How to Use MartialVision

Step 1: Set Up the Smart Gloves

1. **Wear the provided smart gloves.**
2. **Start Recording:**
   - **Press the A button (left-side button) on the left glove to begin capturing your movements.**
3. **Play the tutorial video of the martial arts move or technique you want to practice, and perform it while the gloves track your motions.**
4. **Stop Recording:**
   - **Press the B button (right-side button) on the left glove to end the recording.**

Step 2: Transfer Data to Your Computer

1. **Connect the Gloves:**
   - **Use a USB cable to link the gloves to your computer.**
2. **Download the Data Files:**
   - **Locate the file named MY_DATA.HTM on the glove's storage.**
   - **Open the file in your browser and save the corresponding CSV data to your computer.**
3. **Rename the Files:**
   - **Rename the left glove's CSV file as leftGlove.csv.**
   - **Rename the right glove's CSV file as rightGlove.csv.**
4. **Move the Files:**
   - **Place both renamed CSV files into the MartialVision program folder to prepare for analysis.**

Step 3: Use the Program

1. **Upload a Tutorial Video:**
   - **Select and upload the video of the martial arts move or technique you are learning.**
2. **Record Your Performance:**
   - **Perform the moves while wearing the gloves, which will capture your motion data.**
3. **Analyze Your Results:**

- MartialVision processes your glove data and compares it with the movements in the uploaded tutorial using computer vision.
- It calculates an average accuracy score based on your performance.

Step 4: Get Feedback and Improve

1. **Overall Accuracy Score:**
   - Receive a numerical average difference score that measures how closely your performance matches the tutorial.
2. **Detailed Performance Insights:**
   - The system provides feedback on areas needing improvement, such as precision, timing, or technique.
   - Visual feedback (e.g., charts or heatmaps) helps you focus on specific corrections for your next practice session.