# CRS

## Hardware Requirements

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| --- | --- |
| [REQ#] | Hardware Characteristics |
| REQ1 | LCD to display the time. |
| REQ2 | Buttons to switch between modes and control the watch |
| REQ3 |  |
| REQ4 |  |
| REQ5 |  |

## User Requirements

|  |  |
| --- | --- |
| [REQ#] | Title |
| REQ1 | The software shall allow the user to set the time by setting the hours and minutes |
| REQ2 | Display the time with 12 AM/PM format |
| REQ3 | The software shall allow the user to set the alarm |
| REQ4 | The software shall allow the user to set the stopwatch |

## Input and Output Requirements

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| --- | --- |
| [REQ#] | Input Requirements |
| REQ1 | The software shall allow the user to set the time (hours and minutes). |
| REQ2 | The software shall allow the user to choose between modes |

|  |  |
| --- | --- |
| [REQ#] | Output Requirements |
| REQ1 | The software shall Alert the user on time |

//AS a functional and non-functional

# Functional Requirements

|  |  |
| --- | --- |
| [REQ#] | Title |
| Display Time | Pressing button 3 (one time ) allows the user to be in normal mode(Display Time).  pressing button 2 allows the user to set the minutes by pressing button 1 (each press= min++)  pressing button 2 again allows the user to set the hours by pressing button 1 (each press= hr.++)  It switches between AM or PM automatically after 12 |
| Alarm | Pressing button 3 (two times ) allows the user to set an alarm.  pressing button 2 allows the user to set the minutes by pressing button 1 (each press= min++)  pressing button 2 allows the user to set the hours by pressing button 1 (each press= hr.++)  It switches between AM or PM automatically after 12 |
| Stopwatch | Pressing button 3 (three times ) allows the user to set the stopwatch  pressing button 1 to reset  pressing button 2 to start  pressing button 2 again to stop |

# Non-Functional Requirements

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| --- | --- |
| [REQ#] | Title |
| REQ1 | Display Time mode which provides the core services and controls the watch. |
| REQ2 | Alarm mode that saves alarm settings at a specific time. |
| REQ3 | Stopwatch mode which provides the stopwatch services. |
| REQ4 | The stopwatch’s counter resolution should be 200ms. |
| REQ5 | The time resolution for the watch should be 500ms. |
| REQ6 | The watch must be displayed in the format hh:mm AM/PM and updates every second. |
| REQ7 | The stopwatch must be displayed in the format hh:mm:ss |