I noticed that the bid-ask spread often widened beyond 0.5 units, creating potential for mean reversion-based trades. This observation led to a strategy focused on placing passive orders within wide spreads to benefit from natural price corrections.

**Core Logic**

* Calculate the **mid-price** as the average of best bid and best ask.
* Check if the **spread** exceeds a threshold (0.5).
* If so, place:  
  + A **buy** order below mid-price
  + A **sell** order above mid-price
* Adjust order quantities to stay within position limits and avoid excessive exposure.

#### **Experiments & Insights**

* Tested different spread thresholds; 0.5 offered a balance between execution frequency and profit margin.
* Larger thresholds led to fewer trades but higher individual profitability.
* Observed that the strategy performs better in volatile or less liquid segments where spreads widen more frequently.
* Limiting position size helped manage risk and avoid overtrading in one direction.