Design of Embedded Systems (DES), Assignment 5

Richard Bisschops: s4448545 & Lisa Boonstra: s3018547

Ex05a

The task start and finish in the order of when they were started. No task is interrupted between starting and finishing.

Ex05b

The tasks switches continuously:

" Running Task : 0 at time : 10000000

Running Task : 1 at time : 10000000

Running Task : 2 at time : 10000000

Running Task : 0 at time : 20000000

Running Task : 1 at time : 20000000

Running Task : 2 at time : 20000000

Running Task : 0 at time : 30000000

Running Task : 1 at time : 30000000

Running Task : 2 at time : 30000000 "

This because when all the task have the same priority the round-robin tries to ensure that each of the task execution time is equally divided among tasks. Meaning that after task 0 has ran a part, then task 1 and 2 will execute a part before task 0 can execute again. This is what the rt_task_slice ensures; it gives a certain amount of time to each task in which it can run and then the other tasks are allowed to run.

Ex05c

The fourth task executes fully first. This because it has a higher priority than the other tasks. The round robin policy does only affect tasks that have the same priority. After the fourth task is executed, the other task will be executed in the order that was observed in ex05b.