MQL5 EA DEVELOPMENT PROJECT

Project Details	
Client:	Cornelius
Project Title:	Golf EA
Developer:	
Project Start Date:	2022-05-xx
Project End Date:	2022-05-xx
Agreed Upon Budget:	Xxx
Language	MT5 / MQL5
Compatible Pairs / Indices	All – the EA should be useable on any chart and pair.
Deliverables	• Functioning EA in MT5. • Uncompiled MT5 code (must compile without errors). • Compiled EA must be able to be uploaded to the MQL5 marketplace – an indication of robust and clean coding. • A backtest report from 2008 – 2021, using the default settings • If the basic settings are too unstable or unprofitable, an optimization from 2008-2014 and walk forward test.
Reference Documents	• n/a

I would like to develop a simple MA crossover EA for use on higher timeframes (H1+).

The standard MA cross EA generates a signal from the upward or downward cross of two MAs, for example 21 & 50 (a faster and slower).

In this EA however we will also include a third EA for a higher level trend (control) filter. It is not used on the generation of cross signals, but instead is used to gauge whether we accept buy or sell signals. We will only accept buy signals when above the control filter, and will only accept sell signals when below it.

There are therefore three MAs:

1) Fast (default 21)
2) Slow (default 50)
3) Control (default 200)

Positions will be closed by one of the following conditions:

1) by TP
2) by SL
3) by TS
4) by a break in trend (see below)

For the purpose of this EA, a break in trend is defined as follows:

1) in the case of an open BUY position, a break in trend occurs at the close of the first candle which has both its open and close below the slow MA (for example the 50).

2) In the case of an open SELL position, a break in trend occurs at the close of the first candle which has both its open and close above the slow MA (for example the 50).

Here an example showing the opening of a sell, plus a break of trend to close the position:

Note that on the right side of the image above the 21 MA crosses up over the 50 MA. However since we are below the Control MA we are only looking for sells and this is ignored.

Position Opening Logic

The developer is free use the logic they prefer, so long as the end result is the same.

While ABOVE control MA

1. On bar open (bar 0):
   - If on the previous bar (bar -1) Fast MA > Slow MA, AND
   - On the bar before that (bar -2) Fast MA <= Slow MA
   - Open long

While BELOW control MA

2. On bar open (bar 0):
   - If on the previous bar (bar -1) Fast MA < Slow MA, AND
   - On the bar before that (bar -2) Fast MA >= Slow MA
   - Open short

Position Closing Levels

1. When TP hit
2. When SL hit
3. If TS is hit. Note that the TS does not begin until the price has moved (Delayed trailing start) points away from the open point. If (Delayed trailing start) is set to 0, then standard trailing stop rules apply: the TS is activated as soon as it is valid.
4. Break in trend (defined above)

Additional Features

- A setting to limit trading time by day and by hour
- Money management: lots per 10k balance, or fixed lots
- The developer is free to suggest additional capabilities that they think could be helpful to ensure a higher win rate, such as a news filter, RSI divergence filter, etc.

Required Variables

- Money Management
  - MM TRUE / FALSE (default TRUE; FALSE means fixed lots)
  - Lots / 10k Balance (default 0.1)
- MAs
  - Fast (default 21)
  - Slow (default 50)
  - Control (default 200)
  - MA type (default simple)
- TP
  - TRUE / FALSE (default TRUE)
  - Take profit level (default 500 points)
- SL
  - TRUE / FALSE (default TRUE)
  - Stop level (default 250 points)
- TS
  - Whether on / off (default TRUE, on)
  - Trailing value (default 100 points)
  - Delayed trailing start (default 250 points)
  - Trailing step (default 5 points)

Deliverables

Conclusion of the project will be measured according to the following:

1) Functioning EA in MT5.
2) Uncompiled MT5 code (must compile without errors).
3) Compiled EA must be able to be uploaded to the MQL5 marketplace – an indication of robust and clean coding.
4) A backtest report from 2008 – 2021, using the default settings. The report will include:
   - Backtest graphs.
   - Backtest data results.
   - If the basic settings are unprofitable, an optimization from 2008.01.01 – 2022.05.01 will be done and the results provided in excel format.

Depending on the results of this first project, the developer may be retained for additional modifications or conversion to MT4.