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Group name: overnight_coders
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[GP1_MGMT](https://gitlab.com/bvc_a.resendeviana683/fall2017/tech1102/iot_group_project.git
)
Description : This is the first milestone of a Group Project that was completed in order to attend the subject “Internet of Things" in the program Software Development at Bow Valley College.

Project Proposal

Idea Description

The main objective of this project is to develop an alarm clock using the Arduino Leonardo platform.

Usually, this kind of device is disabled after the user presses a button to deactivate its buzzer. We decided to do something a little bit different. Instead of turn off its buzzer by simply pushing a button, we thought that it would be a better idea to ask to the users to set the potentiometer (Arduino’s feature) input into three different positions before deactivate the alarm sound. By doing this we believe that users would be “forced” to stay awake to input the right “combination” and then silence the device.

To let the user know when it is time to rotate the potentiometer to the next position we decided to use the LED’s as warning signs.

Main Features

- Adjustable clock time; It uses Arduino’s SW1 Button and its Potentiometer to adjust it.
- Adjustable alarm time; It uses Arduino’s SW2 Button and its Potentiometer to adjust it.
- Loud buzzer; It uses Arduino’s buzzer to make noise.
- Rotation sensor to input “deactivation code”; It uses Arduino’s Potentiometer to do it.
- Signalling LED’s; After the first input is correct, Blue LED turns on; After the second, Red LED; After the third, both LED’s are turned off.
- Resettable combination counters; By rotating the potentiometer counter clockwise, the user prepares the device to trigger when the time is right.
- LCD display; It shows clock time and alarm time.
- Utilizes light sensor to trigger its buzzer; Used only during prototyping phase.