Test Author: Marisa Maiava						
	Test Case Name:	Test Case			**Test ID #:**	N/A
	Description:	*This test is going to be cycling through the different functionalities of the power supply, powering the LEDs and 7-Segment display.*			**Type:**	X white box □ black box □ _____
Tester Information						
	Name of Tester:	Marisa Maiava & Rhema Losli			**Date:**	12/01/2023
	HW/SW Version:	1.0			**Time:**	11AM to 5PM
	Setup:	*Populated PCB, digital Multimeter, DC power supply and a* collection of different resistors.				

STEP	**Action**	**Expected Result**	**PASS**	**FAIL**	**N/A**	**Comments**
1	Plug in 4.5V battery to barrel jack connector on board	Power runs from battery to circuit, outputting 4.5V at input port of voltage regulator	X			Changed our plan from a 9V battery to 3 AA batteries.
2	Voltage regulator gets powered on	Voltage regulator outputs 3.3V at output terminal on voltage regulator	X			Since doing the matrix test, we changed our original plan of using a 9V battery to 3 AA batteries and it works exactly how we need it to.
3	Flip rocker switch to turn on power	4.5V is delivered from the barrel jack to the voltage regulator	X			Good, it works.
4	ESP32 Featherboard is powered on	Microcontroller built-in indicator LED powered on	X			Good, it works.
5	ESP32 powers on green LED	Green LED turns on	X			Tested different values for LEDs to get consistent visuals of all three LEDs. Used 4.3k ohms.
6	ESP32 powers on red LED	Red LED turns on	X			Tested different values for LEDs to get consistent visuals of all three LEDs. Used 470 ohms.
7	ESP32 powers on blue LED	Blue LED turns on	X			Tested different values for LEDs to get consistent visuals of all three

						LEDs. Used 470 ohms.
8	ESP32 powers on buzzer	Buzzer emits sound	X			Nice and loud so it can comfortably be in the box.
9	Power runs to 7-Segment display with test program of “1,2,3,4” loaded on the ESP32	7-Segment display turns on displaying “1,2,3,4” sequence	X			Works well.
10	Play/pause button is pressed	Play/pause button passes 3.3V to the ESP32	X			Play/Pause functions as wanted.
11	Skip button is pressed	Skip button passes 3.3V to the ESP32			X	Works but not all the time, interrupt confuses the skip button function call with the play/pause function.
	Overall test result:		X			10/11 passed functionality tests.

Test Author: Marisa Maiava				
	Test Case Name:	Matrix Test	**Test ID #:**	N/A
	Description:	Testing different values for components in order to produce best functionality results to improve the model.	**Type:**	X white box □ black box □ _____
Tester Information				
	Name of Tester:	Joshua Varughese & Roy Coppernoll	**Date:**	12/01/2023
	HW/SW Version:	1.0	**Time:**	4PM to 7PM
	Setup:	Populated PCB, digital multimeter and DC power supply.		

TEST	**INPUTS**	**EXPECTED OUTPUTS**	**PASS**	**FAIL**	**N/A**	**Comments**
1	Power 9V battery into voltage regulator	Output of 3.3V at the output pin on voltage regulator		X		Mixing up with the voltage regulator chip caused the initial plan of the 9V battery to not work, going to do more tests.
2	Power 6V (4 AA batteries) into voltage regulator	Output of 3.3V at the output pin on voltage regulator		X		Voltage being supplied is still too high.
3	Power 4.5V (3 AA batteries) into voltage regulator	Output of 3.3V at the output pin on voltage regulator	X			Great, change 9V battery to 3 AA batteries for

						power supply of PCB.
	Overall test result:		**X**			Overall, this matrix test was a pass because we found the value necessary for our battery supply so that it provides the correct voltage for our voltage regulator to power the rest of our circuit.