Handout: Installation and Setup Guide for the LSTM Trading System

**Objective**

This guide will walk you through the complete installation of the LSTM Expert Advisor, its Python backend, and the automated retraining scripts. By the end, you will have a fully functional, Machine learning AI trading system.

This ea is for the EUR/USD 1 H chart only

Even if you don’t use the algo trading with this ea. I believe its 24 bar prediction can really help someone manualy trading compared to just about every lagging indicator out there.

To use the strategy tester you need to train the model on the strategy tester first because a daemon cannot keep up with the speed of the strategy tester. Please see the initial training section.

I would appreciate anyone who uses this if they take the time to get the settings dialed in to send me the set file they are using. Thanks jason.w.rusk@gmail.ccom

**Part 1: Prerequisites**

Before you begin, ensure you have the following installed on your Windows machine:

1. **MetaTrader 5 (MT5):** The trading terminal from your broker.
2. **Python:** A recent version of Python (e.g., Python 3.10 or newer). During installation, make sure to check the box that says **"Add Python to PATH"**.
3. **Required Python Libraries:** Open a Command Prompt (cmd.exe) and install the necessary libraries by running these commands one by one:

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pip install torch

pip install pandas

pip install scikit-learn

pip install joblib

pip install pykalman

**Part 2: File Placement (The Most Critical Step)**

Correct file placement is essential. We will place all files within the MetaTrader 5 Data Folder.

**Step A: Find Your MT5 Data Folder**

1. Open your MT5 terminal.
2. Click on **File** in the top menu.
3. Click on **Open Data Folder**.
4. An Explorer window will open. This is your unique MT5 Data Folder. Keep this window open. The path will look something like: C:\Users\YourName\AppData\Roaming\MetaQuotes\Terminal\Some\_Long\_Hash\_String\

**Step B: Place the Files**

You will have a total of **8 primary files** for this project. Here is where each one must go inside the Data Folder you just opened.

1. **Navigate to the MQL5 subfolder.** This is your main working area.
2. **The Expert Advisor File:**
   * Go into the **Experts** folder.
   * Save the EA file here:
     + Siobahn1-1.mq5
3. **The MQL5 Script for Data Export:**
   * Go back to the MQL5 folder, then go into the **Scripts** folder.
   * Save the export script here:
     + ExportHistory.mq5
4. **The Main Python Project Folder:**
   * Go back to the MQL5 folder, then go into the **Files** folder. This is where MT5 allows external programs to read and write data.
   * Inside Files, create a new folder named **LSTM\_Trading**.
   * Save the following  **Python-related files** directly inside this LSTM\_Trading folder:
     + daemon.py
     + generate.backtest.data.py
     + train\_LSTM.py
     + train\_regression.py
     + retrain\_manager.py
     + data.procesing.py
     + All 7 of your initial data .csv files (e.g., EURUSD60.csv, EURJPY60.csv, etc.).

Inside the LSTM\_Trading folder create a folder named **models** and another named **data**

**Final Folder Structure Checklist:**

Your structure inside the MQL5 folder should look exactly like this:

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MQL5/

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├── Experts/

│ └── Siobhan1-1.mq5

│

├── Files/

│ └── LSTM\_Trading/

│ │ ├── daemon.py

│ │ ├── retrain\_manager.py

│ │ ├── train\_LSTM.py

│ │ ├── train\_regression.py

│ │ ├── generate\_backtest.data.py

│ │ ├── EURJPY60.csv

│ │ └── ... (and 5 other .csv files)

│ └── Models/

│ └── Data/

└── Scripts/

└── ExportHistory.mq5

**Part 3: Initial Setup and Compilation**

1. **Compile the MQL5 Files:**
   * Open **MetaEditor** from your MT5 terminal (or by pressing F4).
   * In the "Navigator" pane on the left, expand Experts and double-click Siobhan.mq5 to open it. Click the **Compile** button.
   * Expand Scripts and double-click ExportHistory.mq5 to open it. Click **Compile**.
   * If there are no errors, you can close MetaEditor.
2. **Run the Initial Training:**
   * Before you can run the EA, the AI models must be trained for the first time. If it cant find your python.exe you may need to edit the path to where you have yours installed on your computer.
   * Open the command prompt with Administrator privileges
   * In the cmd prompt navigate to your folder LSTM\_trading it will be something like this cd Users\*username*\AppData\Roaming\MetaQuotes\Terminal\*Long-string-of-numbers-and-letters*\MQL5\Files\LSTM\_Trading
   * In the command window type python train\_LSTM.py
   * When it finishes type python train\_regression.py
   * When they have both finished
   * Then run from cmd “python generate\_backtest.data.py EURUSD”
   * **IMPORTANT** it will create a file called “backtest\_predictions.csv” you must manually move this file into the C:\Users\xxxxxxx\AppData\Roaming\MetaQuotes\Terminal\Common\Files (this will allow you to use the strategy tester with this EA).
   * Return to the cmd and type python daemon.py daemon
   * Now open your metatrader 5 and add the Siobhan1-1 expert advisor to the EUR/USD 1h chart
3. **Running the Expert Advisor**
   * Open a EUR/USD H1 Chart: In your MT5 terminal, open a chart for EUR/USD and set the timeframe to H1 (1 Hour). This EA is specifically designed for this pair and timeframe.
   * Attach the EA: In the "Navigator" pane, find Siobhan1-1 under the "Expert Advisors" section. Drag it onto your EUR/USD chart.
   * Configure Settings:
   * The settings window will appear. Go to the "Common" tab and make sure "Allow Algo Trading" is checked.
   * Go to the "Inputs" tab to configure your desired trading parameters (Risk, SL/TP modes, etc.).
   * Click OK.
   * Enable Algo Trading: Ensure the main "Algo Trading" button in the MT5 toolbar is green and enabled.
   * You should now see the "--- LSTM Price Prediction ---" display in the top-left corner of your chart. The system is now fully operational.
   * Restart the daemon and retrain the models every week, ensuring it adapts to changing market conditions.

**Part 4: Running the Expert Advisor**

1. **Open a EUR/USD H1 Chart:** In your MT5 terminal, open a chart for EUR/USD and set the timeframe to H1 (1 Hour). This EA is specifically designed for this pair and timeframe.
2. **Attach the EA:** In the "Navigator" pane, find Siobhan under the "Expert Advisors" section. Drag it onto your EUR/USD chart.
3. **Configure Settings:**
   * The settings window will appear. Go to the **"Common"** tab and make sure **"Allow Algo Trading"** is checked.
   * Go to the **"Inputs"** tab to configure your desired trading parameters (Risk, SL/TP modes, etc.).
   * Click **OK**.
4. **Enable Algo Trading:** Ensure the main "Algo Trading" button in the MT5 toolbar is green and enabled.

You should now see the "--- LSTM Price Prediction ---" display in the top-left corner of your chart. The system is now fully operational. (predictions will begin in 24 hours)

I suggest weekly that you redownload the 1 h history in each of the csv files and run the retrain\_manager.py