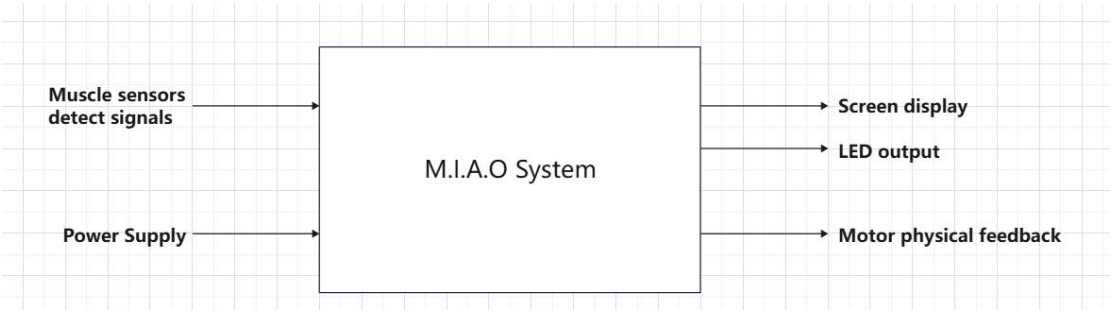
Level 0 block diagram:



Module	M.I.A.O system
Inputs	**Muscle sensors detect signals:** According to the user's current muscle status, the analog signal received by the sensor can be converted into a value using the ADC and added to the queue for analysis. **Power supply:** The power supply is a 9V voltage source. When the power supply is plugged in, the system starts to work.
Outputs	**Screen display:** Visualize the queue that stores sensor data. **LED output:** Lights up automatically when the algorithm determines that the user's muscles are tired. **Motor physical feedback:** When the algorithm judged the user's muscle fatigue, it began to give vibration feedback, with a period of three seconds, one second of vibration, and two seconds of pause.
Functionality	The sensor will store the muscle status in the form of data in the queue, and obtain the current user's muscle fatigue degree by analyzing the peak value and variance of the signal. If a certain limit is reached, the LED is lit to indicate and the motor gives vibration feedback.

Level 1 block diagram: