

StopWatch

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- It calculates the total 'On Time' of the system.
- It allows controller project to keep track of time even if it's reprogrammed or if power is lost.
- Perfect for data logging, clock-building, time stamping, timers and alarms.

How It Works

- Second, Minute and Hour are initialized to zero
- If clock frequency = 12 MHz, after 12×10^6 cycles, a second is updated
- Similarly, at end of 59th sec, a minute and end of 59th min, an hour is updated
- eg. if 32 sec is to be displayed,
Values are calculated as $(32/10) = 3$ and $(32 \bmod 10) = 2$
- If system is reset, timer starts from zero.
- Output is displayed on SSD