

Lab Continuous Assessment

Problem Statement:

All of you are familiar with the trial version of software. You can use the trial version of software for a limited time for example 1 month. After 1 month, you need a password to run the full version of the software. Similarly, you have to design a system for the “***Trial version of Hardware***”. Suppose that your system will be integrated to a machine. Unlike trial version of software, the machine will be operated with full functionality but for a limited time. The machine will be operated consistently 240 hours for 1 password and 3 passwords will run the machine for total 720 hours but each password cannot be used twice. Finally, a separate password will run the machine forever. The technical details is given below:

1. Use 4 digit 7 segment display for Password visualization.
2. Use 3 or 4 Push button switches for password switching.
3. You have to save 4 passwords in microcontroller. Three temporary passwords and 1 final password.
4. The system will operate either in Programming mode or in Run mode. In programming mode the user can set the password and in Run mode the machine will be operated. While running in the programming mode all the output pins will be in OFF State.
5. There will be 4 output LEDs and they turns ON for each password while the other remains in OFF state.
6. Either of the four output pin can drive the entire machine.