

## Inside Bar Strategy â Technical Summary

### Core Concept:

- Identify candles fully contained within the prior bar (inside bars).
- Track mother-bar range and wait for breakout close beyond the range.
- Supports inclusive/strict detection and multi-inside-bar sequences.

### Configuration Highlights:

- atr\_period (default 14): ATR window for volatility sizing.
- risk\_reward\_ratio (default 2.0): target multiples of risk.
- inside\_bar\_mode: inclusive, strict, sequence, or single.
- min\_mother\_bar\_size: ATR multiple gate for mother-bar significance.
- breakout\_confirmation: require close outside mother-bar (True by default).
- session\_filter: optional hour window (start/end) for trades.

### Signal Generation:

1. Preprocess OHLCV data; compute ATR and true range features.
2. Detect valid inside bars, linking each to its mother bar.
3. Optional session check; skip bars outside defined window.
4. Breakout logic:
  - â¢ Long: close/high pierces mother high (with confirmation).
  - â¢ Short: close/low breaks below mother low.
5. For each breakout create Signal with entry, stop, take profit via RRR.

### Risk Management:

- Entry = mother high (long) or mother low (short).
- Stop = opposite mother-bar extreme.
- Take profit = entry ' - (risk \* risk\_reward\_ratio).
- ATR stored for downstream sizing; dashboard risk% sizing enforces equity cap.

### Implementation Notes:

- Strategy name: inside\_bar\_v1; default timezone Europe/Berlin.
- Required columns: timestamp, open, high, low, close, volume.
- Duplicate timestamps removed; data sorted before processing.
- Session filter handles overnight windows by wrapping hours.