Tasks:
– Double–check wiring for all components. Just for a sanity check.
– Check the dimensions of the PCB. As there are issues with the size of the RFID in 3D view.
– Need to make sure Footprints are added to the componets and matching dimensions. Belive this is good NOW!
– Change labels to wires. It was fine as labels but would be better as wires.
– Test placesments?? for compoents?? Like anymroe??

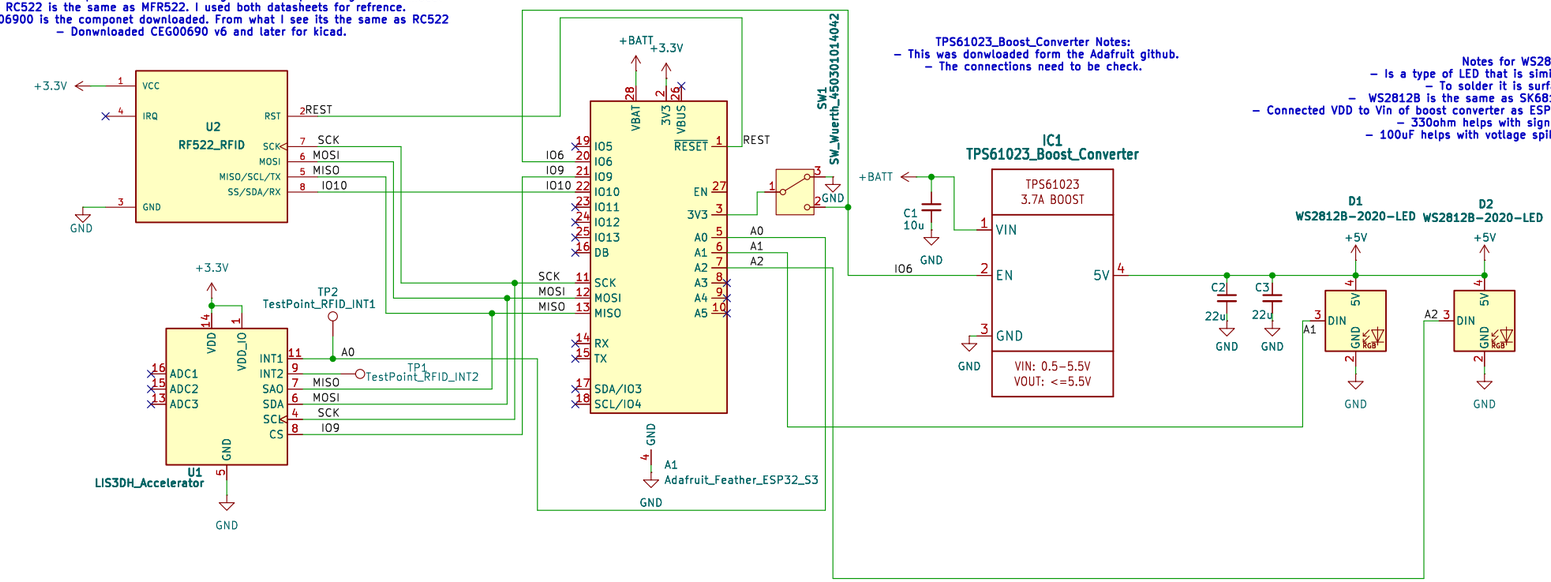
ESP32–S3 Notes
– ESP32–S3 Feather from adafruit and the usb is in the board.
– Orgianlly Adafruit HUZZAH32 ESP32 Feather.
– This is edited to be ESP32–S3 Feather by the pinouts. couldn't find online in time
– ^^ also change the size form the HUZZAH32 ESP32 Feather to match with ESP32–S3 Feather as this is different.
– ^^ Also never change the pin demsions and the eleterical type.

RFID Notes:
– Downloaded and replaced the RFID with right sch. and pin sizing and 3D model
– RC522 is the same as MFR522. I used both datasheets for refrence.
– CEG006900 is the componet downloaded. From what I see its the same as RC522
– Donwnloaded CEG00690 v6 and later for kicad.

Battery Notes:
– Battery is external.

TPS61023_Boost_Converter Notes:
– This was donwloaded form the Adafruit github.
– The connections need to be check.

Notes for WS2812B:
– Is a type of LED that is simialer to the NeoPixel
– To solder it is surface mount.
– WS2812B is the same as SK6812 according to Adafruit
– Connected VDD to Vin of boost converter as ESP32 can not reguaite the votlage needed.
– 330ohm helps with signal rining/spikes
– 100uF helps with votlage spikes with multiple LED



ECE411_Team 1_ A–Team
Portland State University
Sheet: /
File: A_Team_ECE411.kicad_sch
Title: Illumi–not–i Bike Safety System
Size: B | Date: 2025–10–27 | **Rev: 7**
KiCad E.D.A. 9.0.5 | Id: 1/1