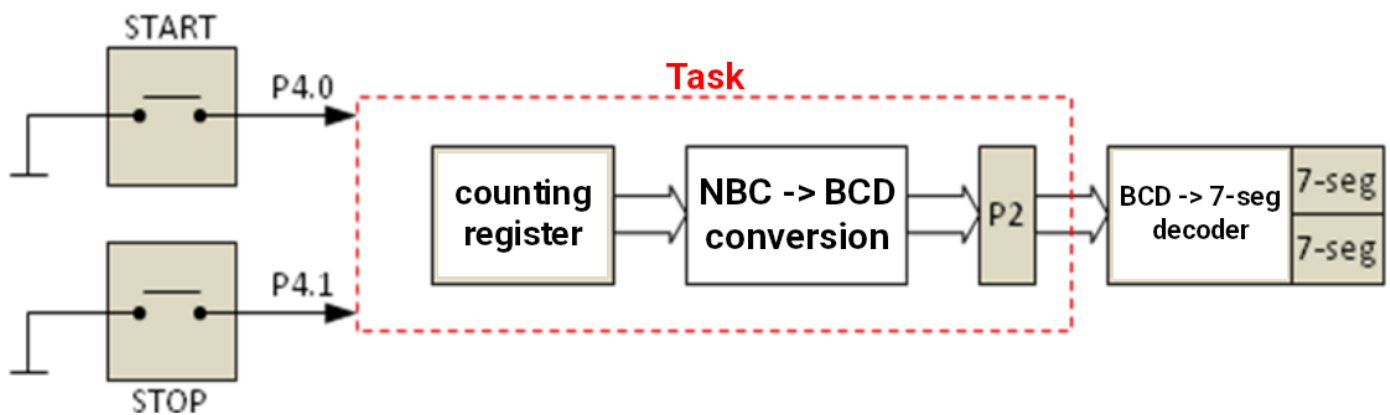


# Task

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<sup>\*)</sup>



<sup>\*)</sup> The connection diagram explaining the connection of buttons (P4) with port P1 is presented in the document "Blocks\_scheme.pdf" (block 7).