

Graduation Project ADAS Map

Course : FWD Advanced Embedded System

Day	Arm	Rtos	Research
Mon 16/10	1-Introduction to ARM and Build Process	1-Introduction To Real-Time Operating Systems	<p>Component</p> <p>Lidar</p> <p>Ultrasonic</p> <p>IR sensor</p> <p>Rain Sensor</p> <p>Motion sensor</p> <p>And how to interface with Arm</p> <p>Adas Features</p> <p>1- Collesion Avoidence</p> <p>2- Lane keeping</p> <p>3- Lane change</p> <p>4- Adaptive Curse Control</p> <p>Wifi Module</p> <p>1. ESP8266</p> <p>2. Node-Red</p>
Tue 17/10	2-ARM Cortex-M Architecture 5-Preparing Development Environment	2-RTOS Terminologies and Building Blocks	
Wed 18/10	8-System Control and Clock 9-GPIO	3-Introduction to FreeRTOS	
Thurs 19/10	4-Drivers Development	4-Inter-Process Communication	
Fri 20/10	3-ARM Exceptions and Interrupts	5-Deep Dive into FreeRTOS	
Sat 21/ 10	6-Nested Vector Interrupts Controller (NVIC)	6-Designing a real-time system	
Sun 22/10	7-NVIC Simple Driver	7-Scheduling and Types of schedulers	
Mon 23/10	10-General Purpose Timer (GPT)	8-Schedulers In-Practice	
Tue 24/10	11-SysTick Timer	9-RTOS Run-Time Analysis	
Wed 25/10	13-Watch Dog Timer (WDT) 12-Using Hardware	10-RTOS main issues	
Thu 26/10	14-ADC	11-Porting FreeRTOS	