


A blank coordinate system with a vertical y-axis labeled "Power" and a horizontal x-axis. The axes are represented by thin black lines, and the origin is at the bottom-left corner.

### [3] SENSORS & FEEDBACK



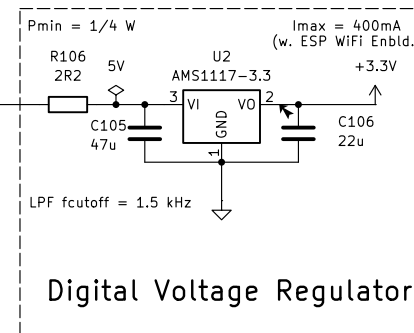
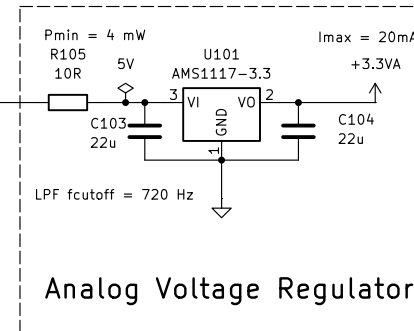
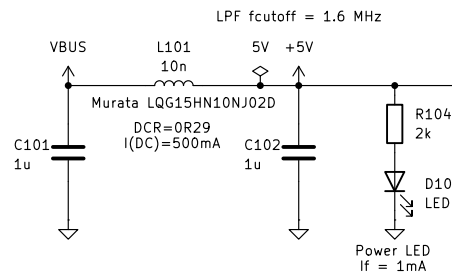
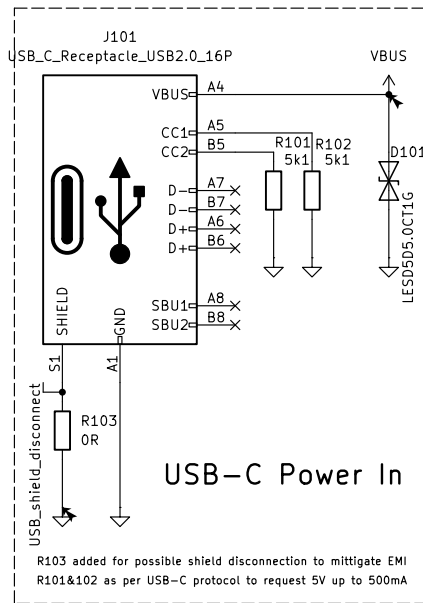
MCU

#### [4] STEREO AUDIO CODEC




H1 MountingHole

Id: 0/5



Lowered Power Rating on Analog 3.3V Rail regulator & passives  
**BUCHAREST APPLIED STEAM MUSEUM**

Sheet: /Power/  
File: Power.kicad\_sch

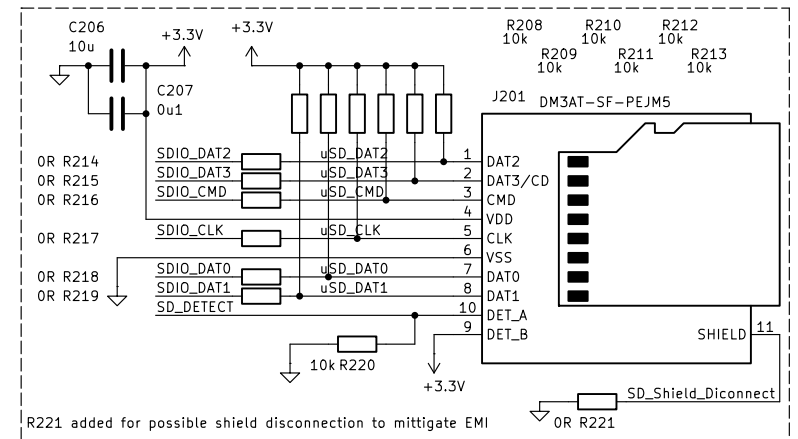
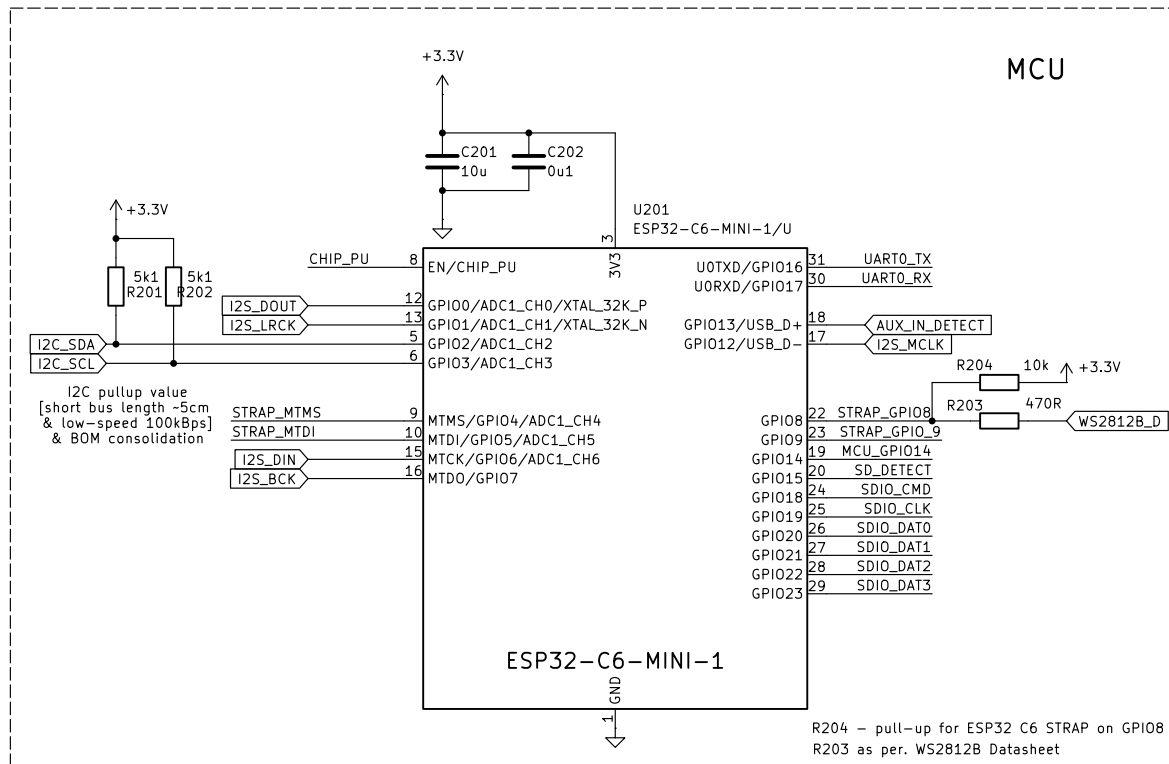
**Title: BASM SOUNDCARD DEV V0**

Size: A4 Date: 2025-04-29

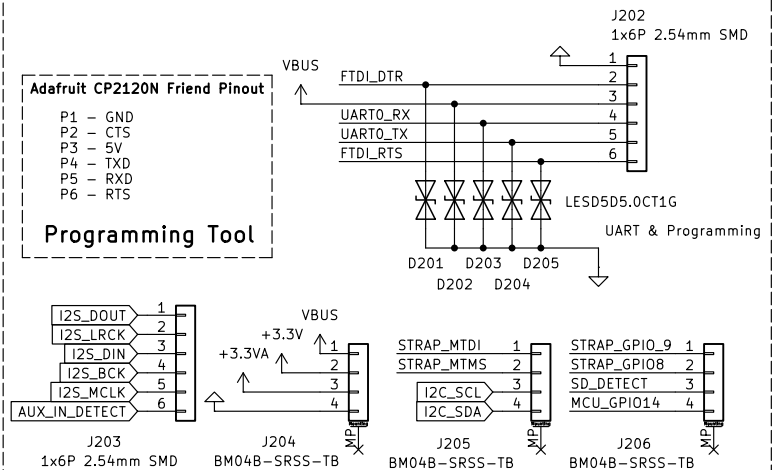
KiCad E.D.A. 8.0.8

**Rev: 1**

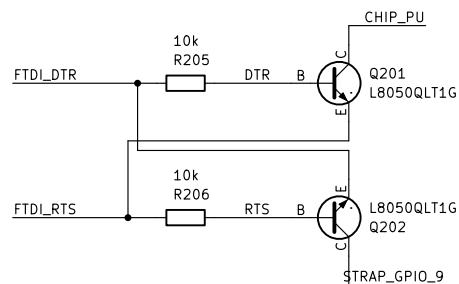
Id: 1/5



## Programming & Debug Headers

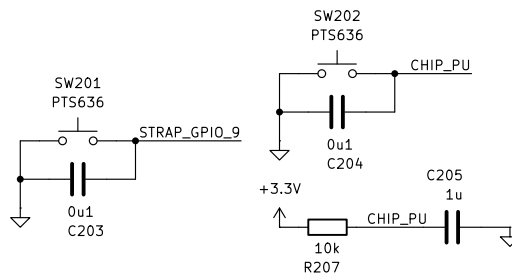


## Auto-Programming



implemented as per  
1. ESP32-C3-DevKitM-1 Schematic Diagram Rev1.0

## Strapping & Programming



implemented as per  
1. ESP32-C6-DevKitM-1 Schematic Diagram Rev1.0

Upgraded debug ports to JST SH Series  
Switches uSD from SPI to SDIO  
Replaced ESP32 C3 MINI w. ESP32 C6 MINI  
**BUCHAREST APPLIED STEAM MUSEUM**

Sheet: /MCU/  
File: MCU.kicad\_sch

**Title: BASM SOUNCARD DEV V0**

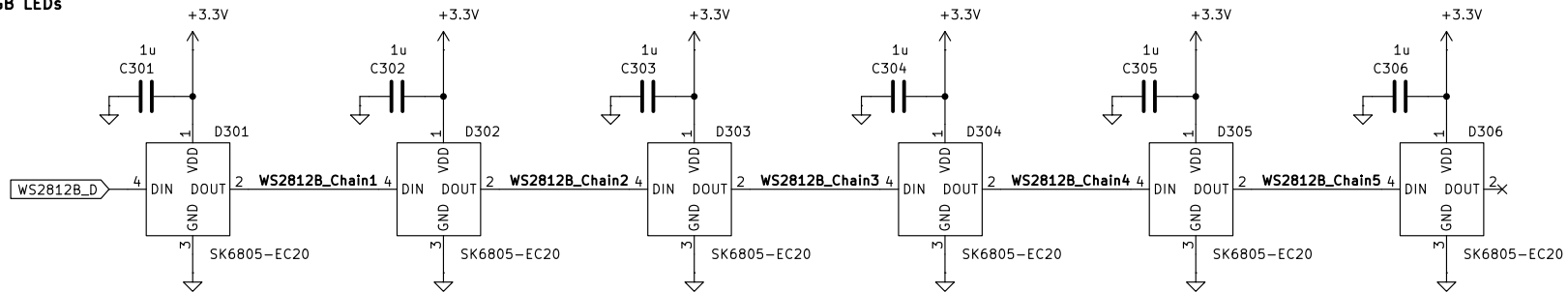
Size: A4 Date: 2025-04-29

KiCad E.D.A. 8.0.8

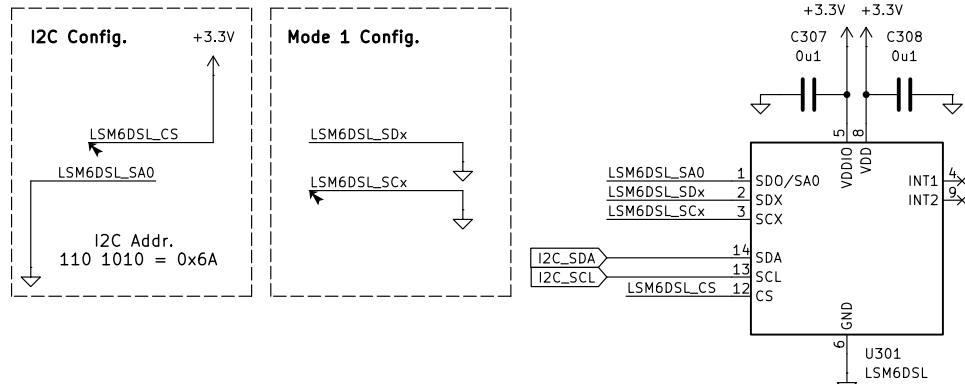
**Rev: 1**

Id: 2/5

## RGB LEDs

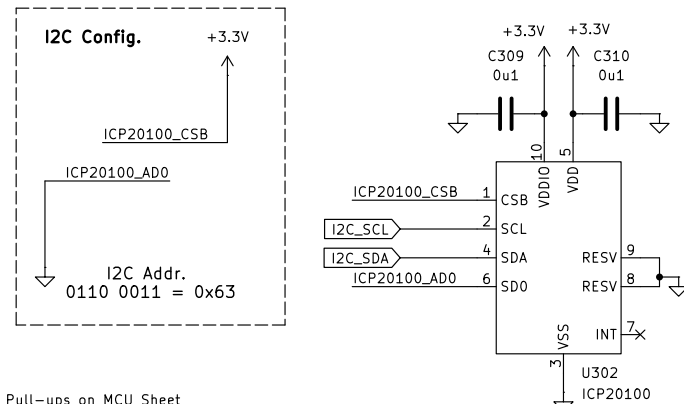


## 6-DoF IMU



I2C Pull-ups on MCU Sheet  
CS tied HI for I2C (App. Note 6.1)  
LSM6DSL Connections as per. Application Hints Mode 1 (App. Note 7.1)

## Barometric Sensor



I2C Pull-ups on MCU Sheet  
CSB tied HI for I2C (App. Note 4)  
ICP20100 Connections as per. Application Notes

Changed RGB LED to SK6805-EC20  
**BUCHAREST APPLIED STEAM MUSEUM**

Sheet: /sense\_feedback/  
File: sense\_feedback.kicad\_sch

**Title: BASM SOUND CARD DEV V0**

Size: A4 Date: 2025-04-29

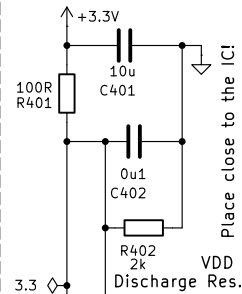
KiCad E.D.A. 8.0.8

**Rev: 1**

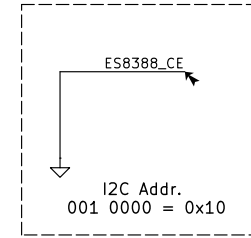
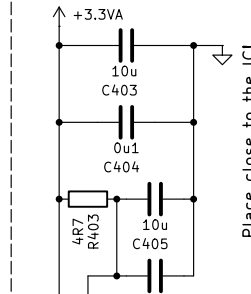
Id: 3/5

## ES8388 Audio CODEC

### [DIGITAL] Power Rail Decoupling

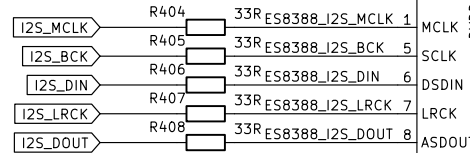


### [ANALOG] Power Rail Decoupling



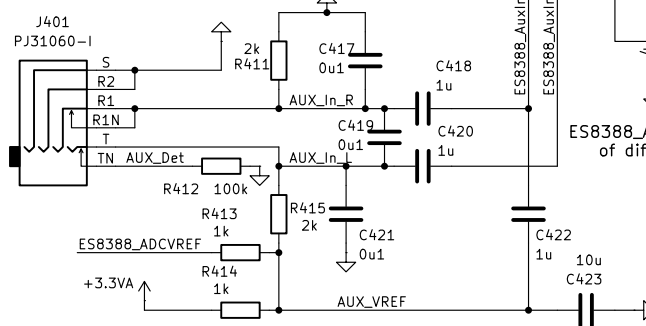
1. I2C Pull-ups at MCU
2. RC circ. to avoid R/W errors (see. LyraT Schematic)

ES8388 requires externally supplied MCLK

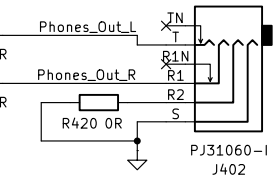


C415&416 added to terminate unused audio inputs

### AUX IN



### PHONES OUT



C424&425; R418&419 Implemented as per. ES8388 Data.  
R418&419 replacable for increased resistance / decreased capacitance

implemented as per  
1. ESP32 LyraT V4.2 Schematic Diagram by ESPRESSIF  
2. ES8388 Datasheet by Everest Semis

Connected unused CODEC inputs to GND via caps.  
Added an Aux-Insert circuit  
Replaced TRS Audio Jack w. TRRS Jacks w. NC contacts  
**BUCHAREST APPLIED STEAM MUSEUM**

Sheet: /Audio CODEC/  
File: codec.kicad\_sch

**Title: BASM SOUNDCARD DEV V0**

Size: A4  
KiCad E.D.A. 8.0.8

Date:  
Rev: 1  
Id: 4/5