AUTOMATED REST ROOM

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ABSTRACT

There are many night life activated in this area where humans trying to spend their night as a gathering and also to release the working stress of the whole day that causing a lot of the people around this world cannot be wakening up by the normal conventional alarm clock nowadays. Due to this unexpected and unwanted situation, there is so many people who will be later for work, classes, meeting, events and some others important appointments.

This project 'Automated Rest Room' is a design prototype project that is used to overcome this unwanted situation that makes so many people late for their important appointments. In this project, vibrating motion and alarm sound is mainly used to wake up the users. The whole process of this project is controlled by a microcontroller with a sequential programming. The construction of this project will consist of a bed with vibrators and IR sensor, a fan and a light bulb.

Here will describe the sequence of this prototype project and how it really functions. When the power is switched on, the fan will start running and the LCD will start displaying the counting time. By activating the alarm clock, the user can press the 'SET' alarm button and followed by the 'MINUTE' and 'HOUR' button to set their desire time. The clock will continue counting its time and when the clock reaches the alarm time, then the buzzer will activate by producing an alarm sound until the user switches off the power as the alarm sound will activate continuously. The IR sensor later then will start to detect the availability of the user whether the user is still on the bed or not. At the same time, the fan will be switches off and the light bulb will be switches on automatically and simultaneously once the user is still be detected on the bed. After a few seconds again, the IR sensor will re-detect the availability of the user on the bed and if the user is still on the bed, then the vibrator under the bed will be activated by vibrating the bed until the user wakes up. This whole process can only be stopped by switching off the power.