# Task

You need to write and run a program that measures a person's reaction time to a randomly appearing light signal. The program should be implemented using interrupts and should operate independently of the main program.

Task's criteria

- you must use two buttons

    - P4.0 (STOP) - pressed in response to the start signal of the measurement
    - P4.1 (INIT) - initiates the measurement sequence

- measurement accuracy: 0.01 seconds

- maximum measurement time: 1 second

- random wait time for the start signal between 1 and 6 seconds with a resolution of 0.01 seconds

- after pressing INIT, the displays turn off

- the start signal for the measurement is the display of the number '**00**'

- STOP stops the measurement

- the measurement result (**XX**) is displayed until INIT is pressed again

- button handling may (but does not have to) be implemented in the P1 interrupt[*]
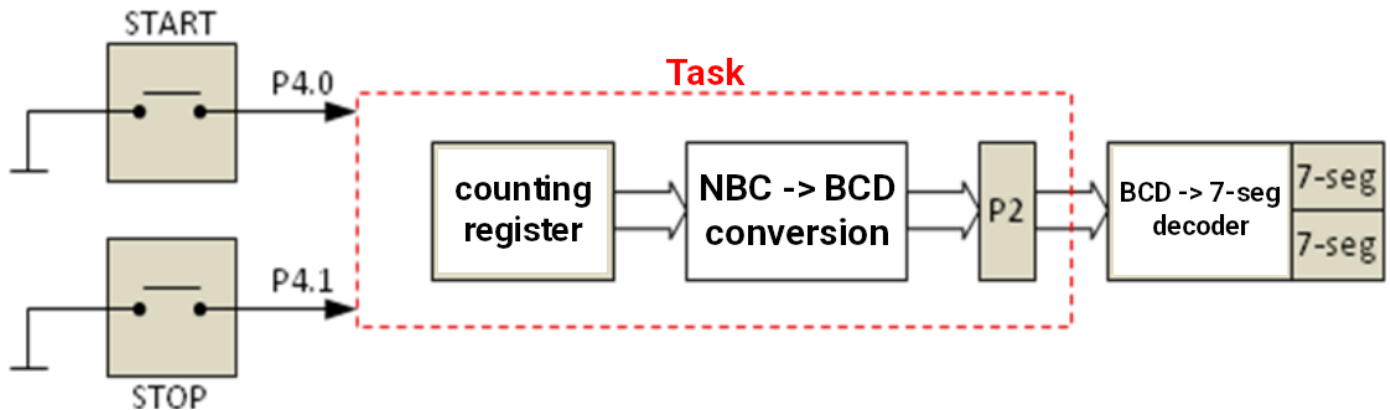
[*] *The connection diagram explaining the connection of buttons (P4) with port P1 is presented in the document "Blocks_scheme.pdf" (block 7).*