**TurboRenkoEA for Metatrader 4 Specification**

**Simple Overview:**

* The TurboRenkoEA is to auto-trade on an offline Turbo Renko chart using Semafors to determine entry and exit points
* When a 3rd level Semafor is posted at the close of a Renko brick, monitor the following brick. If the following brick turns in the opposite direction and the 3rd level Semafor (yellow) is left on the previous brick, place an entry in the direction of the new trend following the close of the brick after the Semafor is posted
* Exit the trade when an opposing 2nd (purple) or 3rd (yellow) Semafor is formed and the brick AFTER it's formed on closes against the trend

**Profit and Loss rules:**

* If a brick closes against the trend and leaves the trade in loss, close the trade regardless of semafor if there is a brick closes against the trend with any loss
* Equally close the trade if there is profit up to 40pips in the above situation. If the profit is between 40 and 80pips, move the stop loss to 40pips – also move the stop loss to 40pips if the profit goes below 80.
* The trade should be allowed to run until the 2nd or 3rd Semafor if the profit recorded is over 40pips
* A “Disaster” Stop Loss should be set at 200pips (this should never be hit unless there is an issue with the internet connection/software/broker)

**Other Requirements:**

* The EA will have specific times of when it can trade – there will be three different settings for when it can do this which are detailed in the Variables section
* The EA should not immediately trade when turned on – it should wait for the next 3rd level Semafor
* The EA should be compatible on both a local machine and a VPS
* There should be a Kill Switch which can be activated remotely from a phone or by e-mail to stop the EA from trading entirely (and can then only be restarted by manual input at the computer/VPS) (not sure how this should be done or if this is possible)
* There should be a setting that automatically stops trading after a maximum pip loss in a row (again, the EA can then only be restarted by manual input at the computer/VPS) (said pip loss would reset following a profitable trade)
* An e-mail should be sent every time a trade is opened or closed with confirmed profit and a confirmation of the next action (e.g. Trade start and finish times, +/- pips, P/L, whether next action is next trade already opened, EA has increased or decreased lot value etc)
* There must be an option to add a Semi or Full Martingale strategy (this would be turned off by default)

**Special Rules:**

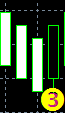
* Although the offline chart will be a Turbo Renko set to either 8, 18, or 20 pips per brick, the EA should be able to work on any offline Renko chart following the above rules
* The EA must be documented and upgradable (for instance if further conditions for entering a trade were to be added later, such as an MA cross)

**Indicators in use:**

* MedianRenkoChart\_b574 – applied to a live chart to create an offline chart (this is a paid indicator and available as a free trial – available from https://www.az-invest.eu/median-renko-plug-in-for-metatrader-4)
  + Settings
    - Candle Body Size in pips for FX: 7 (or 18 or 20)
    - Retracement Factor: 0.25
    - Symmetrical reversals: true
    - Show wicks: true
    - All other settings default
* 3\_Level\_ZZ\_Semafor – applied to the offline chart (available from https://www.mql5.com/en/code/7730)
  + Settings: defaults

**Step-By-Step Operation – Opening a Trade:**

1. The EA should wait for a 3rd level Semafor (yellow) to appear. This can either appear during the current trend, or on a brick that reverses the trend (example below):



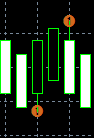
1. The Semafor will repaint on the next brick if the brick goes lower or higher (depending on its position) than the painted Semafor.
2. If it does NOT repeat the chart should look something like this once the next brick has closed (example below):



1. At the close of that second brick that has reversed the trend, place an order. In the example above, the order would be ***LONG*** as we are now looking at an uptrend. If the example was reversed and the bricks were closing lower, the order would be ***SHORT***.

**Step-by-Step Operation – Closing a Trade in Profit:**

1. All things being well, the trade should gain multiple bars before a reversal.
2. When the EA encounters bars that post 1st level Semafors (brown), it should ignore these and leave the position open (example below):



1. When a bar paints a 2nd level Semafor (purple), it means the trade is coming to an end.
2. When the trend has reversed, close the trade when the brick where the Semafor has painted closes (example below):



1. A 3rd level Semafor may form before the 2nd level Semafor does or during it. If so, follow the same rules for the 2nd Semafor. Any open trade should close following these rules against the 2nd or 3rd Semafors.

**Step-by-Step Operation – Closing Trade early for Loss/Break Even**

1. If the trend turns and a brick closes in the opposite direction before any Semafor is posted, the EA should check to see the current p/l for the trade.
2. If the trade is in loss, close the trade immediately and wait for the next 3 to form before entering a new trade
3. If the trade is in profit but under 40pts, close the trade immediately
4. If the trade is in profit but under 80pts, move the stop loss to break even
5. Should the profit be above 80pts but following a turn decreases below 80pts, move the stop loss to 40pts

**EA Variables:**

*Lots staked (default 0.1)* – The lots that are staked on each position

*Martingale Level (default 1)* – the multiplication amount the stake should increase by following a loss. 1 means it will never increase (lots 0.1 x 1 = 0.1), whereas 1.5 would increase it be a factor of 1.5 each time (lots 0.1 x 1.5 = 0.15, lots 0.15 x 1.5 = 0.225 and so on)

*Maximum martingale (default 0)* – the number of times the martingale level will increase after losses. When it reaches the maximum level it will stay there until the next win, and then reset back to the original lots staked variable.

*Restrict Trading (default 0)* – If this is set to 0, the EA will only trade between 8am on Monday and 8pm on Friday night, will not open any trades after 3pm on Friday, and will exit any active trade at 7:59pm on Friday (according to the market server). If this is set to 1, it will change these restrictions to between 12am on Monday and 10pm on Friday, will not open any trades after 7pm on Friday, and will exit any active trade at 9:59pm on Friday (according to the market server). If this is set to 2, it will ignore all restrictions and trade 24/7.

*No Semafor Countertrend Options (the next 3 options are all options relating to a change of trend without a semafor and are all interlinked – see Step by Step Operation – Closing Trade early for loss/break even)*

Low Profit or Loss Close Pip Value (default 40): If the trend changes without painting a 2nd or 3rd Semafor, this will close the trade at the end of the candle if the profit is below the amount of Pips in this setting. If this is set to 0, this will deactivate this setting.

Move Stop Loss to BE Pip Value (default 80): If the trend changes without painting a 2nd or 3rd level Semafor, this will move the stop loss to break even at the end of the candle if the profit is between the Low Profit or Loss Close Pip Value and this value. It will still automatically take profit according to the Low Profit or Loss Close Pip Value setting should the profit for the trade dip to that value. If this is set to 0, this will turn the setting off entirely.

Take Profit Reversal Pip Value (default 40): If the trend changes without painting a 2nd or 3rd Semafor, this will move the stop loss to the quoted profitable value at the end of the candle if the pip value falls to the Move Stop Loss to BE Pip Value. If this is set to 0, this will turn the setting off entirely.

*Take Profit (default 0)* – number of pips take profit should be set to. Setting to 0 sets up no take profit

*Disaster Stop Loss (default 200)* – number of pips stop loss should be set to. Setting to 0 sets up no stop loss

*Maximum pip loss (default 500)* – number of pips that can be lost in total before the EA will automatically stop trading (cannot be restarted without user intervention). Setting to 0 will deactivate this setting.

Ownership:

* The EA must be documented and modifiable for later versions
* The EA and concept would be my property and you would not be allowed to recreate it, although you would have the freedom to use the code base to create other EAs and products