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| Photo displaying partial image of two pie charts on a canvas-textured page |
| PO3\_DGW  Customer System Requirements Specifications Document |
| |  |  |  | | --- | --- | --- | | Bassem Ezzat | 1/24/20 | Mohanned Elsayed | |

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| --- | --- | --- | --- |
| *Version* | *Author(s)* | *Date* | *Changes* |
| 0.0 | - Bassem Ezzat  - Mohammed Elsayed | January 24, 2020 | Creation of CYRS document |
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1. Introduction
   1. Purpose

This document aimed to clarify the CRS doument and list a customer requierment specification to design a digital watch.

* 1. Document Abbreviation

|  |  |
| --- | --- |
| CYRS | Customer System Requirement Specifications |
| CRS | Customer Requirement Specifications |
| ERD | Entery relational digram |
| SIQ | Software interactive questionnaire |
| FUNC | Functional button |
| INC | Increment button |
| DEC | Decrement |

* 1. Intended audience and reading suggestions

This project is a prototype for a digital watch and it is applicable to be a commercial product. This has been implemented under the guidance of ITI’s trainers.

* 1. Project Scope

The purpose of this project is to create modern stunning digital watch.

* 1. References

Not available yet

1. Overall Description
   1. Product features

The major feature of the digital watch as listed below.

* Display time with 12 AM/PM format.
* Alarm to set according to user input.
* Stopwatch (Start, Stop).
* Three buttons to control the system:
  + FUNC
  + INC
  + DEC
  1. Operation environment

Operating environments for the digital watch are houses, offices, shops, and hotels.

* 1. Design and Implementation constraints
* Software layer design
* Hardware components selection

1. System Features
   1. Functional requirements
      1. REQ\_PO3\_DGW\_CYRS\_01\_V01

Display Time Mode:

First mode in digital watch is using to display the time in hours and minutes with AM/PM format (default mode when the system powered up). Time can be adjusted with three buttons to set and adjust the time and switching to other modes.

Adjust Time:

To adjust the time (minutes), press FUNC button once, so the minutes start blinking to indicate that it can be modified using INC and DEC buttons.

To adjust the time (Hours), press FUNC button twice, so the hours start blinking to indicate that it can be modified using INC and DEC buttons.

* + 1. REQ\_PO3\_DGW\_CYRS\_02\_V01

Alarm Mode:

Second mode in digital watch is to Alarm time which is using a buzzer notification when reached the pre-adjusted time could be a hours or minutes.

Adjust Alarm:

To enter that mode, use long press on FUNC button.

To adjust the time (Minutes), press FUNC button once and minutes can be modified using INC and DEC buttons.

To adjust the time (Hours), press FUNC button twice and hours can be modified using INC and DEC buttons.

Buzzer:

When adjusted time in alarm mode reached to current time, buzzer should be triggered.

* + 1. REQ\_PO3\_DGW\_CYRS\_03\_V01

Stopwatch Mode:

Third mode in digital is stop watch, which counts down from the predefined time to zero then fire alarm sound notification. Finally, when reach the desired time, press to another button called start and stop watch start count down till reach 0 an hour and 0 minuet’s

Adjust Stopwatch:

To enter that mode, use long press on FUNC button two times.

To adjust the time (Minutes), press FUNC button once and minutes can be modified using INC and DEC buttons.

To adjust the time (Hours), press FUNC button twice and hours can be modified using INC and DEC buttons.

Buzzer:

When adjusted time in alarm mode reached to current time, buzzer should be triggered.

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| **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 | Reset all digits once entering stopwatch mode |
| Req\_ PO3\_DGW\_CYRS\_05\_V01 | User can control digital watch modes using one button |

1. External Interface Requirements
   1. User interfaces
   2. Hardware interfaces
   3. Software interfaces
   4. Communications interfaces

1. Nonfunctional Requirements
   1. Performance Requirements
   2. Safety requirements
   3. Security Requirements
   4. Software Quality