Example Test Case

Test Author: Tina, Leandro, Jason				
	Test Case Name:	Intelligent prosthesis	**Test ID #:**	Intelligent prosthesis-AT-01
	Description:	*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.*	**Type:**	White box black box _____ ___
Tester Information				
	Name of Tester:	Leandro Li; Tina Ma	**Date:**	4th Dec. 2024
	HW/SW Version:	Intelligent prosthesis 1.0	**Time:**	7:23 P.M.
	Setup:	The sensor is connected to the tester's arm. Tester should flex his/her arm for times. When the sensor output voltage value drops to the threshold, the lamp is steady on, and the motor vibrates. While the lcd shows the value of the voltage which is transformed by digital data of EMG intensity.		

STEP	**Action**	**Expected Result**	**PASS**	**FAIL**	**N/A**	**Comments**
1	LEDout high-level output	The led keep turning on	✓			
2	Myoware sensor working	Give out a high level when not stick on the surface, getting small when stick to exercising arm skin.	✓			
3	LCD screen	The lCD screen is turned on and can show some characteristics	✓			
4	Motor spinning	Motor can spin when there is a high-level input	✓			Sometimes the motor needs a force to help it begin to spin
	Overall test result: The function works great.					

Example Matrix Test (for varying parameters)

Test Author: Tina Ma				
	Test Case Name:	Intelligent prosthesis-Myoware Sensor-test #1	**Test ID #:**	Myoware Sensor_01_
	Description:	Check the range of input to ensure the MyoWare operates stably.	**Type:**	□ white box black box □ _____
Tester Information				
	Name of Tester:	Tina Ma	**Date:**	2024/12/4
	HW/SW Version:	1.0	**Time:**	12:37
	Setup:	The 2.27-5.47V input voltage will be given to the myoware sensor. And the output is connected to AO input. The output should between 0V-5V to communicate with the LCD12864.		

TEST	**INPUTS**	**EXPECTED OUTPUTS**	**PASS**	**FAIL**	**N/A**	**Comments**
1	2.4	0-5V	✔			4.55V
2	3.3	0-5V	✔			4.55V
3	4	0-5V	✔			4.55V
4	5	0-5V	✔			4.55V
5	5.4	0-5V	✔			4.55V

	Overall test result: The initial voltage is 4.55V, which is stable. When we add some force on the sensor , the value will be smaller, such as 0.11V.				