

# Predictive Relationship: Aroon

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# 1 Trading Strategy Description

The Aroon indicator is a technical indicator that is used to identify trend changes in the price of an asset, as well as the strength of that trend. In essence, the indicator measures the time between highs and the time between lows over a time period. The idea is that strong up trends will regularly see new highs, and strong downtrends will regularly see new lows. The indicator signals when this is happening, and when it isn't. The indicator consists of the "Aroon up" line, which measures the strength of the uptrend, and the "Aroon down" line, which measures the strength of the downtrend.

### 2 How to Trade

In order to trade with the rules InferTrade provides, we calculate allocations for each day. We then allocate that fraction of our total portfolio value (cash and securities) to the market we are trading - to do this we buy or sell securities to reach the target allocation.

#### How Allocation Determines Trade Size

The allocation is the fractional amount of the portfolios value used to determine the size of the trading position. For example, if the allocation for Microsoft (MSFT) shares is 50%, and we have \$100, we invest \$50 so that the value of held stock is the same as the value of held cash.

#### Rule Specific Trading Details

The strategy is to identify trend shifts or reversals. Bullish Reversal - when Aroon up crossover above the Aroon down. Bearish Reversal - when Aroon up crossover below the Aroon down.

### 3 Rule Parameters

Below is a table summarizing the parameters specific to this trading rule.

Parameter Name	Default Value	Description	Symbol
High Periods	25	Periods Since $n$ period High	$P_h$
Low Periods	25	Periods Since $n$ period Low	$P_l$

# 4 Equation

Below are the equations which govern how this specific trading rule calculates a trading position.

$$A_u = \frac{25 - P_h}{25} \times 100 \tag{1}$$

$$A_d = \frac{25 - P_l}{25} \times 100 \tag{2}$$

with:

 $A_u$ : is the AROON Up.  $A_d$ : is the AROON Down.

 $P_h$ : Periods Since 25 period High.  $P_u$ : Periods Since 25 period Low.

# 5 Glossary

- Bullish: Positive outlook on the market. Expectation of positive returns.
- Bearish: Negative outlook on the market. Expectation of negative returns.
- **Allocation:** The allocation is the fractional amount of the portfolios value used to determine the size of the trading position.
- Parameter: Value used by the trading rule in the calculation for trading position
- Trading Rule: Strategy to determine when to buy, hold or sell a position.

## **Further Links**

- 1. InferTrade: https://www.infertrade.com
- 2. Privacy Policy/Legal notice: https://www.infertrade.com/privacy-policy
- 3. InferStat Ltd: https://www.inferstat.com