Electro4u

STM32 FreeRTOS Bootcamp LIVE Self-Paced Program : Learn Bare-Metal to RTOS with Projects

Category: **C Programming** Level: **All Levels** Language: **English**

Self-paced: **Rs. 499**

Curriculum (33 modules)

01	Module 01: STM32 FreeRTOS Project Setup & RTOS Fundamentals	Lesson
02	Module 02:- FreeRTOS toggling LED with single thread	Lesson
03	Module 03 : Multiple LED Blinking with Multiple Tasks in STM32 FreeRTOS	Lesson
04	Module 04 - FreeRTOS Preemption Explained with Practical Tests	Lesson
05	Module 03 Project :- Run 2 tasks simultaneously | Task 1: LED Blink Task 2: UART print (“Task Running”)	Lesson
06	Module 04: Creating new tasks in RTOS	Lesson
07	Module 04 Project: Create multiple tasks dynamically (LED1 blink LED2 blink at different frequency)	Lesson
08	Module 05: Using thread in Free RTOS	Lesson
09	Module 05 Project: Button-Controlled Task (LED ON/OFF)	Lesson
10	Module 06: Switching between task using priority	Lesson
11	Module 06 Project: High vs Low Priority Demo (Preemption)	Lesson
12	Module 07: Semaphores and its types	Lesson
13	Module 07 Project: Binary Semaphore using Button Interrupt	Lesson
14	Module 08: Priority inversion	Lesson
15	Module 08 Project: Priority Inversion Simulation (High, Medium, Low Tasks)	Lesson
16	Module 09 Project: UART Data Counter using Counting Semaphore	Lesson
17	Module 09: Counting semaphore	Lesson
18	Module 10: Free RTOS using queue	Lesson

19	Module 10 Project: Sensor Simulation using Queue	Lesson
20	Module 11: Structured Queue in FreeRTOS	Lesson
21	Module 11 Project: Send Structured Data using Queue (Temperature & Humidity)	Lesson
22	Module 12: Mutex in FreeRTOS	Lesson
23	Module 12 Project: Shared UART Resource using Mutex	Lesson
24	Module 13: Priority Inversion in Semaphore	Lesson
25	Module 13 Project: Semaphore Does NOT Fix Priority Inversion	Lesson
26	Module 14: Priority inheritance using mutex	Lesson
27	Module 14 Project: Fix Priority Inversion using Mutex (Priority Inheritance)	Lesson
28	Module 15: Software timers in free RTOS	Lesson
29	Module 15 Project: Periodic Task using Software Timer (LED Toggle)	Lesson
30	Module 16: Using FreeRTOS Functions (System Integration)	Lesson
31	Module 16 Project: Mini System Integration (Tasks + Queue + Semaphore + Timer)	Lesson
32	Module 17: Final Capstone Project – Smart Embedded System using FreeRTOS	Lesson
33	Module 05:- Thread Suspend, Resume & Terminate Explained	Lesson