# Project Proposal: Thermometer

Description

This project proposes a design of an electronic thermometer.

Features

* Battery operated
* Fairly small and compact
* With a small LCD screen
* ON/OFF button with auto-sleep.

Requirements

1. Device must run on a 1.5V AAA battery.
2. Device must be no longer than 15cm long and 2cm in diameter.
3. Device must show the recorded temperature on a lit screen.
4. Device must have a button to turn it off or on.
5. Device must go to sleep every 60 seconds to save battery.

Main parts Involved

* Hardware: Compact PCB, low power uC, ADC, 4 digit segment display), parallel to serial register (interface display pins), & a battery.
* Firmware: Use Keil or any other depending on the uC.
* Enclosure: Design the case in FreeCAD or fusion360.

Resources

* Time: 6 weeks
* PCBs: use JLC PCB or PCB\_way.
* Firmware& new uC architecture.
* Enclosure prototypes