

# Automated Lighting System



## Product Description

- This product is an ESP32, Sinric Pro and Google Assistant module that allows users to activate three lights control system.
- The system turns on and off three lights based on verbal instructions through Google Assistant.

## How does it work?

### Verbal Recognition

- This product requires Google Assistant to recognize the voice commands. It also works with Sinric Pro to display and update the lighting status dashboard.
- The ESP32 NodeMCU is programmed to read the inputs and output corresponding signals.

### Relay Control

- ESP32 NodeMCU outputs the signals to control the relay.
- The lights turn on/off when the relay closes/opens the lighting circuit.

### Real-time System

- Real-time monitor and dashboard for the lighting system on both computer and mobile phone.

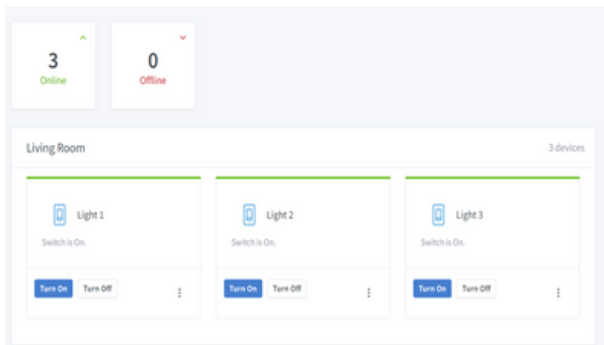
## Features

- 1 x rigid plastic case
- 1 x 12V adapter
- 1 x micro-USB cable
- 3 x 12V light
- 1 x relay channel module
- 1 x ESP32 NodeMCU
- 1 x soldering board
- Google Assistant
- Sinric Pro

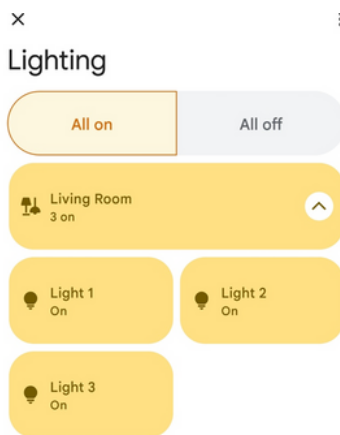
Wire connections are placed in the product rigid case.

## Package Details

- Dimension (HxWxL): 6.5 cm x 20 cm x 20 cm
- Weight: 300 g
- One power adapter - connected to a socket
- One USB cable - connected to a 5V USB port



*Sinric Pro web Dashboard*



*Google Assistant Display*

## Specifications

### Voice-based System

- The system allows user to turn on and off lights through Google Assistant and update light status.
- The system processes the verbal commands and control the relays accordingly.
- Users can all turn on and off lights by clicking or tapping on the options shown on the dashboards.

### Inter-connected Devices

- The ESP32 NodeMCU and the mobile phone with Google Assistant must be connected to the same Wi-Fi.
- The ESP32 needs to be programmed to operate under the same network as other devices.

### Power Requirement

- Each light requires 0.25 A to operate at 12V. Three lights must be supplied with 9 W.
- The ESP32 NodeMCU takes approximately 0.5 W.
- Thus, the system requires 9.5 W in total.

## Product Demo

YouTube demonstration video:  
[https://www.youtube.com/watch?v=lvV0YaH\\_ON0](https://www.youtube.com/watch?v=lvV0YaH_ON0)



## Main Part Details

### ESP32 NodeMCU

- Programmed to receive commands and send output signals to control the relays
- [Datasheet](#)

### 4-Channel Relay Module

- Receive signals from micro-controller to turn lights on and off
- [Datasheet](#)

### Google Assistant – Mobile App

- Allows users to talk to their phone and turn on and off lights
- Display real-time lighting status

### Sinric Pro – Web

- Display real-time lighting status in a web browser. Can be accessed through a computer with Wi-Fi

### 12V light x 3

- Turn on and off based on users' voice commands