

Trend Following Strategy with Moving Averages

```
//@version=5

strategy("Trend Following with Moving Averages", overlay=true)

// Moving Average Settings
shortSMA_length = 50
longSMA_length = 200

// Calculate Moving Averages
shortSMA = ta.sma(close, shortSMA_length)
longSMA = ta.sma(close, longSMA_length)

// Entry Conditions
longEntry = crossover(shortSMA, longSMA)
shortEntry = crossunder(shortSMA, longSMA)

// Exit Conditions (using trailing stop loss and trend reversal)
longExit = close < strategy.position_avg_price * (1 - 0.05) or crossunder(shortSMA, longSMA)
shortExit = close > strategy.position_avg_price * (1 + 0.05) or crossover(shortSMA, longSMA)

// Entry and Exit Logic
if (longEntry)
    strategy.entry("Long", strategy.long)
if (shortEntry)
    strategy.entry("Short", strategy.short)

if (longExit)
    strategy.exit("Exit Long", from_entry="Long")
if (shortExit)
    strategy.exit("Exit Short", from_entry="Short")
```

```
// Plot Indicators
```

```
plot(shortSMA, color=color.blue, linewidth=2, title="Short SMA")
```

```
plot(longSMA, color=color.orange, linewidth=2, title="Long SMA")
```

```
// Plot Entry and Exit Signals
```

```
plotshape(longEntry, style=shape.triangleup, color=color.green, size=size.small)
```

```
plotshape(shortEntry, style=shape.triangledown, color=color.red, size=size.small)
```

```
plotshape(longExit, style=shape.triangleup, color=color.red, size=size.small)
```

```
plotshape(shortExit, style=shape.triangledown, color=color.green, size=size.small)
```

Entry Criteria:

Bullish Entry: Buy when the short-term SMA crosses above the long-term LMA, indicating a potential upward trend.

Bearish Entry: Sell (or short sell) when the short-term SMA crosses below the long-term LMA, indicating a potential downward trend.

Exit Criteria:

Trailing Stop Loss: Set a trailing stop loss based on a predetermined percentage below the current price for long positions, or above the current price for short positions. Adjust the stop loss as the price moves in your favor.

Trend Reversal: Exit a long position if the short-term SMA crosses below the long-term LMA. Exit a short position if the short-term SMA crosses above the long-term LMA. This ensures that you exit the trade as the trend potentially reverses.