designed for markets that move from balance to a one-sided push and then reverse. It can be useful as a learning tool for people who want to see how swing structure, liquidity sweeps and fair value gaps can be defined with exact rules and tested in the Strategy Tester. Trading involves risk, and losses occur. This document is educational information only.

How It Works

Entry Logic

- All detection runs once per new bar, on closed candles only. The entry itself is checked on every tick.
- **Original consolidation:** a box of at least `RangeBars` candles must be genuinely sideways. The net drift from the first open to the last close must be no more than `MaxRangeDrift` times the box height, and at least 30% of the box candles must straddle the box midpoint.
- **Sell program (buy model):** after the box, price leaves downward. Every swing high stays below the box high and is lower than the one before, and at least `MinLegs` successive lower lows print below the box. Swings are confirmed with `SwingStrength` candles on each side.
- **Liquidity sweep:** a candle wicks below the most recent swing low and closes back above it. No candle may close through that low.
- **Displacement and market structure shift:** a bullish candle with a large body-to-range ratio (at least `DisplacementBody`) and the largest body of the previous `DisplacementLookback` candles must be the first to close above the last lower high. It must also leave a bullish fair value gap (the high of candle 1 is below the low of candle 3).
- **Entry:** the setup is armed. The first time the bid trades back down to the upper edge of the gap, the EA buys at market. That first return is the only entry for the setup.
- **Sell model:** the exact mirror. A box, a buy program of higher highs and higher lows, a sweep above the latest swing high, a bearish displacement and a bearish gap, then a sell on the first return up into the gap. The code mirrors prices so both models share one detector.
- A setup is dropped if price reaches the target or the sweep extreme before the return, if it is not filled within `SetupExpiryBars` bars, or after its first return has been used. Only one position is open at a time.

Exit Logic

- The EA does not manage the trade after entry. There is no trailing stop, break-even move or time exit.
- The position closes when price reaches either the stop-loss or the take-profit attached to the order.
- While a position is open, new setups are not armed, and any armed setup is cleared.

Stop-Loss and Take-Profit

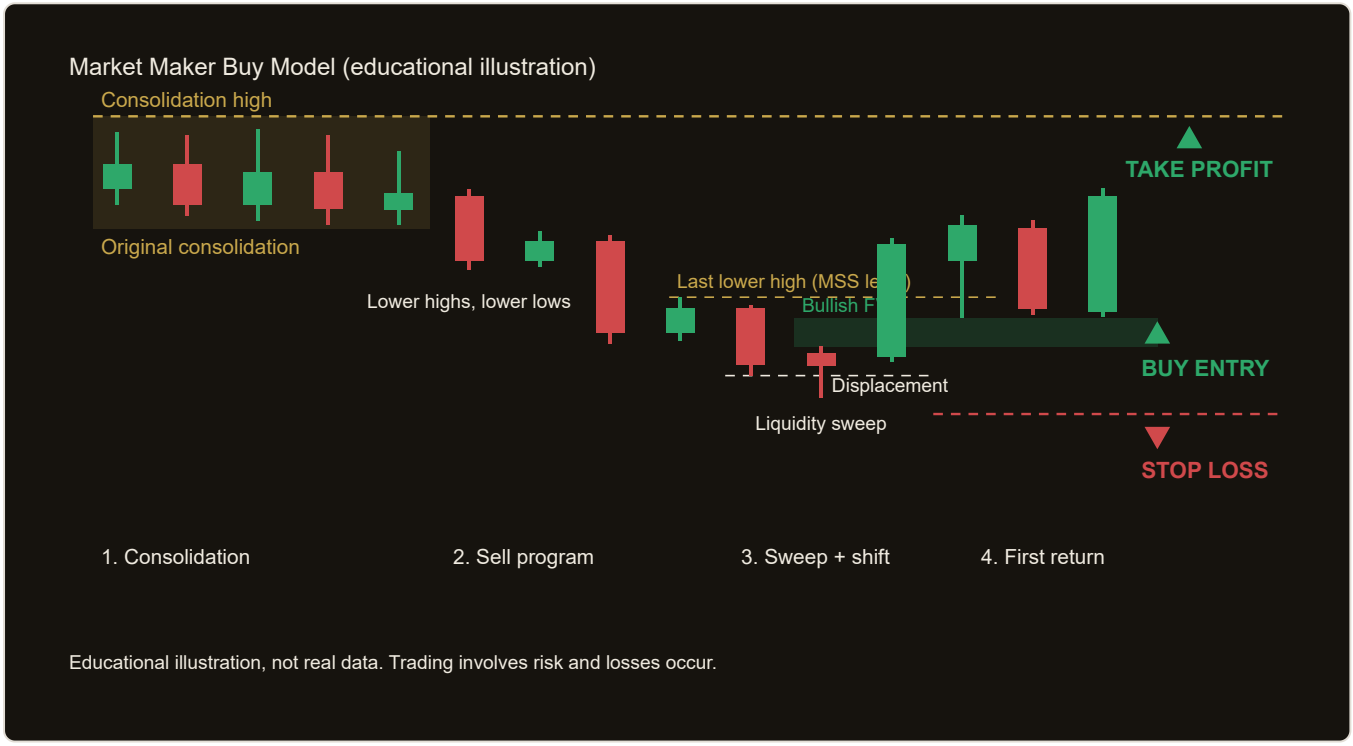
- **Buy stop-loss:** below the low of the sweep candle, minus `StopBufferPoints` points. **Sell stop-loss:** above the sweep high, plus the buffer and the current spread.
- **Take-profit:** the opposite edge of the original consolidation. The high of the box for a buy, the low of the box for a sell.
- **Minimum reward-to-risk:** a setup is armed only if the distance to the take-profit is at least `MinRR` times the distance to the stop. The ratio is checked again at the moment of entry using the live price. If it is no longer met, the trade is skipped.

- The trade is also skipped if the stop distance is not larger than the broker's minimum stop level.

> **Tip:** Run the EA in the Strategy Tester first and read the Experts log. Messages such as "MMBM armed" and "MMBM skipped" show when a setup formed and why a trade was or was not taken. This helps you learn how strict the pattern rules are. The model is selective and may go long periods without a signal.

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.

Example: one buy model sequence (illustrative, not real data)

Price moves sideways for about 10 candles, forming a box with a high of 1.1000. It then steps down with lower highs and lower lows. A candle wicks below the latest swing low at 1.0950 to reach 1.0940, then closes back above 1.0950. Next, a large bullish candle closes above the last lower high and leaves a fair value gap with an upper edge at 1.0968. The EA arms the setup. Later, the bid trades back down to 1.0968, so the EA buys at the ask. The stop-loss goes just below 1.0940, plus the buffer. The take-profit is 1.1000, the box high. The distance to the target is more than twice the distance to the stop, so the trade is allowed. The position then closes at the stop-loss or the take-profit. Either outcome is possible, and this example is for illustration only.

Parameters

Parameter	Default	Description
RangeBars	`10`	Minimum number of candles in the original consolidation box. Values below 10 are raised to 10. Optimization range 10 to 30.
MaxRangeDrift	`0.5`	Largest allowed net drift (first open to last close) in the box, as a fraction of the box height. Lower values demand a flatter box.
SwingStrength	`2`	Number of candles on each side used to confirm a swing high or swing low.
MinLegs	`2`	Minimum number of lower highs and lower lows (or higher highs and higher lows) in the program leaving the box. Minimum value 2.
MaxProgramBars	`60`	How far back from the sweep candle the EA may look for the original consolidation box.
DisplacementBody	`0.6`	Minimum body-to-range ratio of the displacement candle. Higher values demand a stronger, cleaner candle.
DisplacementLookback	`4`	The displacement candle must have a larger body than each of this many preceding candles.
MinRR	`2.0`	Minimum reward-to-risk ratio between the entry, the stop and the take-profit. Values below 2.0 are raised to 2.0.
SetupExpiryBars	`12`	Number of bars an armed setup stays valid while waiting for the first return into the fair value gap.
StopBufferPoints	`10`	Extra distance, in points, placed beyond the sweep extreme for the stop-loss.
Lots	`0.10`	Fixed trade volume. It is rounded down to the broker's volume step and limited to the allowed minimum and maximum.
Magic	`5150`	Magic number that identifies this EA's positions, so it ignores trades opened by other EAs or by hand.

Recommended Settings

- **Symbol and timeframe:** designed for EURUSD on M15. Other symbols and timeframes can be studied, but the default settings were written with EURUSD M15 in mind.

- **Risk per trade:** keep the volume small. Choose a `Lots` value so that a stop-loss hit is a small, acceptable share of the account. Losses are a normal part of trading.
- **Demo first:** run the EA on a demo account and in the Strategy Tester before considering anything else. Observe several setups from detection to exit.
- **Data quality:** use reliable tick or one-minute data in the tester. Results depend on spread, execution and broker conditions.
- **Optimization:** treat optimization ranges with care. Settings that fit past data do not carry over to future markets.
- **Account type:** the EA works on one symbol and one position at a time, and is intended for a single chart.

How to Install on MetaTrader 5

1. Copy `MarketMakerModel.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.