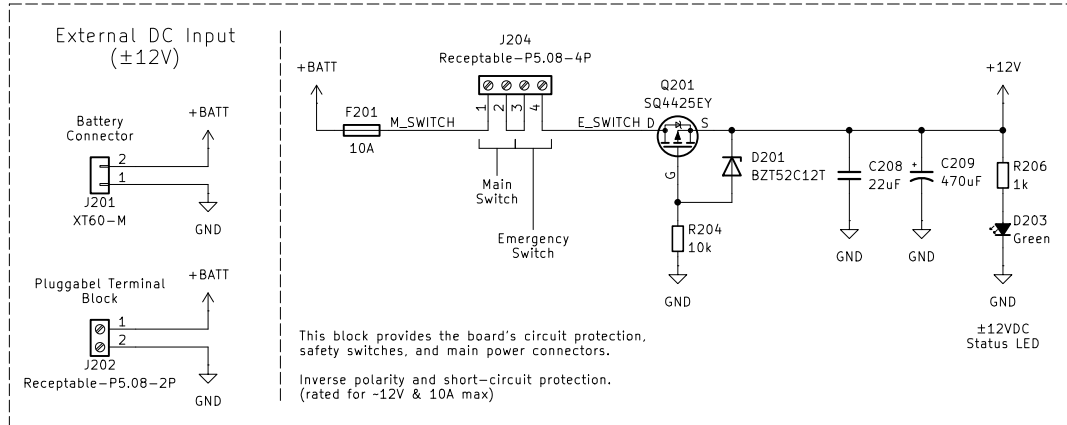
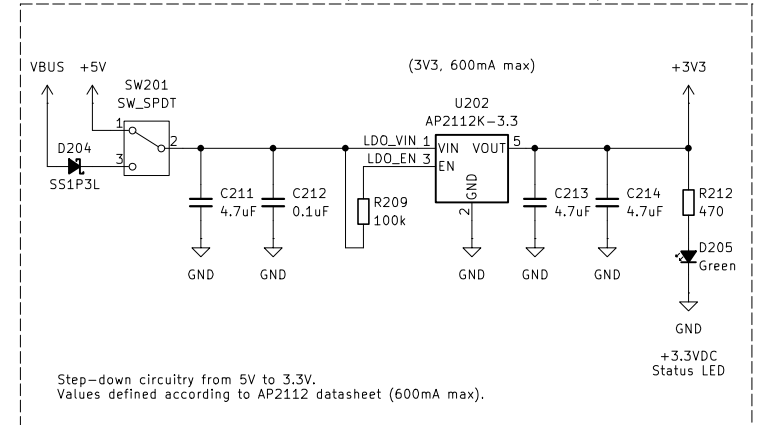


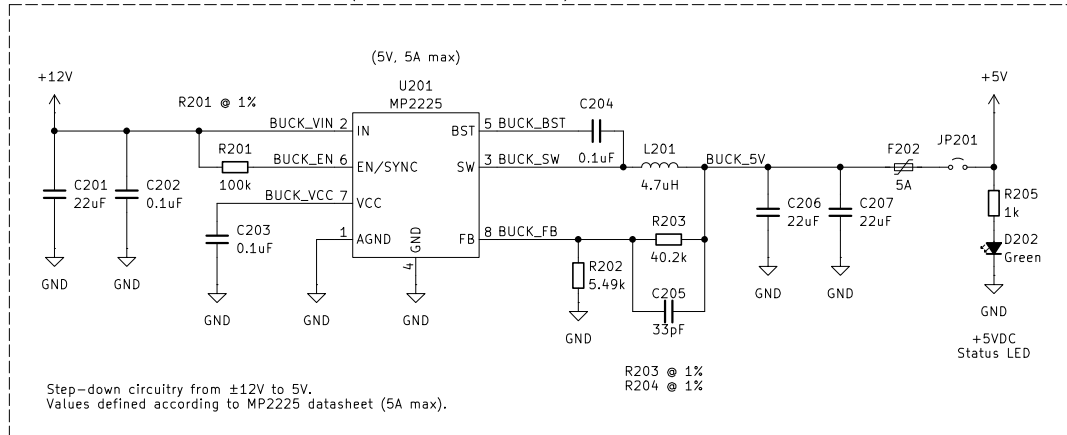
## Circuit Protection



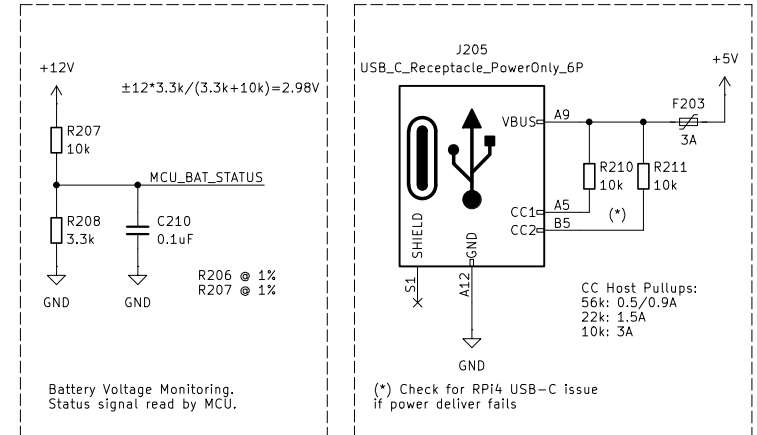
## LDO Regulator (3.3V Output)



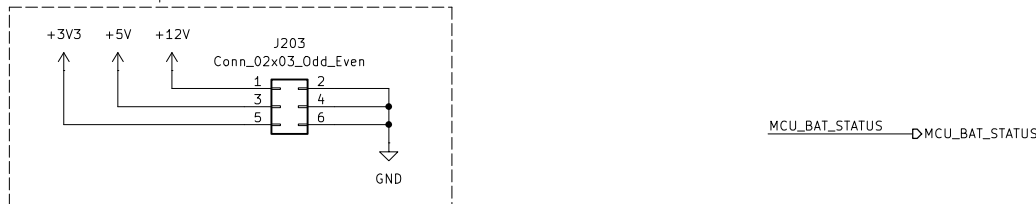
## Buck Converter (5V Output)



## Battery Status RPi Power Supply



## DC Output Header



Designed by: Manuel Lagarto

**Lizard Electronics**

Sheet: /Power\_Supply/

File: Power\_Supply.kicad\_sch

**Title: LizardBot 1 Control Board: Power Supply**

Size: A4

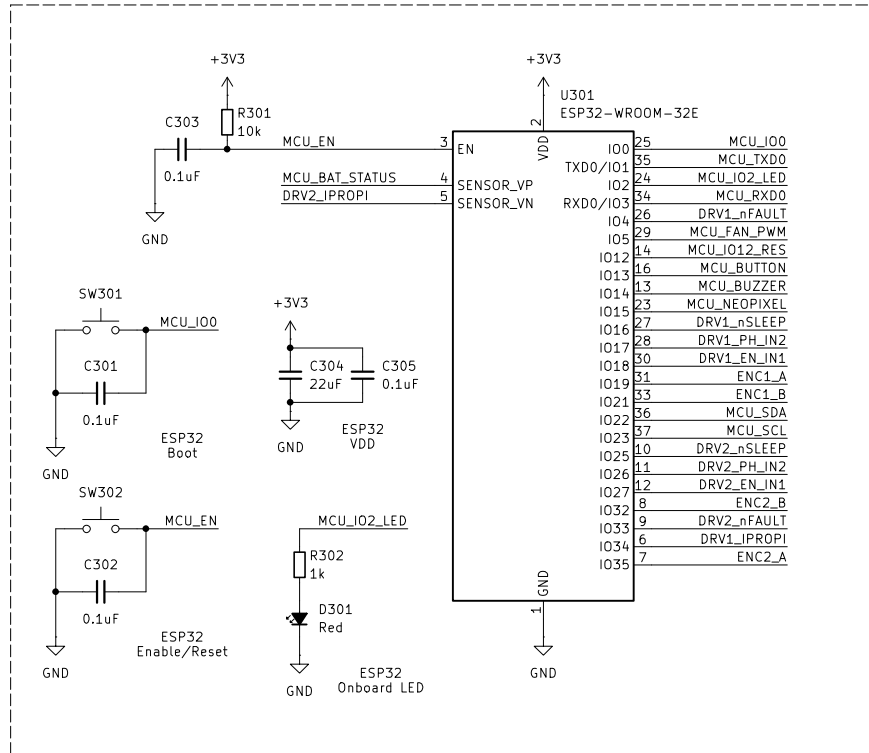
Date: 2024-06-10

Rev: v1.0.0

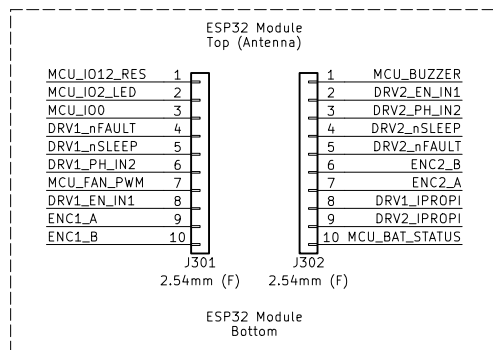
KiCad E.D.A. 8.0.1

Id: 2/6

## ESP32-WROOM-32E Module

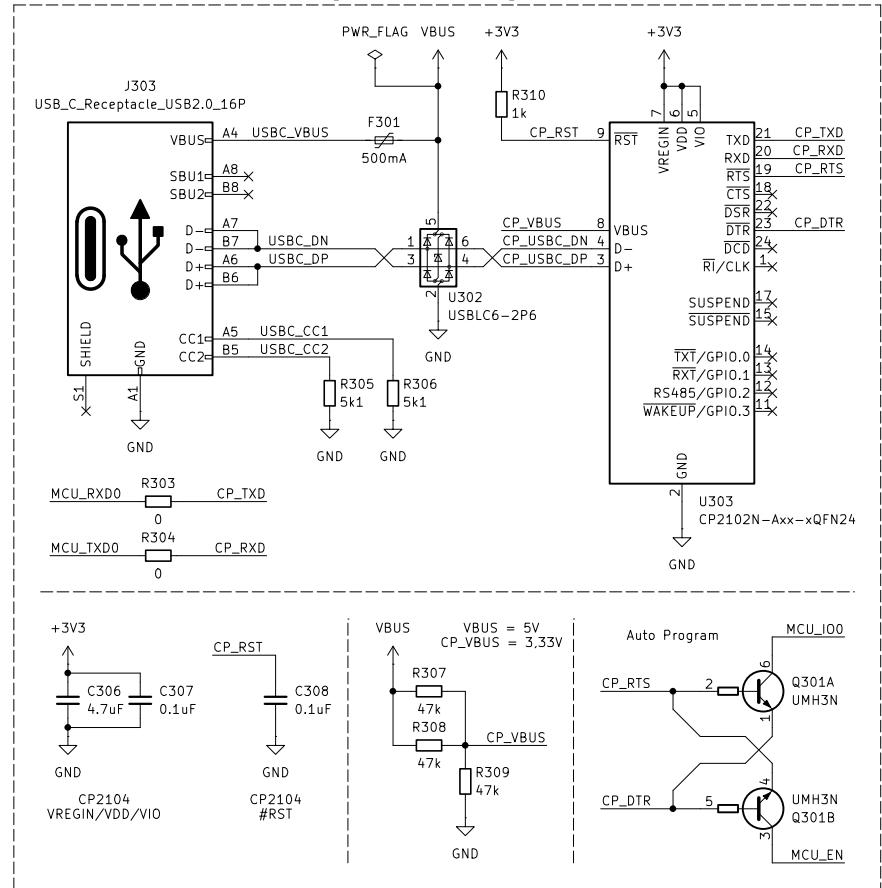


## GPIO Headers



MCU_RXD0	MCU_RXD0
MCU_TXD0	MCU_TXD0
MCU_SDA	MCU_SDA
MCU_SCL	MCU_SCL
MCU_BAT_STATUS	MCU_BAT_STATUS
MCU_BUTTON	MCU_BUTTON
MCU_BUZZER	MCU_BUZZER
MCU_FAN_PWM	MCU_FAN_PWM
MCU_NEOPixel	MCU_NEOPixel
DRV1_EN_IN1	DRV1_EN_IN1
DRV1_PH_IN2	DRV1_PH_IN2
DRV1_nSLEEP	DRV1_nSLEEP
DRV1_nFAULT	DRV1_nFAULT
DRV1_IPROPI	DRV1_IPROPI
ENC1_A	ENC1_A
ENC1_B	ENC1_B
DRV2_EN_IN1	DRV2_EN_IN1
DRV2_PH_IN2	DRV2_PH_IN2
DRV2_nSLEEP	DRV2_nSLEEP
DRV2_nFAULT	DRV2_nFAULT
DRV2_IPROPI	DRV2_IPROPI
ENC2_A	ENC2_A
ENC2_B	ENC2_B

## USB-UART/Programming Interface



Designed by: Manuel Lagarto

**Lizard Electronics**

Sheet: /MCU/

File: MCU.kicad\_sch

**Title: LizardBot 1 Control Board: MCU**

Size: A4

Date: 2024-06-26

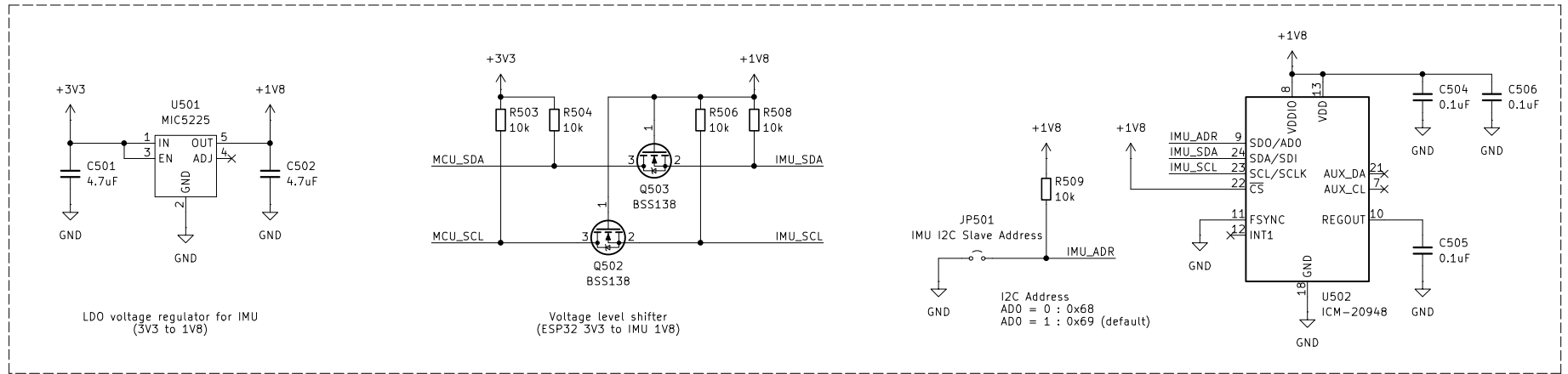
Rev: v1.0.0

KiCad E.D.A. 8.0.1

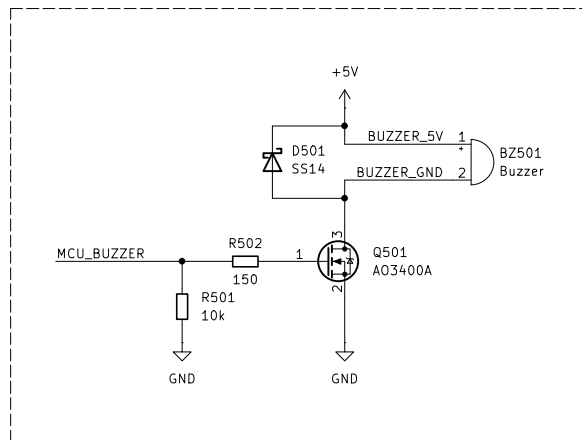
Id: 1/6



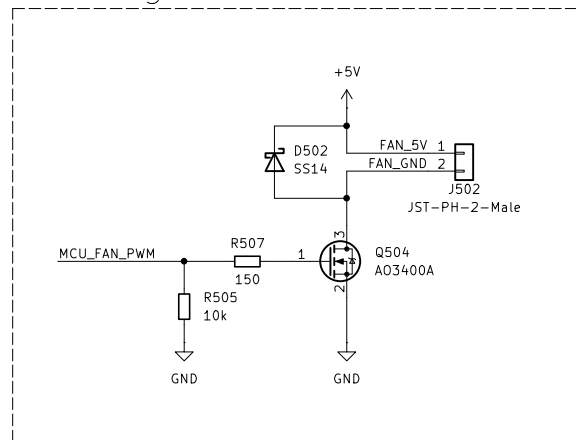
## IMU Circuit



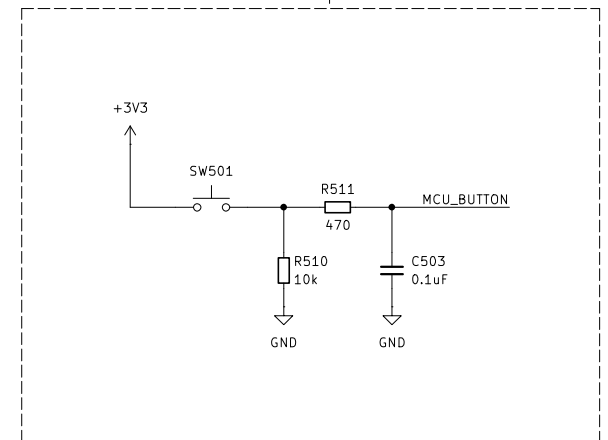
## Buzzer Driver



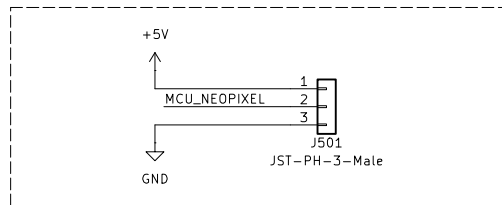
## Cooling Fan Driver



## User Button Input



## NeoPixel Connector



MCU\_SDA → MCU\_SDA  
 MCU\_SCL → MCU\_SCL  
 MCU\_BUTTON → MCU\_BUTTON  
 MCU\_BUZZER → MCU\_BUZZER  
 MCU\_FAN\_PWM → MCU\_FAN\_PWM  
 MCU\_NEOPIXEL → MCU\_NEOPIXEL

Designed by: Manuel Lagarto

**Lizard Electronics**

Sheet: /Peripherals/

File: Peripherals.kicad\_sch

**Title: LizardBot 1 Control Board: Peripherals**

Size: A4

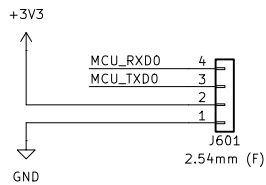
Date: 2024-07-03

Rev: v1.0.0

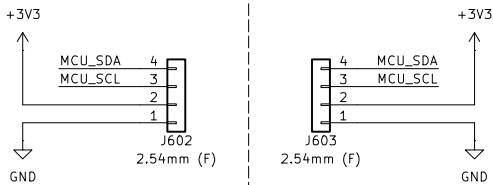
KiCad E.D.A. 8.0.1

Id: 1/6

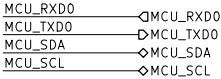
UART Connector



I2C & OLED Connector



(!) Review signal order at PCB design (!)



Designed by: Manuel Lagarto

**Lizard Electronics**

Sheet: /Communication\_Interfaces/

File: Communication\_Interfaces.kicad\_sch

**Title: LizardBot 1 Control Board: Communication Interfaces**

Size: A4

Date: 2024-07-05

Rev: v1.0.0

KiCad E.D.A. 8.0.1

Id: 1/6