

**ESP32 RGB lamp**

Version 2020-05-29

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Summary

# Quick start guide

Follow these steps

1. Connect an 5V power supply, the lamp is max 5V 4A, so make sure you have at least a 2A charger! Of the DC jack ground is the outer pin, and 5V is the inner.
2. The leds will blink shortly and soft white for a plit second, this is to show that bootup was succesfull.

If the LEDs are BLUE/RED/BLUE/RED it means it connecting to wifi, if this takes more that 10 seconds it will have created an Acces Point for you

1. The AP is called “ESP 32” connect to this.
2. When connected go to [192.168.4.1](http://192.168.4.1/) this will show you a page where you can input the WIFI name and password, do so and submit

# Creating an unit

## 2.2 Printing

Tingiverse <will be uploaded>

## 2.3 PCB & wires

Schematic/PCB <https://easyeda.com/jellewietsma/smart-light>

## 2.4 Firmware

Github <will be uploaded>

# Features

## 3.2 Button

The button has 3 actions, these can change in diffrent modes

1. StartPress

Triggered when you start a press, will be rejected if sooner than Time\_RejectStarts (80ms) of the last press).

* Will togle the lamp ON/OFF

1. StartDoublePress

Triggered when you start a second press between Time\_RejectStarts (80) and Time\_StartDoublePress (200) ms after the last one ended.

* Will change the mode to ‘RAINBOW’ and a RGB wheel will spin

1. StartLongPress

Triggered when you press the button longer than Time\_StartLongPressMS (5000) but shorter than Time\_ESPrestartMS (15000) ms.

* If it was connected to WIFI: Show IP

Note that LEDs can either turn on 1 or 10 at a time

To calculate IP: Amount of LEDs blink +

if (RED) then +0

if (Green) then +60

if (+Blue) then +120

* If it isn’t connected to WIFI, start connecting to WIFI (and posible run into AP mode, but thats explained in 3.4 WIFI page)

## 3.3 Potmeter

## 3.4 WIFI page

# Common mistakes/ troubleshooting

# Refferences

# Appendex

## -Firmware

## -PCB & schematic

## - 3d modeles