

RT Processing

(A) PERIODIC

DEADLINE

Worst Case Execution Time (WCET)



Soft v.s. Hard

RTOS

~~Linux~~

~~Windows~~

~~VxTx (Vertex)~~

→ Anti-lock Brake

Why Not?

small # OPs not guaranteed to finish

- spinning disks

- arbitrary duration of system calls

scheduling (RTOS)

~~FIFO~~

~~RR~~

Preemptive Earliest Deadline First (EDF) is OPTIMAL

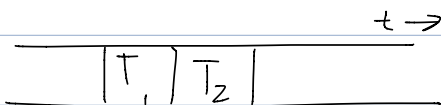
IF ANY SCHED OF TASKS COMPLETES ALL BEFORE DEADLINES, then P-EDF does
Proof by contradiction

Assume: there exists schedule S such that

(1) All deadlines are met

(2) S is not P-EDF

(3) P-EDF does not successfully schedule



$Dead(T_1) > Dead(T_2)$

switch ordering

A) show that T_1 does not

B) show that T_1 does

STORM

