|  |  |
| --- | --- |
| Customer | **Sovy - Digital Calculator PO1\_DGC** |
| Target | Digital Calculator System |
| Requirements | “Sovy” is a leading digital calculator manufacturer that serves many customers in different regions. “Sovy” is searching for a simple digital calculator system with the following requirements :   * The digital calculator should have buttons for all basic mathematical operations and button to open/close calculator. * The user should enter the numbers and select the operations need to be performed through a keypad. * Both the operations and result shall be appeared on a display. * When the user press any key, it must be followed by a tune released from a speaker embedded in the calculator. |
| Due Date | March 24, 2021 |
| Hardware | 1. Microcontroller 2. Keypad 3. LCD 4. Buzzer |

|  |  |
| --- | --- |
| Req\_1ST123\_CR\_overall\_01-V1.0 | The digital calculator should have buttons for all basic mathematical operations and button to open/close calculator. |
| Req\_1ST123\_CR\_overall\_02-V1.0 | The user should enter the numbers and select the operations need to be performed through a keypad. |
| Req\_1ST123\_CR\_overall\_03-V1.0 | Both the operations and result shall be appeared on a display. |
| Req\_1ST123\_CR\_overall\_04-V1.2 | When the user press any key, it must be followed by a tune after button release, from a buzzer and beep sound should last from 300 to 400 ms. |
| Req\_1ST123\_CR\_overall\_05-V1.0 | The display on LCD should look like this:  |5+5 |  | 10| |
| Req\_1ST123\_CR\_overall\_06-V1.0 | Clear feature should be added. |
| Req\_1ST123\_CR\_overall\_07-V1.1 | Multi operation in one line is supported up to 4 operations in the same line. |
| Req\_1ST123\_CR\_overall\_08-V1.0 | The user can operate on the result. |
| Req\_1ST123\_CR\_overall\_09-V1.0 | The maximum number of digits should follow this formula:  (LCD\_Length/2)-1. |
| Req\_1ST123\_CR\_overall\_010-V1.0 | There is separate button to turn on/off the backlights of the lcd. |
| Req\_1ST123\_CR\_overall\_011-V1.0 | The calculator supports float numbers with accuracy of  3 digits after the floating point. |