FreeRTOS - Tasks

Tasks are jobs will be done in an application. These special jobs are managed by scheduler with task's stack, priority.

Updated: 2021-08-04 17:31:07 #arm #stm32 #rtos

Raspberry Pi - Install Ubuntu

Official OS on Raspberry Pi is a Debian distro which is lightweight and more stable but slowly updated. Running Ubuntu on Raspberry Pi gives user a richer user experience and up-to-date software. Moreover, Ubuntu is the main OS that ROS natively supports.

Updated: 2021-08-04 17:31:07 #raspberry-pi #linux

Dual Boot with Ubuntu and Windows

Dual booting Linux with Windows is one of the most convenient way of enjoying the two operating systems on the same computer. You have both OS installed on the disk, on real hardware and when you power on your system, you can choose which operating...

Updated: 2021-08-04 17:31:07 #linux

FreeRTOS - Interrupt

FreeRTOS only handles 3 interrupts which are SVC, PendSV, and SysTick. All remaining interrupts are handled by application, and they are not blocked by tasks. However, there are some rules have to be followed in order to not mess up the task stacks...

Updated: 2021-08-04 17:31:07 #arm #stm32 #rtos #interrupt

FreeRTOS - Dynamic Memory Management

Creating RTOS objects dynamically has the benefit of greater simplicity, and the potential to minimize the application's maximum RAM usage. FreeRTOS offers several heap management schemes to manage memory allocation in different application types.

Updated: 2021-08-04 17:31:07 #arm #stm32 #rtos #memory

FreeRTOS - Overview

Using RTOS on MCU is method to deal with concurrent tasks which need to be handled in real-time without delay. A task is a piece of code that can be scheduled by OS scheduler and dedicated for a specific functionality. Tasks can have different...

Updated: 2021-08-04 17:31:07 #arm #stm32 #rtos

FreeRTOS - SysTick and Delay

SysTick is mainly used for delay function in non-RTOS firmware, and is used as the interrupt for RTOS scheduler. If STM32 HAL utilizes another timer as its time base, RTOS has its own right to initialize and handler SysTick. The Delay function also...

Updated: 2021-08-04 17:31:07 #arm #stm32 #rtos #systick

ROS

ROS is an open-source Operating System for Robot. ROS provides libraries and tools to help software developers create robot applications. It provides hardware abstraction, device drivers, libraries, visualizers, message-passing, package management, and more.

Updated: 2021-07-21 21:18:58 #ros

ROS - Quick Tutorial for Beginners

This guide is a short version of ROS Tutorial for Beginner which lists useful terms, packages, and commands for quickly understand about the basic of ROS.

Updated: 2021-08-04 17:31:07 #ros

Byobu - Multiple windows in Terminal

Byobu is a light, powerful, text-based window manager based on GNU Screen. Using Byobu, you can quickly create and move between different windows over a single SSH connection or TTY terminal, monitor dozens of important statistics about your system,...

Updated: 2021-08-04 17:31:07 #linux

Ubuntu - Tweaks for better performance

Ubuntu, by default, provides cool desktop environment with some default settings which may consume much resource in the system. Tips here are to speed up Ubuntu, and they are valid for most versions of Ubuntu and can also be applied in Linux Mint and...

Updated: 2021-08-04 17:31:07

#notes
#linux

Linux

Tips for using Linux

Updated: 2021-07-14 15:31:11

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