

## Initial Filters

### \*\*\* Initial Check / Filter – Condition 1 \*\*\*

There should be only one buy or sell trade at any given time :

For each currency pair,

For each time frame,

For each algo strategy

....example....

( assume there are 2 algo strategies (1) moving average cross over strategy (2) Bollinger Band strategy )

So, for example,

If there is already buy trade going on for 15 min time frame for AUD/USD for moving average crossover strategy, another “buy” algo trade MUST NOT TRIGGER for the same time frame and same strategy ...but another buy algo...for 15 min can take place for the same AUD/USD pair ( or any other pair ) for any other strategy) and similarly another buy algo can take place for the same AUD/USD pair for the same strategy but for different time frame.

## Initial Filters

### \*\*\* Initial Check / Filter – Condition 2 \*\*\*

Buy or Sell Trade must not trigger when spreads are high...so create input variable & control for that.

For example ...

Symbol	Bid	Ask	Spread
AUDUSD	0.65290	0.65290	0
AUDUSD.a	0.65286	0.65294	8

So for example , in the case of AUDUSD pair, Buy or Sell Trade MUST NOT trigger if the spreads are more than 10 ( or whatever spread limit I decide in through INPUT variable control.

## Algo overall logic / concept

### Buy Trade :

Take a “Buy” trade when “Triple Exponential Moving Average” ( TEMA ) is rising.

### Sell Trade :

Take a “Sell” trade when “Triple Exponential Moving Average” ( TEMA ) is decreasing.

## Initial Calculation for TEMA



Thin blue line in this picture is TEMA

### Initial Calculations based on TEMA line

1. Find the difference between TEMA value at point “1” ( latest value - as in above picture ) & TEMA value at point “5” ..... So TEMA at [1] minus TEMA at [5]... save it under some variable ...for e.g. save it under variable **“TEMA\_Diff”**
2. Find the Average of TEMA values from point [1] to [10]... save it under some variable for e.g. save it under **“AvgLst10TEMA”**
3. Find the Average of TEMA values from point [1] to [5]...save it under some variable for e.g. save it under **“AvgLst5TEMA”**

## Other initial input variables

1.

Create Input variable for TEMA length ..for example.. I should be able to change length of TEMA like 5,13,48,96 etc.

2.

Create Input variable for “exponential moving average” (EMA) length....for example .. I should be able to change the length of EMA like 10,15,18,27,97 etc.

3.

- a. Create input variable for Stop Loss in percentage ( \$ values )
- b. Create input variable for Stop Loss in point ( pips )

4.

- a. Create input variable for Take Profit in percentage ( \$ values )
- b. Create input variable for Take Profit in point ( pips )

5.

Create input variable to save spread values

6.

Create input variable for TEMA diff multiplier ... call it **“TEMADiff\_Multiplier”** & set initial input value to 0.0015

# Use below logic to decide if “Triple Exponential Moving Average” ( TEMA ) is increasing or decreasing

## Logic / Calculations for “Sell” Trade

\*\*\*\*\* First .... Check that “initial filter condition 1 & 2 & if both the conditions suggest trade can be taken ....then and then only .... Move to below next stage.....

If,

Condition 1: **candle closing price is less than** : TEMA

\*\*\*\*\* AND \*\*\*\*\*

Condition 2: “TEMA\_Diff” is greater than negative (-) “TEMADiff\_Multiplier” ( multiplier input variable )

\*\*\*\*\* AND \*\*\*\*\*

Condition 3: **candle closing price is less than** : value stored in “AvgLst10TEMA”

\*\*\*\*\* AND \*\*\*\*\*

Condition 4: **candle closing price is less than** : value stored in “AvgLst5TEMA”

Then,

place “Sell” order

### Example Calculation for TEMA\_Diff, TEMA value at [1] (latest) – TEMA value at [5]

UNIX Time	Date Conv	Time Conv	Candle Close Value	TEMA Line value	TEMA Diff	AvgLst10TEMA	AvgLst5TEMA
1699394400	7/11/2023	22:00:00	0.6433	0.647900229	-0.001426	0.649075168	0.648510289
1699408800	8/11/2023	2:00:00	0.64308	0.647637891	-0.001179	0.648943737	0.648172571
1699423200	8/11/2023	6:00:00	0.64236	0.64730247	-0.001059	0.648724851	0.647869654
1699437600	8/11/2023	10:00:00	0.64266	0.647020217	-0.001126	0.64843818	0.647601452
1699452000	8/11/2023	14:00:00	0.64121	0.646581761	-0.001318	0.648088617	0.647288514
1699466400	8/11/2023	18:00:00	0.64029	0.646062461	-0.001575	0.647715624	0.64692096
1699480800	8/11/2023	22:00:00	0.64142	0.645710389	-0.001592	0.647354015	0.64653546
1699495200	9/11/2023	2:00:00	0.6409	0.645318902	-0.001701	0.6470042	0.646138746
1699509600	9/11/2023	6:00:00	0.64062	0.644919911	-0.001662	0.646660069	0.645718685
1699524000	9/11/2023	10:00:00	0.64125	0.644621525	-0.001441	0.646307576	0.645326638
1699538400	9/11/2023	14:00:00	0.64124	0.644340995	-0.001369	0.645951652	0.644982345
1699552800	9/11/2023	18:00:00	0.63665	0.643539089	-0.001780	0.645541772	0.644548085
1699567200	9/11/2023	22:00:00	0.63579	0.642696539	=([@[TEMA Line value]]-K601)		0.644023612

### Example Calculation for “AvgLst10TEMA” Average of last 10 TEMA values ( NOT candle values )

UNIX Time	Date Conv	Time Conv	Candle Close Value	TEMA Line value	TEMA Diff	AvgLst10TEMA	AvgLst5TEMA
1699394400	7/11/2023	22:00:00	0.6433	0.647900229	-0.001426	0.649075168	0.648510289
1699408800	8/11/2023	2:00:00	0.64308	0.647637891	-0.001179	0.648943737	0.648172571
1699423200	8/11/2023	6:00:00	0.64236	0.64730247	-0.001059	0.648724851	0.647869654
1699437600	8/11/2023	10:00:00	0.64266	0.647020217	-0.001126	0.64843818	0.647601452
1699452000	8/11/2023	14:00:00	0.64121	0.646581761	-0.001318	0.648088617	0.647288514
1699466400	8/11/2023	18:00:00	0.64029	0.646062461	-0.001575	0.647715624	0.64692096
1699480800	8/11/2023	22:00:00	0.64142	0.645710389	-0.001592	0.647354015	0.64653546
1699495200	9/11/2023	2:00:00	0.6409	0.645318902	-0.001701	0.6470042	0.646138746
1699509600	9/11/2023	6:00:00	0.64062	0.644919911	-0.001662	0.646660069	0.645718685
1699524000	9/11/2023	10:00:00	0.64125	0.644621525	-0.001441	0.646307576	0.645326638
1699538400	9/11/2023	14:00:00	0.64124	0.644340995	-0.001369	0.645951652	0.644982345
1699552800	9/11/2023	18:00:00	0.63665	0.643539089	-0.001780	0.645541772	0.644548085
1699567200	9/11/2023	22:00:00	0.63579	0.642696539	-0.002223	=AVERAGE(K596:K605)	

### Example Calculation for “AvgLst5TEMA” Average of last 5 TEMA values ( NOT candle values )

UNIX Time	Date Conv	Time Conv	Candle Close Value	TEMA Line value	TEMA Diff	AvgLst10TEMA	AvgLst5TEMA
1699394400	7/11/2023	22:00:00	0.6433	0.647900229	-0.001426	0.649075168	0.648510289
1699408800	8/11/2023	2:00:00	0.64308	0.647637891	-0.001179	0.648943737	0.648172571
1699423200	8/11/2023	6:00:00	0.64236	0.64730247	-0.001059	0.648724851	0.647869654
1699437600	8/11/2023	10:00:00	0.64266	0.647020217	-0.001126	0.64843818	0.647601452
1699452000	8/11/2023	14:00:00	0.64121	0.646581761	-0.001318	0.648088617	0.647288514
1699466400	8/11/2023	18:00:00	0.64029	0.646062461	-0.001575	0.647715624	0.64692096
1699480800	8/11/2023	22:00:00	0.64142	0.645710389	-0.001592	0.647354015	0.64653546
1699495200	9/11/2023	2:00:00	0.6409	0.645318902	-0.001701	0.6470042	0.646138746
1699509600	9/11/2023	6:00:00	0.64062	0.644919911	-0.001662	0.646660069	0.645718685
1699524000	9/11/2023	10:00:00	0.64125	0.644621525	-0.001441	0.646307576	0.645326638
1699538400	9/11/2023	14:00:00	0.64124	0.644340995	-0.001369	0.645951652	0.644982345
1699552800	9/11/2023	18:00:00	0.63665	0.643539089	-0.001780	0.645541772	0.644548085
1699567200	9/11/2023	22:00:00	0.63579	0.642696539	-0.002223	0.645081179	=AVERAGE(K601:K605)

## Example of "Sell" Trade Signal using below data

UNIX Time	Date Conv	Time Conv	Candle Close Value	TEMA Line value	TEMA Diff	AvgLst10TEMA	AvgLst5TEMA
1699437600	8/11/2023	10:00:00	0.64266	0.647020217	-0.001126	0.64843818	0.647601452
1699452000	8/11/2023	14:00:00	0.64121	0.646581761	-0.001318	0.648088617	0.647288514
1699466400	8/11/2023	18:00:00	0.64029	0.646062461	-0.001575	0.647715624	0.64692096
1699480800	8/11/2023	22:00:00	0.64142	0.645710389	-0.001592	0.647354015	0.64653546
1699495200	9/11/2023	2:00:00	0.6409	0.645318902	-0.001701	0.6470042	0.646138746
1699509600	9/11/2023	6:00:00	0.64062	0.644919911	-0.001662	0.646660069	0.645718685
1699524000	9/11/2023	10:00:00	0.64125	0.644621525	-0.001441	0.646307576	0.645326638
1699538400	9/11/2023	14:00:00	0.64124	0.644340995	-0.001369	0.645951652	0.644982345
1699552800	9/11/2023	18:00:00	0.63665	0.643539089	-0.001780	0.645541772	0.644548885
1699567200	9/11/2023	22:00:00	0.63579	0.642696539	-0.002223	0.645081179	0.644023612

Condition 1 : Candle Closing price is less than TEMA

Condition 2: "TEMA\_Diff" is greater than negative (-) "TEMA\_Diff\_Multiplier" : -0.00223 is greater than default -0.0015

Condition 3: candle closing price is less than : value stored in "AvgLst10TEMA"

Condition 4: candle closing price is less than : value stored in "AvgLst5TEMA"

\*\*\* AS all conditions are met, Expert Adviser should take sell trade subject to basic filters mentioned in earlier slides

# Use below logic to decide if “Triple Exponential Moving Average” ( TEMA ) is increasing or decreasing

## Logic / Calculations for “Buy” Trade

\*\*\*\*\* First .... Check that “initial filter condition 1 & 2 & if both the conditions suggest trade can be taken ....then and then only .... Move to below next stage.....

If,

Condition 1: **candle closing price is more than** : TEMA

\*\*\*\*\* AND \*\*\*\*\*

Condition 2: “TEMA\_Diff” is greater than positive (+) “TEMADiff\_Multiplier” ( multiplier input variable )

\*\*\*\*\* AND \*\*\*\*\*

Condition 3: **candle closing price is more than** : value stored in “AvgLst10TEMA”

\*\*\*\*\* AND \*\*\*\*\*

Condition 4: **candle closing price is more than** : value stored in “AvgLst5TEMA”

Then,

place “Buy” order

## Stop Loss Condition

Sometimes I want to use Stop Loss that is based on \$% and sometimes I want to use Stop Loss that is based on pips movement so please keep provision for that accordingly....

### Stop Loss Conditions :

(A) Stop Loss Based on \$% bases .....

If the from trade entry price, if the price goes against by 6% ( or whatever I select in input variable ) then exit trade.

(B) Stop Loss Based on pips .....

If the from trade entry point, if the price goes against by 200 pips ( or whatever I select in input variable ) then exit trade.

## Take Profit Condition

Sometimes I want to use Take Profit that is based on \$% and sometimes I want to use Take Profit that is based on pips movement so please keep provision for that accordingly....

### Take Profit Conditions :

(A) Take Profit Based on \$% bases .....

If the from trade entry price, if the price goes in my favour by 12% ( or whatever I select in input variable ) then exit trade.

(B) Take Profit Based on pips .....

If the from trade entry point, if the price goes in my favour by 400 pips ( or whatever I select in input variable ) then exit trade.