

Signatures

You will be experimenting with various aspects of WICED Wi-Fi® by completing the exercises below. Labs are marked as “Basic” and “Advanced”. You should make sure you complete at least the basic exercises before moving on to the next section. Work on the advanced exercises as time allows.

Once you complete an exercise, demonstrate it to one of the instructors to get their signature on this page.

Initials	Chapter	Exercise	Category	Description
	N/A	N/A	Basic	Verify “CheckMySetup” installation
	01 (Survey)	01	Basic	Create a forum account
		02	Basic	Open the WICED documentation
	02 (Peripherals)	01	Basic	Install BCM943907AEVAL1F_WW101 platform files
		02	Basic	Blink an LED
		03	Basic	Add debug printing
		04	Basic	Read an input pin
		05	Basic	Use a pin interrupt
		06	Basic	Toggle I2C controlled LEDs
		07	Basic	Read analog co-processor sensor values over I2C
		08	Advanced	Probe the I2C bus for any attached devices
		09	Advanced	Adjust LED brightness
		10	Advanced	Write data using the standard UART functions
		11	Advanced	Read a value using the standard UART functions
	03 (RTOS)	01	Basic	Create an LED blink thread
		02	Basic	Use a semaphore
		03	Advanced	Use a MUTEX
		04	Advanced	Use a Queue
		05	Advanced	Use a Timer
		06	Advanced	Setup and Run the Debugger
	04 (Library)	01	Basic	Browse the library
		02	Basic	Review graphics library documentation and run examples
		03	Advanced	Display sensor information on the OLED display
	05 (Wi-Fi)	01	Basic	Attach to WPA2 PSK network
		02	Basic	Attach to an open network
		03	Basic	Print network information to a terminal
		04	Advanced	Switch between 2 networks within the application
	06 (Sockets / TLS)	01	Basic	Implement a client to write data to the server using TCP streams
		02	Basic	Modify the client to inspect return code from the server
		03	Advanced	Modify the client to use TCP packets
		04	Advanced	Implement the server for a single TCP connection
		05	Advanced	Implement the server to use TCP call back functions
		06	Advanced	Implement the server to support multiple connections
		07	Advanced	Modify the server and client to use TLS
	07b (Cloud / MQTT)	01	Basic	Provision a new <i>thing</i> in the AWS IOT cloud and test
		02	Basic	Build and test the publisher demo
		03	Basic	Explain the publisher demo firmware flow
		04	Basic	Build and test the subscriber demo
		05	Advanced	Implement the publisher and subscriber in 2 different kits and test
		06	Advanced	Build and test the shadow demo

