

Notes on 3D models

T Kukla

January 26, 2022

A word of caution

I am **very** new to 3D modeling. These are here so you can see what I did, but I doubt they'll be useful as-is.

Sender — box

This box holds the ESP32 HUZZAH Feather board with the TCS34725 RGB sensor situated at the top with both components soldered to perf board. The screw holes don't really work, I had to make them a bit larger after printing (sorry for not fixing the model but, as I said, you probably shouldn't use it anyway). The boards rest on the two boxes, with the taller one at the top and smaller at the bottom. This is because (1) I made the box too deep and (2) I didn't design it well enough for the board to fit snugly, so these boxes also serve as a point of contact for mounting tape.

Receiver — lamp

This folder contains three files (1) **lamp_BASE.stl**; (2) **lamp_TOP.stl**; and (3) **lamp_OTHER.stl**. The base and top have holes for magnets at each corner, although the holes on the base are slightly shifted inward relative to the top because of a last-minute design change. The base includes a generous rectangular hole for the USB-mini port of the Feather board as well as a circular hole for a switch. The hole on the top is there to light up a print I positioned on top of the lamp.

The “other” file is admittedly confusing. This file includes a cone to wrap LEDs around. However, the cone is too large to be positioned in the middle of the base, so I rest it on the four stilts (thin disk is useful for a secure yet detachable setup, such as with command strips).