

## Objectives

**Design a surface mount PCB** to control lighting strips in my dorm room and practice my PCB design skills

Create an **interface** to control the lighting strips easily from my laptop. Map different colors, patterns, and brightness for different programs & settings

## Approach

I made adding light strips as **easy as possible** by using phone connectors to connect the lights to the centralized boards. This also meant the system was modular and the cables could be physically disconnected from the LEDs

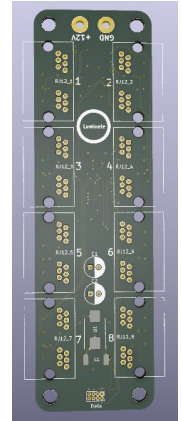
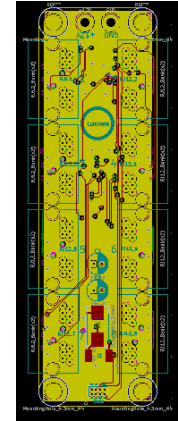


*Example of satellite connects used in different parts of my room*

## Proof of Concept

**KiCAD** PCB software used to design both boards used in the project

A **Raspberry Pi** (RPI) was used as the centralized controller for the system which allowed me to control settings from my laptop



## Results

Final boards integrated and used in my room, controlled off a centralized RPI

