**PO3\_DGW\_DIGITAL\_WATCH**

**Software Requirement Specification**

|  |  |  |  |
| --- | --- | --- | --- |
| References | | | |
| Ref. Number | Doc. Name | Version | Status |
| 1 | PO3\_DGW\_CYRS | 0.6 | Released |
| 2 | PO3\_DGW\_HSI | 0.2 | Released |

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| --- | --- | --- | --- |
| **Table of History** | | | |
| **Version** | **Author** | **Date** | **Change** |
| 0.0 | Amr Ibrahim | 29/01/2020 | Initial Creation |
| 0.1 | Ghada Mohamed | 30/01/2020 | Updated Alarm Mode and Stopwatch Mode Requirements |
| 0.2 | Mariam El-Shakafi | 31/01/2020 | Fulfilled review points (1 to 3) |
| 0.3 | Amr Ibrahim | 12/01/2020 | New Creation |
| 0.4 | Ghada mohamed | 13/02/2020 | -Updated the stopwatch mode by adding some requirements.  -Editing some points in the description part.  - Editing the output signal |
| 0.5 | Amr Ibrahim | 19/02/2020 | Context Diagram |
| 0.6 | Mariam El-Shakafi | 20/02/2020 | -Updated all requirements to cover CYRS V0.4.  -Added mode navigation section with requirements (covering REQ\_PO3\_DGW\_CYRS\_01\_V02)  -Updated context diagram. |
| 0.7 | Ghada mohamed | 05/03/2020 | -some new atomic components  -updated the data and versions |
| 0.8 | Mariam El-Shakafi | 06/03/2020 | Updated Alarm Mode requirements to comply with CYRS V0.6 |

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# 

# **1 Introduction**

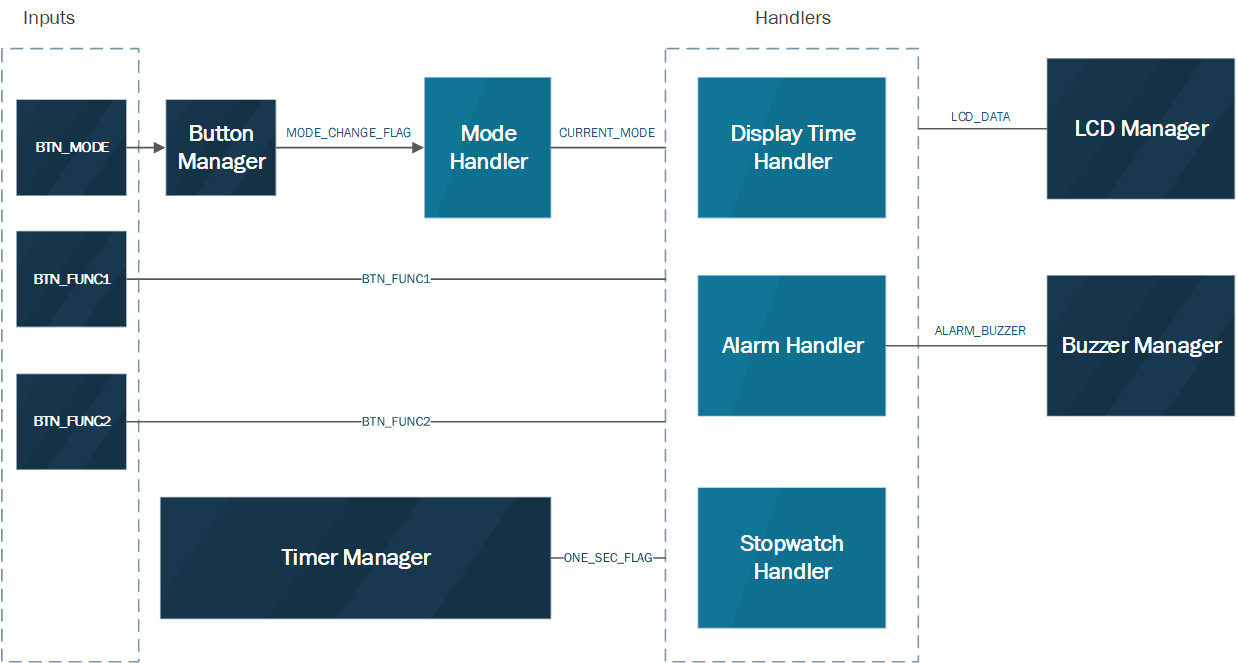
This section introduces the software requirements specification (SRS) for the Digital Watch.

## **1.1 Software Features**

The major feature of the digital watch as listed below.

* Display time with 12 AM/PM format.
* Adjust time.
* Alarm to set according to user input.
* Stopwatch (Start, Stop).
* Three buttons to control the system:
  + MODE
  + FUNC1
  + FUNC2

# **2 Context Diagram**



3 System Features:

## **3.1 Function requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **Req\_ID** | Req\_P03DGW\_SRS\_001\_V07 | **Covers** | REQ\_PO3\_DGW\_CYRS\_01\_V02 |
| **Author** | Ghada Mohmed | **Date** | 05/03/2020 |
| **Description:** | Software shall set MODE\_CHANGE\_FLAG to 1 if BTN\_MODE signal is 0. | | |
| **Inputs** | BTN\_MODE | **Outputs** | MODE\_CHANGE\_FLAG |
| **Test scope** | ITD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_002\_V07 | **Covers** | REQ\_PO3\_DGW\_CYRS\_01\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 5/03/2020 |
| **Description:** | Software shall increment CURRENT\_MODE by 1 if MODE\_CHANGE\_FLAG is 1. | | |
| **Inputs** | MODE\_CHANGE\_FLAG | **Outputs** | CURRENT\_MODE |
| **Test scope** | ITD/VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_003\_V07 | **Covers** | REQ\_PO3\_DGW\_CYRS\_01\_V02 |
| **Author** | Ghada Mohamed | **Date** | 3/03/2020 |
| **Description:** | Software reset CURRENT\_MODE to 0 if CURRENT\_MODE is 2 and MODE\_CHANGE\_FLAG is 1. | | |
| **Inputs** | MODE\_CHANGE\_FLAG, CURRENT\_MODE | **Outputs** | CURRENT\_MODE |
| **Test scope** | ITD/VTD | | |

## **3.2 Display Time Mode**

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| **Req\_ID** | Req\_P03DGW\_SRS\_004\_V07 | **Covers** | REQ\_PO3\_DGW\_CYRS\_02\_V02 |
| **Author** | Ghada Mohmed | **Date** | 5/03/2020 |
| **Description:** | Software shall set CURRENT\_MODE to 0 (Display time mode) at Initialization | | |
| **Inputs** | - | **Outputs** | CURRENT\_MODE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_005\_V07 | **Covers** | REQ\_PO3\_DGW\_CYRS\_02\_V02 |
| **Author** | Ghada mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall display current time in HH:MM:SS AM/PM format on LCD if CURRENT\_MODE is 0. | | |
| **Inputs** | CURRENT\_MODE, CURRENT\_HOUR, CURRENT\_MINUTE, CURRENT\_SECOND, CURRENT\_FORMAT | **Outputs** | LCD\_DATA |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_006\_V06 | **Covers** | REQ\_PO3\_DGW\_CYRS\_03\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall set CURRENT\_HOUR to 12, CURRENT\_MINUTE to 0, CURRENT\_SECOND to 0, CURRENT\_FORMAT to 0 (AM) at initialization. | | |
| **Inputs** | - | **Outputs** | CURRENT\_HOUR, CURRENT\_MINUTE, CURRENT\_SECOND, CURRENT\_FORMAT |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_007\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_04\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment ADJUST\_FIELD\_SELECT by 1 if CURRENT\_MODE is 0 (Display) and BTN\_FUNC1 signal is 0. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC1 | **Outputs** | ADJUST\_FIELD\_SELECT |
| **Test scope** | ITD / VTD | | |
| **Req\_ID** | Req\_P03DGW\_SRS\_008\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_04\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall reset ADJUST\_FIELD\_SELECT to 1 if CURRENT\_MODE is 0 (Display), BTN\_FUNC1 signal is 0 and ADJUST\_FIELD\_SELECT is 3. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC1, ADJUST\_FIELD\_SELECT | **Outputs** | ADJUST\_FIELD\_SELECT |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_009\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_05\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment CURRENT\_HOUR by 1 if ADJUST\_FIELD\_SELECT is 1 (Hours selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | CURRENT\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_010\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_05\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall reset CURRENT\_HOUR to 1 if ADJUST\_FIELD\_SELECT is 1 (Hours selected), BTN\_FUNC2 is 0 and CURRENT\_HOUR is 12. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2, CURRENT\_HOUR | **Outputs** | CURRENT\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_011\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_06\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment CURRENT\_MINUTE by 1 if ADJUST\_FIELD\_SELECT is 2 (Minutes selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | CURRENT\_MINUTE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_012\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_06\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall reset CURRENT\_MINUTE to 0 if ADJUST\_FIELD\_SELECT is 2 (Minutes selected), BTN\_FUNC2 is 0 and CURRENT\_MINUTE is 59. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2, CURRENT\_MINUTE | **Outputs** | CURRENT\_MINUTE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_013\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_07\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall toggle CURRENT\_FORMAT if ADJUST\_FIELD\_SELECT is 3 (AM/PM selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | CURRENT\_FORMAT |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_014\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_08\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall reset ADJUST\_FIELD\_SELECT to 0, CURRENT\_MODE to 0 if BTN\_MODE is 0 and ADJUST\_FIELD\_SELECT is in range [1:3]. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_MODE | **Outputs** | ADJUST\_FIELD\_SELECT, CURRENT\_MODE |
| **Test scope** | VTD | | |

## **3.3 Alarm Mode**

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| **Req\_ID** | Req\_P03DGW\_SRS\_015\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_09\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall display alarm time in HH:MM:SS AM/PM format on LCD if CURRENT\_MODE is 1 (Alarm) and ALARM\_REACHED\_FLAG is 0. | | |
| **Inputs** | CURRENT\_MODE, ALARM\_HOUR, ALARM\_MINUTE, ALARM\_SECOND, ALARM\_FORMAT, ALARM\_STATE, ALARM\_REACHED\_FLAG | **Outputs** | LCD\_DATA |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_016\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_10\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall set ALARM\_HOUR to 12, ALARM\_MINUTE to 0, ALARM\_SECOND to 0, ALARM\_FORMAT to 0 (AM), ALARM\_STATE to 0 (Disabled) at initialization. | | |
| **Inputs** | - | **Outputs** | CURRENT\_MODE, ALARM\_HOUR, ALARM\_MINUTE, ALARM\_SECOND, ALARM\_FORMAT, ALARM\_STATE, ALARM\_REACHED\_FLAG |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_017\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_11\_V03 |
| **Author** | Ghada mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall increment ALARM\_FIELD\_SELECT by 1 if CURRENT\_MODE is 1 (Alarm) and BTN\_FUNC1 signal is 0. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC1 | **Outputs** | ALARM\_FIELD\_SELECT |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_018\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_11\_V03 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall reset ALARM\_FIELD\_SELECT to 0 if CURRENT\_MODE is 1 (Alarm), ALARM\_FIELD\_SELECT is 3, and BTN\_FUNC1 signal is 0. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC1, ALARM\_FIELD\_SELECT | **Outputs** | ALARM\_FIELD\_SELECT |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_019\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_12\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment ALARM\_HOUR by 1 if ALARM\_FIELD\_SELECT is 0 (Hours selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ALARM\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | ALARM\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_020\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_12\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall reset ALARM\_HOUR to 1 if ALARM\_FIELD\_SELECT is 0 (Hours selected), BTN\_FUNC2 is 0 and ALARM\_HOUR is 12. | | |
| **Inputs** | ALARM\_FIELD\_SELECT, BTN\_FUNC2, ALARM\_HOUR | **Outputs** | ALARM\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_021\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_13\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment ALARM\_MINUTE by 1 if ALARM\_FIELD\_SELECT is 1 (Minutes selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ALARM\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | ALARM\_MINUTE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_022\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_13\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall reset ALARM\_MINUTE to 0 if ALARM\_FIELD\_SELECT is 1 (Minutes selected), BTN\_FUNC2 is 0 and ALARM\_MINUTE is 59. | | |
| **Inputs** | ADJUST\_FIELD\_SELECT, BTN\_FUNC2, ALARM\_MINUTE | **Outputs** | ALARM\_MINUTE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_023\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_14\_V01 |
| **Author** | Ghada mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall toggle ALARM\_FORMAT if ALARM\_FIELD\_SELECT is 2 (AM/PM selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ALARM\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | ALARM\_FORMAT |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_024\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_15\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall toggle ALARM\_STATE if ALARM\_FIELD\_SELECT is 3 (Enable/Disable selected) and BTN\_FUNC2 is 0. | | |
| **Inputs** | ALARM\_FIELD\_SELECT, BTN\_FUNC2 | **Outputs** | ALARM\_STATE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_024\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_16\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall reset ALARM\_FIELD\_SELECT to 0, CURRENT\_MODE to 0 (return to display time) if BTN\_MODE is 0 and ALARM\_FIELD\_SELECT is in range [1:3]. | | |
| **inputs** | BTN\_MODE, ALARM\_FIELD\_SELECT | **Outputs** | ALARM\_FIELD\_SELECT |
| **Test scope** | ITD / VTD | | |
| **Req\_ID** | Req\_P03DGW\_SRS\_025\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_17\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall set ALARM\_REACHED\_FLAG to 1 if CURRENT\_HOUR, CURRENT\_MINUTE, CURRENT\_FORMAT is equal to ALARM\_HOUR, ALARM\_MINUTE, ALARM\_FORMAT respectively and ALARM\_STATE is 1 (Enabled). | | |
| **inputs** | ALARM\_STATE, CURRENT\_HOUR, CURRENT\_MINUTE, CURRENT\_FORMAT, ALARM\_HOUR, ALARM\_MINUTE, ALARM\_FORMAT | **Outputs** | ALARM\_REACHED\_FLAG |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_026\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_17\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall set ALARM\_BUZZER to 1 if ALARM\_REACHED\_FLAG to 1. | | |
| **inputs** | ALARM\_REACHED\_FLAG | **Outputs** | ALARM\_BUZZER |
| **Test scope** | ITD / VTD | | |

**Buzzer:**

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| **Req\_ID** | Req\_P03DGW\_SRS\_027\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_18\_V02 |
| **Author** | Amr Ibrahim | **Date** | 12/02/2020 |
| **Description:** | Software shall set ALARM\_BUZZER to 0 if ALARM\_REACHED\_FLAG is 1, and BTN\_FUNC2 is 0. | | |
| **inputs** | BTN\_FUNC2, ALARM\_REACHED\_FLAG | **Outputs** | ALARM\_BUZZER |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_028\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_18\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall increment BUZZER\_COUNTER by 1 if ALARM\_REACHED\_FLAG is 1, and ONE\_SEC\_FLAG is 1. | | |
| **inputs** | ALARM\_REACHED\_FLAG, ONE\_SEC\_FLAG | **Outputs** | BUZZER\_COUNTER |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_029\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_18\_V02 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall set ALARM\_BUZZER to 0 if ALARM\_REACHED\_FLAG is 1, and BUZZER\_COUNTER is 30. | | |
| **inputs** | BUZZER\_COUNTER, ALARM\_REACHED\_FLAG | **Outputs** | ALARM\_BUZZER |
| **Test scope** | VTD | | |

## **3.4 Stopwatch Mode**

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| **Req\_ID** | Req\_P03DGW\_SRS\_030\_V04 | **Covers** | REQ\_PO3\_DGW\_CYRS\_19\_V01 |
| **Author** | Ghada Mohamed | **Date** | 13/02/2020 |
| **Description:** | Software shall reset CURRENT\_WATCH\_STATE to 0 (paused) and display 00:00:00 on LCD if CURRENT\_MODE is 2 (Stopwatch) | | |
| **Inputs** | CURRENT\_MODE, COUNTER\_HOUR, COUNTER\_MINUTE, COUNTER\_SECOND | **Outputs** | LCD\_DATA, CURRENT\_WATCH\_STATE |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_031\_V05 | **Covers** | REQ\_PO3\_DGW\_CYRS\_20\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall set CURRENT\_WATCH\_STATE to 1 (running) if CURRENT\_MODE is 2 (Stopwatch), BTN\_FUNC1 is 0 and CURRENT\_WATCH\_STATE is 0. | | |
| **Inputs** | BTN\_FUNC1, CURRENT\_MODE, CURRENT\_WATCH\_STATE | **Outputs** | CURRENT\_WATCH\_STATE |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_032\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_20\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall increment COUNTER\_SECOND by 1 if CURRENT\_WATCH\_STATE is 1 (running), CURRENT\_MODE is 2 (Stopwatch), and ONE\_SEC\_FLAG is 1. | | |
| **Inputs** | CURRENT\_MODE, ONE\_SEC\_FLAG, CURRENT\_WATCH\_STATE | **Outputs** | COUNTER\_SECOND |
| **Test scope** | ITD / VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_033\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_20\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 20/02/2020 |
| **Description:** | Software shall reset COUNTER\_SECOND to 0 and increment COUNTER\_MINUTE by 1 if COUNTER\_SECOND is 59, CURRENT\_WATCH\_STATE is 1 (running), CURRENT\_MODE is 2 (Stopwatch), and ONE\_SEC\_FLAG is 1. | | |
| **Inputs** | CURRENT\_MODE, ONE\_SEC\_FLAG, CURRENT\_WATCH\_STATE, COUNTER\_SECOND | **Outputs** | COUNTER\_SECOND, COUNTER\_MINUTE |
| **Test scope** | ITD / VTD | | |
| **Req\_ID** | Req\_P03DGW\_SRS\_034\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_20\_V01 |
| **Author** | Ghada Mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall reset COUNTER\_SECOND and COUNTER\_MINUTE to 0, and increment COUNTER\_HOUR by 1 if COUNTER\_MINUTE is 59, COUNTER\_SECOND is 59, CURRENT\_WATCH\_STATE is 1 (running), CURRENT\_MODE is 2 (Stopwatch), and ONE\_SEC\_FLAG is 1. | | |
| **Inputs** | CURRENT\_MODE, ONE\_SEC\_FLAG, CURRENT\_WATCH\_STATE, COUNTER\_SECOND, COUNTER\_MINUTE | **Outputs** | COUNTER\_SECOND, COUNTER\_MINUTE, COUNTER\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_035\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_20\_V01 |
| **Author** | Mariam El-Shakafi | **Date** | 06/03/2020 |
| **Description:** | Software shall reset COUNTER\_SECOND and COUNTER\_MINUTE, and COUNTER\_HOUR to 0 if COUNTER\_HOUR is 99, COUNTER\_MINUTE is 59, COUNTER\_SECOND is 59, CURRENT\_WATCH\_STATE is 1 (running), CURRENT\_MODE is 2 (Stopwatch), and ONE\_SEC\_FLAG is 1. | | |
| **Inputs** | CURRENT\_MODE, ONE\_SEC\_FLAG, CURRENT\_WATCH\_STATE, COUNTER\_SECOND, COUNTER\_MINUTE | **Outputs** | COUNTER\_SECOND, COUNTER\_MINUTE, COUNTER\_HOUR |
| **Test scope** | VTD | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_036\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_21\_V01 |
| **Author** | Ghada Mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall reset CURRENT\_WATCH\_STATE to 0 (paused) if CURRENT\_MODE is 2 (Stopwatch), BTN\_FUNC1 is 0, and CURRENT\_WATCH\_STATE is 1. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC1, CURRENT\_WATCH\_STATE | **Outputs** | CURRENT\_WATCH\_STATE |
| **Test scope** | ITD / V | | |

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| **Req\_ID** | Req\_P03DGW\_SRS\_037\_V01 | **Covers** | REQ\_PO3\_DGW\_CYRS\_22\_V01 |
| **Author** | Ghada Mohamed | **Date** | 5/03/2020 |
| **Description:** | Software shall reset COUNTER\_HOUR, COUNTER\_MINUTE, COUNTER\_SECOND to 0 if CURRENT\_MODE is 2 (Stopwatch), and BTN\_FUNC2 is 0. | | |
| **Inputs** | CURRENT\_MODE, BTN\_FUNC2 | **Outputs** | COUNTER\_HOUR, COUNTER\_MINUTE, COUNTER\_SECOND |
| **Test scope** | ITD / VTD | | |