

**PO3\_DGW\_ Digital Watch**



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| 1.0 | Initial creation of the document | Mostafa Nader  Hammam Mazen | 22/1/2020 |
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Contents

[1 Introduction 3](#_Toc30617778)

[1.1 Purpose 3](#_Toc30617779)

[2 Methodology 4](#_Toc30617780)

[3 REQUIREMENTS 4](#_Toc30617781)

[3.1 Req\_ PO3\_DGW\_CYRS\_01\_V01 4](#_Toc30617782)

[3.2 Req\_ PO3\_DGW\_CYRS\_02\_V01 4](#_Toc30617783)

[3.3 Req\_ PO3\_DGW\_CYRS\_03\_V01 5](#_Toc30617784)

[3.4 Req\_ PO3\_DGW\_CYRS\_04\_V01 5](#_Toc30617785)

[3.5 Req\_ PO3\_DGW\_CYRS\_05\_V01 5](#_Toc30617786)

[3.6 Req\_ PO3\_DGW\_CYRS\_06\_V01 5](#_Toc30617787)

List of Figures

[Figure 1Digital-Watch High Level Block Diagram 5](file:///C:\Users\MOSTAFA\Desktop\cyrs.docx#_Toc30615733)

List of Figures

[Table 1 CYRS Requirements referring to CRS requirements 6](#_Toc30617641)

# Introduction

Digital watches are common now a days, digital watches show the time as numbers, e.g., 10:55 Am instead of a shorthand pointing towards the number 10 and a long hand pointing towards the number 11. The digits are usually shown as a [seven-segment display](https://en.wikipedia.org/wiki/Seven-segment_display) or a LCD display. Sometimes this digital watches includes some extra features besides displaying the time in numbers format, e.g., lighting the display, stopwatch, alarm and more other features depending on the manufacturer.

## Purpose

The Customer Requirement Specifications (CYRS) document will reference a Digital-Watch including several implemented features e.g. setting alarm times that triggers a buzzer when the time hits the set time, stop watch that helps the user to count several times according to his requirements.

# Methodology

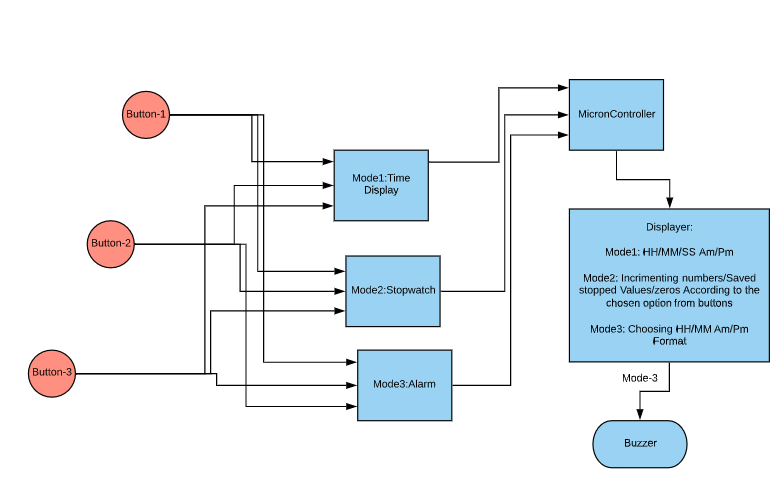


Figure 1Digital-Watch High Level Block Diagram

# REQUIREMENTS

## Req\_ PO3\_DGW\_CYRS\_01\_V01

The Software shall display the current time in this format (HH/MM/SS AM/PM) on a displayer if the displaying time mode is chosen

## Req\_ PO3\_DGW\_CYRS\_02\_V01

The software shall take an input time from the user and notifies the user with a buzzer when the set alarm time arrives

## Req\_ PO3\_DGW\_CYRS\_03\_V01

The Software shall start incrementing its display numbers referring to real time seconds, minutes and hours if the Stopwatch mode is chosen

## Req\_ PO3\_DGW\_CYRS\_04\_V01

The Software shall display save its last values and display it to the user if the Stopwatch mode is chosen

## Req\_ PO3\_DGW\_CYRS\_05\_V01

The Software shall reset every value on the screen to zeros and stops if the Stopwatch mode is chosen

## Req\_ PO3\_DGW\_CYRS\_06\_V01

The Software shall have a button that switches between the three modes (Displaying time, Stopwatch, Alarm) of the digital watch

Table 1 CYRS Requirements referring to CRS requirements

|  |  |
| --- | --- |
| **CYRS REQUIREMENT** | **CRS REQUIREMENT** |
| Req\_ PO3\_DGW\_CYRS\_02\_V01 | Display the time with 12 AM/PM format |
| Req\_ PO3\_DGW\_CYRS\_02\_V01 | Alarm to be set as per the input |
| Req\_ PO3\_DGW\_CYRS\_03\_V01 | Stopwatch with “start, stop, and Reset” |
| Req\_ PO3\_DGW\_CYRS\_04\_V01 | Stopwatch with “start, stop, and Reset” |
| Req\_ PO3\_DGW\_CYRS\_05\_V01 | Stopwatch with “start, stop, and Reset” |
| Req\_ PO3\_DGW\_CYRS\_06\_V01 | The user can control the Digital watch with only 3 buttons |