SYSPM – DeepSleep – Wake-up from MCWDT

- **Description**:
  - This example demonstrates how to enter DeepSleep mode and exit it through an MCWDT interrupt

- **Target Device**:
  - Traveo-II CYT2Bx devices

- **CPU Board**:
  - CYTVII-B-E-176-CPU BOARD REV.C (REV_C)

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- **Dependency:**
  - main_cm0plus.c and main_cm4.c need to be used because system DeepSleep mode is only entered when both cores enter sleep mode with SleepDeep bit set
  - Disconnect the debugger after programming otherwise system will not enter DeepSleep mode

- **Expectation**:
  - CM4 sets up all three sub counters of an MCWDT to generate an IRQ
    - subcounter #0: every 1s
    - subcounter #1: every 2s
    - subcounter #2: every 1s (when counter bit15 toggles → 2^{15} / 32 kHz)
  - Both cores will enter DeepSleep mode
  - On wake-up CM4 outputs information through 3 LEDs on the base board
  - Each LED is „assigned“ to one of the MCWDT subcounters
  - When the corresponding subcounter raised the interrupt the LED will be toggled
  - Then DeepSleep mode is entered again

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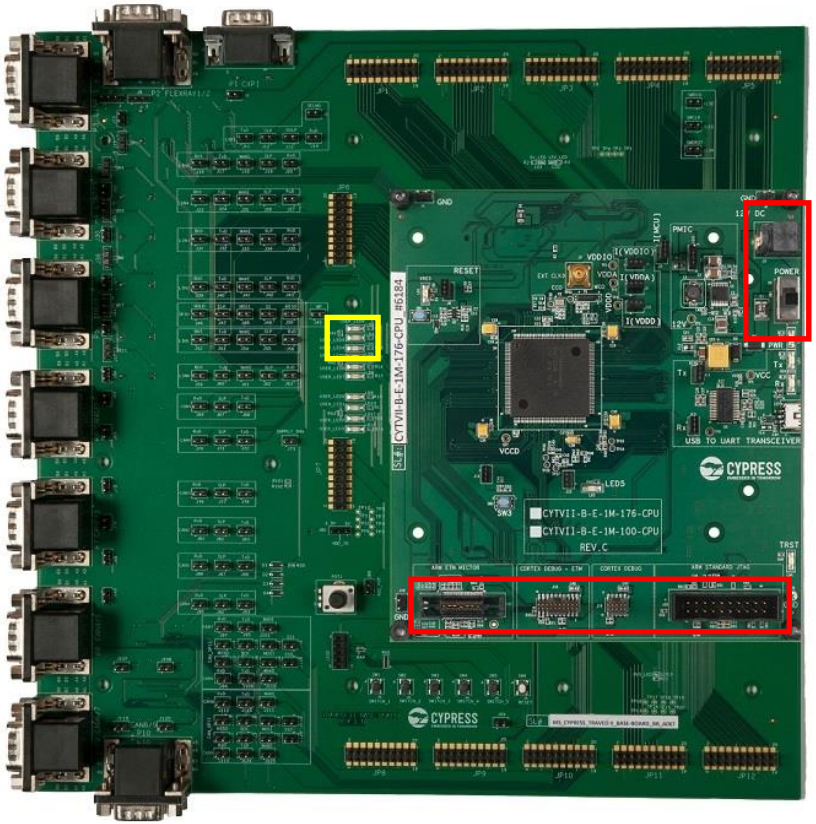

Legend:

- Red block for power and debug (Mandatory)
- Yellow block for the example specific connections