

TL - Grid Trading Expert Advisor

The EA works in CYCLES – a cycle starts when the first position is opened and it ends when all positions are closed because of stop loss, take profit, or target profit reached

Please use the same names of input variables as specified here. ALL ORDERS WILL BE PLACED WITH NO STOP LOSS

MQL CODE OF THE EA REQUESTED WITH FINAL REVISION.

NO	DEFAULT INPUT VARIABLES	DETAILS		NOTES
1	orderTypes=STOP_LIMIT_ORDERS	STOP_ORDERS – the EA will place only Buy Stop or Sell Stop orders in direction of the trend LIMIT_ORDERS – the EA will place only Buy Limit or Sell Limit orders in direction of the trend STOP_LIMIT_ORDERS – the EA will place BOTH Stop and Limit orders		
2	DELETED			
3	gridAutoRestart = true;	true – after completing the current cycle the EA will start a new cycle if conditions are present false – The EA will start and complete one cycle only. After completing the cycle and closing all positions the EA will NOT START a new cycle.		
4	orderComment = "GRID_TL";	The EA does not use magic number. It only uses Order Comment to distinguish from other trades.		
5	Increment= 5 ;	Increment is the spacing between the grid levels		
6	limitOrdersStep = 5;	Limit Order Step is the additional spacing between grid levels and it applies to LIMIT ORDERS ONLY	double newStep = LastBLStep + limitOrdersStep*pip*Point;	
7	GridOrderReplacement = true;	- true - when a Grid order has closed by reaching the TakeProfit (if takeProfitPips > 0) it will be replaced with a new order if the price returns to that same grid LEVEL within the same CYCLE. - false - each order within a CYCLE will only be activated once for any given grid level		
8	MaxOpenStopPositions=10;	Maximum Number of OPEN STOP POSITIONS		
9	MaxOpenLimitPositions=10;	Maximum Number of OPEN LIMIT POSITIONS		
10	lotSize=0.01	Initial Fixed Lot Size	if(lotSizeX > 0) LotSize = (AccountInfoDouble(ACCOUNT_EQUITY)/10000*lotSizeX); else LotSize = lotSize; if(LotSize < 0.01) LotSize = 0.01; else LotSize = ND2(LotSize);	
11	lotSizeX=0 ;	Lots Size Multiplier (expressed in %)		
12	lotIncreasePct=10.0	This is the lot size increase in percent for every new level. IT APPLIES TO LIMIT ORDERS ONLY. THE LOT SIZE FOR ALL STOP ORDERS IS ALWAYS THE SAME		
13	takeProfitPips=0	This is the take profit pips for each individual position		
14	applyLimitOrderStepToTP = true	If true – the same limitOrderStep, specified in item 6 is applied to the take profit	if(tpPips == 0) tp = 0; else tp=ND(price+tpPips*pip*Point+newStep);	
15	targetProfitPercent=0.00	When the total profit of the grid reaches the target profit, the EA will end the cycle, i.e. close all positions, delete all pending orders	targetProfit = (AccountInfoDouble(ACCOUNT_BALANCE)/100*targetProfitPercent);	
16	includeClosedTradesProfit=true	If = true – the profit from the already closed trades IN THE CURRENT CYCLE is included in the calculation of the total profit of the grid If= false - only the profit from the currently open opens positions in the current cycle is considered		
22	maPeriod=144 ;	MA period		If(Close[1] > ma && Close[2] < ma
24	maType = MODE SMA;	Moving average Type		

HOW IT WORKS

ASSUMPTIONS:

- orderTypes = STOP_LIMIT_ORDERS
- increment = 10
- limitOrderStep = 5
- takeProfit = 20;
- trend = DOWN
- applyLimitOrdersStepToTP = true

The trigger to activate the grid is the price crossing the moving average:

- for LONG - price crossing above the moving average ($\text{Close}[1] > \text{ma} \ \&\& \ \text{Close}[2] < \text{ma}$)
- for SHORT - price crossing below moving average ($\text{Close}[1] < \text{ma} \ \&\& \ \text{Close}[2] > \text{ma}$)

A new grid will start ONLY on price crossing the moving average.

The EA will complete the current cycle by placing orders in the same direction as of the time of trigger, even if the price has reversed and closed on the other side of the moving average.

If the current cycle has completed and all positions are closed, the EA will wait for the next cross of the moving average to start a new grid



FIG.1

If a new grid cycle is triggered:

the EA will draw a Horizontal Line at the $(\text{Ask} + \text{Bid})/2$ and name it zeroLine.

- The EA will place a sell stop order at Sell Stop1 level at a distance of 10 pips from zeroLine
- The EA will place a sell limit order at Sell Limit1 level at a distance of 10 pips from zeroLine

If Sell Stop1 level is filled, the EA will place a Sell Stop order at Sell Stop2 level at a distance of 10 pips from SellStopLevel 1

If Sell Stop2 level is filled, the EA will place a Sell Stop Order at Sell Stop3 level, etc.

The spacing between all Stop Levels is always the same = Increment

If Sell Limit1 level is filled, the EA will place a Sell Limit Order at Sell Limit2 level, at a distance of $\text{Increment} + \text{limitOrderStep} = 15$ Pips from Sell Limit1.

If Sell Limit2 level is filled, the EA will place a Sell Limit Order at Sell Limit3 level at a distance of $\text{Increment} + 2 \times \text{limitOrderStep} = 20$ Pips from Sell Limit2

limitOrderStep will increase with one limitOrderStep on every new grid level.

- for SellLimitLevel 1 - limitOrderStep = 0
- for SellLimitLevel 2 - limitOrderStep = 5
- for SellLimitLevel 3 - limitOrderStep = 10
- for SellLimitLevel 4 - limitOrderStep = 15, etc.