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

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 similer to the NeoPixel
 — To solder it is surface mount.
 — WS2812B is the same as SK6812 according to Adafruit

U2
RF522_RFID

+3.3V
VCC
IRQ
RST
SCK
MOSI
MISO/SCL/TX
SS/SDA/RX
GND

U1
LIS3DH_Accelerator
+3.3V
VDD
VDD_IO
INT1
INT2
SAO
SDA
SCK
CS
ADC1
ADC2
ADC3
GND

TP2
TestPoint_RFID_INT1
TP1
TestPoint_RFID_INT2

A1
Adafruit_Feather_ESP32_S3

+BATT +3.3V
VBAT
3V3
VBUS
IO5
IO6
IO9
EN
3V3
A0
A1
A2
A3
A4
A5
RESET
SCK
MOSI
MISO
RX
TX
SDA/IO3
SCL/IO4
IO6
IO9
IO10
IO11
IO12
IO13
DB
GND

REST
+3.3V

SW1
SW_Wuerth_450301014042

+3.3V
GND

IC1
TPS61023_Boost_Converter
TPS61023
3.7A BOOST
+BATT
VIN
EN
GND
5V
VIN: 0.5–5.5V
VOUT: <=5.5V

C1
10u
GND
IO6
GND

C2
22u
GND
C3
22u
GND

D1
WS2812B-2020-LED
+5V
DIN
GND

D2
WS2812B-2020-LED
+5V
DIN
GND

A0
A1
A2

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: 8
KiCad E.D.A. 9.0.5   Id: 1/1