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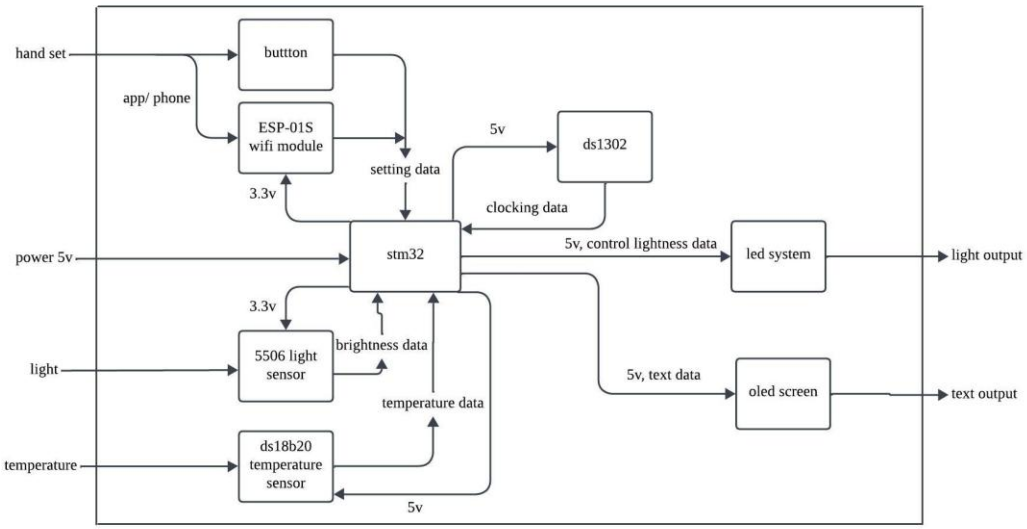
STM32-Based Smart Lighting Control System

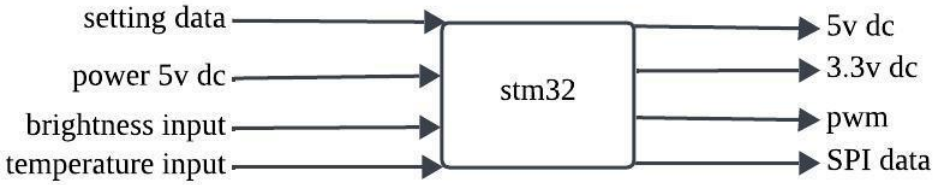
lightness controlling led: LEVEL 0

Module	STM32-Based Lighting Control System
Input	Light: lightness sensor Temperature: temperature sensor Hand set: WIFI and button
Output	Light output: led Temperature output: oled screen
Functionality	This system can receive outside lightness and according it to adjust its lightness to satisfied the requirement people set. Can also set on-off time and show the current temperature.

lightness controlling led: level 1

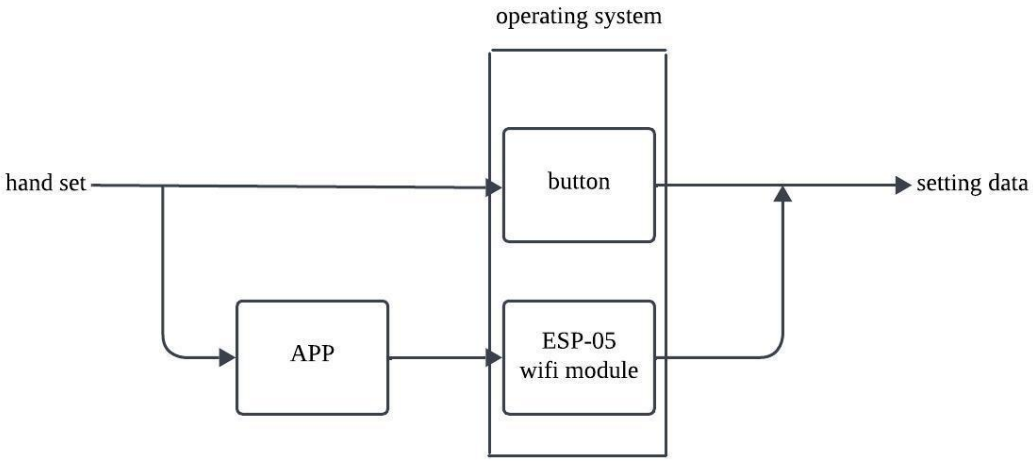


Stm32: level 1



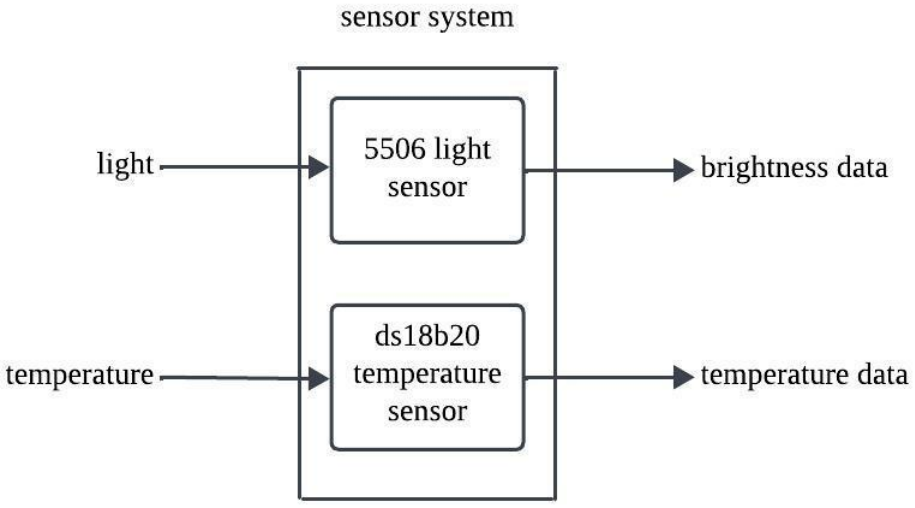
Module	Stm32
Input	Setting data: from physical button and WIFI module Power: 5v dc from battery Brightness input: 5506 light sensor Temperature input: ds18b20 temperature sensor
Output	Power:5v, 3.3v PWM: led system SPI data: oled screen
Functionality	Receive power and input operating data. The setting data and the brightness input decide the PWM output, and the temperature input decides the SPI data

Operating system: level 1



Module	Operating system
Input	The press of a physical button Actions on the app
Output	Setting data to stm32
Functionality	Receives an action from the user and makes a request to the processor.

Sensor system: level 1

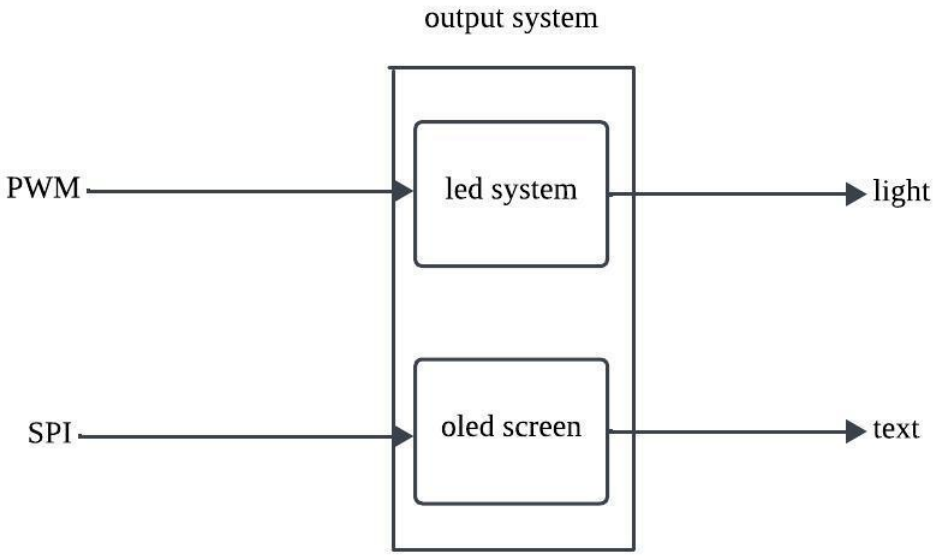


Module	Sensor system
Input	Outside light and temperature
Output	Brightness and temperature data
Functionality	Accepts external brightness and temperature information while transmitting the data to the processor

Clock: level 1

Module	Clock
Input	5v dc power
Output	Clock data
Functionality	Provide a clock for the product

output system: level 1



Module	output system
Input	PWM and SPI from stm32
Output	Light and text on the oled screen
Functionality	Accept control from stm32, respectively output light and text