

**Record 1 of 1****Title:** Hard Real-Time Execution Environment Extension for FreeRTOS**Author(s):** Stangaciu, CS (Stangaciu, Cristina S.); Micea, MV (Micea, Mihai V.); Cretu, VI (Cretu, Vladimir I.)**Book Group Author(s):** IEEE**Source:** 2014 IEEE INTERNATIONAL SYMPOSIUM ON ROBOTIC AND SENSORS ENVIRONMENTS (ROSE 2014) **Published:** 2014**Times Cited in Web of Science Core Collection:** 0**Total Times Cited:** 0**Cited Reference Count:** 13

**Abstract:** In this paper, a hard real-time execution environment extension is proposed for an open source real-time operating system, FreeRTOS, in order to support a special case of hard real-time tasks, called ModXs. The goal is to obtain a real-time system which has both the capabilities offered by a dynamic, preemptive, priority based scheduling and execution environment and the determinism and predictability of a hard real time execution environment. This paper also presents an implementation of the system which was tested and validated on a hardware platform EFM32-G8900-STK.

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