

## Exercise 1

### Implement a stopwatch (modulo 16) with the arty7 board

The Arty7 board has 4 LEDs that could be used as a display counter (0 -> 15 ) and at least three buttons that could be used with the following functions:

1. START
2. STOP
3. RESET

Implement a stopwatch able to display seconds ( 0-> 15) with 4 LEDs. The stopwatch responds to the commands ( START, STOP, RESET) that a user set by the pushbuttons.

### Useful links

1. Arty7 schematic [https://reference.digilentinc.com/\\_media/reference/programmable-logic/arty/arty\\_sch.pdf](https://reference.digilentinc.com/_media/reference/programmable-logic/arty/arty_sch.pdf)
2. Arty7 Master xdc (constraints) <https://github.com/Digilent/digilent-xdc/blob/master/Arty-A7-35-Master.xdc>

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