TEMP LOGGER (v 0.0.1)

# This Design is for temperature data logging application, which is implemented using a simple, low power Microcontroller.

# The data is logged into a SD card mounted on the PCB that is implemented using SPI communication protocol.

# This design makes use of a Positive Temperature Co-efficient (PTC) Silicon based Thermistor [TMP36GT9Z].

# This PCB is Battery powered and also includes a Battery Management System (BMS) for determining the battery charge and health.

# A Relay and a Buzzer is also implemented for any actuator switching and warning application.

# Main Components used:

## MCU: STM32G030F6P6 [TSSOP20]

## Thermistor: TMP36GT9Z [SOT23]

## BMS: BQ27427YZFR [BGA-IC]

## SD card.

## Indications of the LED lights:

## Blue: Indicates Power on/ Battery connected state.

## Red: Indicates Programming/Debug process.

## Green: Indicates Data being written onto the SD card i.e. Data-logging process.

## Functions of the PUSH buttons:

## BMS: wakes up the BMS from sleep mode.

## RESET: Reset’s the MCU in case of any errors.

## You can find all the design files and necessary datasheets below.

# Thankyou

## -Regards

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