

Detailed Test Plans

12/3/2024

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Version 1.2

Test Author: Xiang Li						
	Test Case Name:	OLED Screen UI Testing			Test ID #:	Functional 1-5
	Description:	Based on the final hardware, test the software functions, including the menu, the main reaction test function and the expanded functions. Code is in Github/testcode/Testcode_1.3.ino			Type:	<input type="checkbox"/> white box <input type="checkbox"/> black box <input type="checkbox"/> _____
Tester Information						
	Name of Tester:	Xiang Li, Haoyang Han , Tony Tong			Date:	12/2/2024
	HW/SW Version:	BreadBoard Final Version 1.0			Time:	2 Hours
	Setup:	The completed circuit with 4 led, 4 buttons, OLED screen, Buzzer connected to the processor, proposing to test the UI shown by the screen and if it can output the correct result from software settings. The processor is connected to the computer for power and debugging.				
S T E P	Action	Expected Result	P A S S	F A I L	N / A	Comments
	1 Upload the code to XIAO ESP32C3	The Screen lights up and shows the welcome Screen.	√			The Welcome Screen can be more informative, more than “Welcome”
	2 Click any button to enter the Menu	The output on the Screen moved to MENU	√			
	3 Use two buttons as UP and Down	The “cursor “ of the menu should be controlled by the two buttons.	√			Later add the background highlight to make it more visible.
	4 Use Button to choose the desired function- Reaction test	The result go into the Reaction Game welcome page	√			
	5 Start the game by clicking button	Show the Count Down “3,2,1”	√			Later change the size of the numbers.

6	Push the corresponding button with the light LED	After pushing, the LED is off, and reaction time is recorded.	√			
7	After the number of cycles, show result	The average reaction time shown on Screen	√			Make the text size LARGER
8	Back to MENU, can choose function again	Show the Menu and can interact with it again.	√			
9						
	Overall test result: The Basic function is working as expected, the UI is informative and clear, and can work normally as expected.					

Test Author: Haoyang Han , Tony Tong						
	Test Case Name:	The Reaction Test and Memory game reaction	Test ID #:	Functional 1-2		
	Description:	The buttons and LEDs should perform differently on different modes. This is to test the action of LED ,buttons and results shown on the screen.	Type:	<input type="checkbox"/> white box <input type="checkbox"/> black box <input type="checkbox"/> _____		
Tester Information						
	Name of Tester:	Xiang Li, Haoyang Han , Tony Tong	Date:	12/3/2024		
	HW/SW Version:	BreadBoard Final Version 1.0	Time:	2 hours		
	Setup:	The completed circuit with 4 led, 4 buttons, OLED screen, Buzzer connected to the processor, proposing to test the UI shown by the screen and if it can output the correct result from software settings. The processor is connected to the computer for power and debugging.				
T	INPUTS	EXPECTED OUTPUTS	P	F	N	Comments

E S T			A S S	A I L	/ A	
1	In Reaction test, click the Button of the corresponding LED	One LED off, the other ON	√			Can have some future improvements
2	In Reaction test, click the different Button of the corresponding LED	LED still on, hold the state	√			
3	In the memory test, click the button in the right order shown before.	Pass this round, go into the next round.	√			
4	In the memory test, click the button in the different order shown before.	Shown "GAME OVER"	√			
	Overall test result: For Different inputs in different modes, it responds correctly.					