What is a race condition?

The race between 2 running process which are running in parallel, could cause troubles with the program.

Disabling Interrupts

1. Because context switches!
2. It could be an infinite long interrupt, because the process could take over!

i.)

Peterson’s Solution

Process 0: wants to go into the critical region

Saves the other process in a variable, sets his self as interested, points his self as the “loser” but continues cause the other one isn’t interested yet

**Meanwhile…**

Process 1: wants to go into the critical region

Saves the other process in a variable, overrides “loser” and stops cause the other one is interested

Process 0: does his stuff

Leaves critical region and sets his self as not interested anymore

Process 1: sees that the other one isn’t interested anymore and can continue to the end now until it leaves the critical region

ii.)

strict alternation

Process 0:

iii.)

the last one becomes the loser cause he has to wait for the other process

iv.)

int loser;

int j = 0; //count variable for interested ones

void enter\_region(int process)

{

j++;

loser = process;

while (loser == process && j >= 1) ;

}