

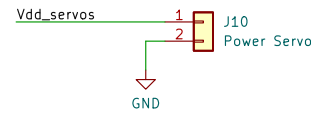
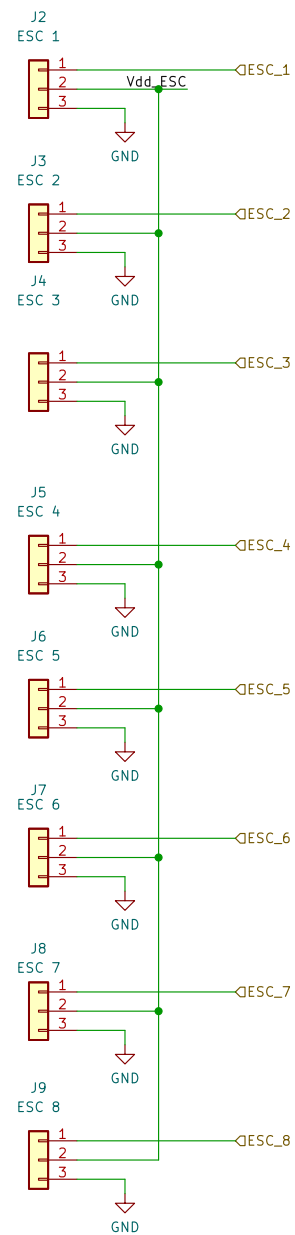
Sheet: /Debug/  
File: debug.kicad\_sch

**Title:**

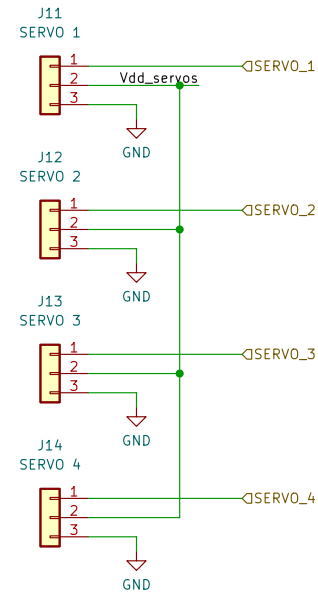
Size: A4 Date:  
KiCad E.D.A. kicad 6.0.11-2627ca5db0-126-ubuntu20.04.1

Rev:  
Id: 5/12

## Headers Dupont ESC



## Headers Dupont Servos



Sheet: /Motores\_servos\_PWM/  
File: motores\_servos\_pwm.kicad\_sch

**Title:**

Size: A4

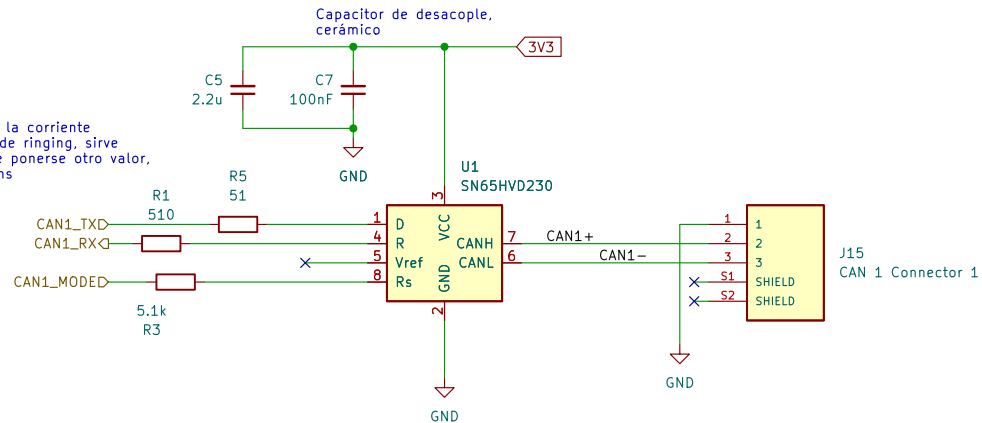
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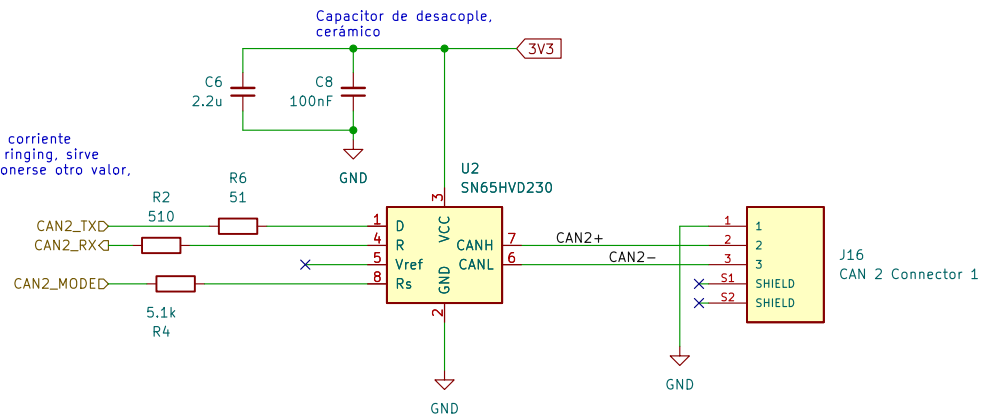
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Resistores para limitar la corriente en los pines. En caso de ringing, sirve para compensar. Puede ponerse otro valor, o un resistor de 0 Ohms



Resistores para limitar la corriente en los pines. En caso de ringing, sirve para compensar. Puede ponerse otro valor, o un resistor de 0 Ohms



Sheet: /Interfaz\_CAN/  
File: interfaz\_can.kicad\_sch

**Title:**

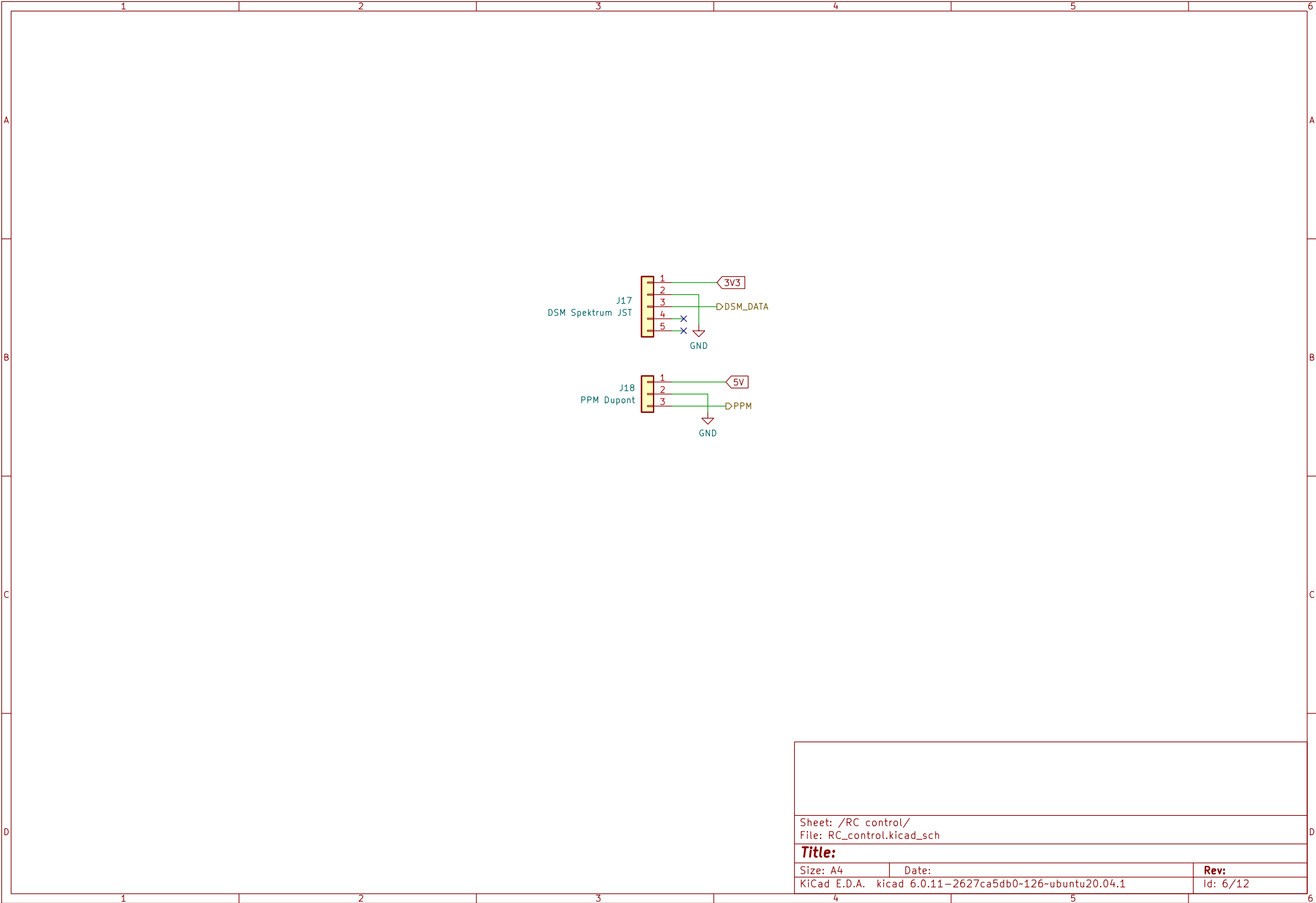
Size: A4

Date:

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Este capacitor se agrega para filtrado de ruido de muy alta frecuencia, al igual que el de entrada.

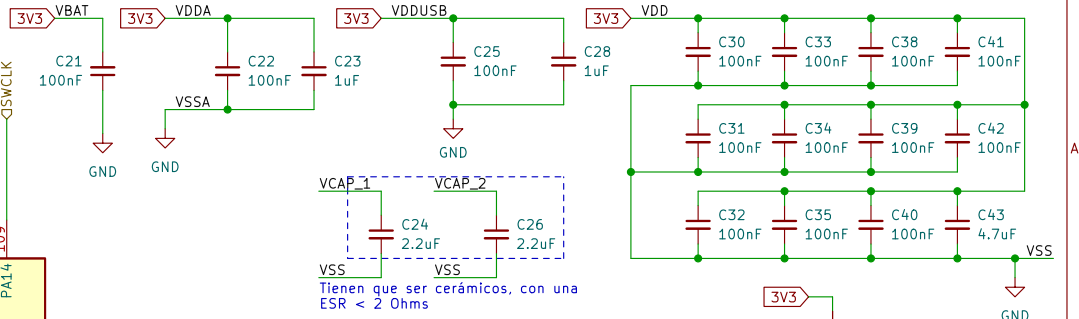
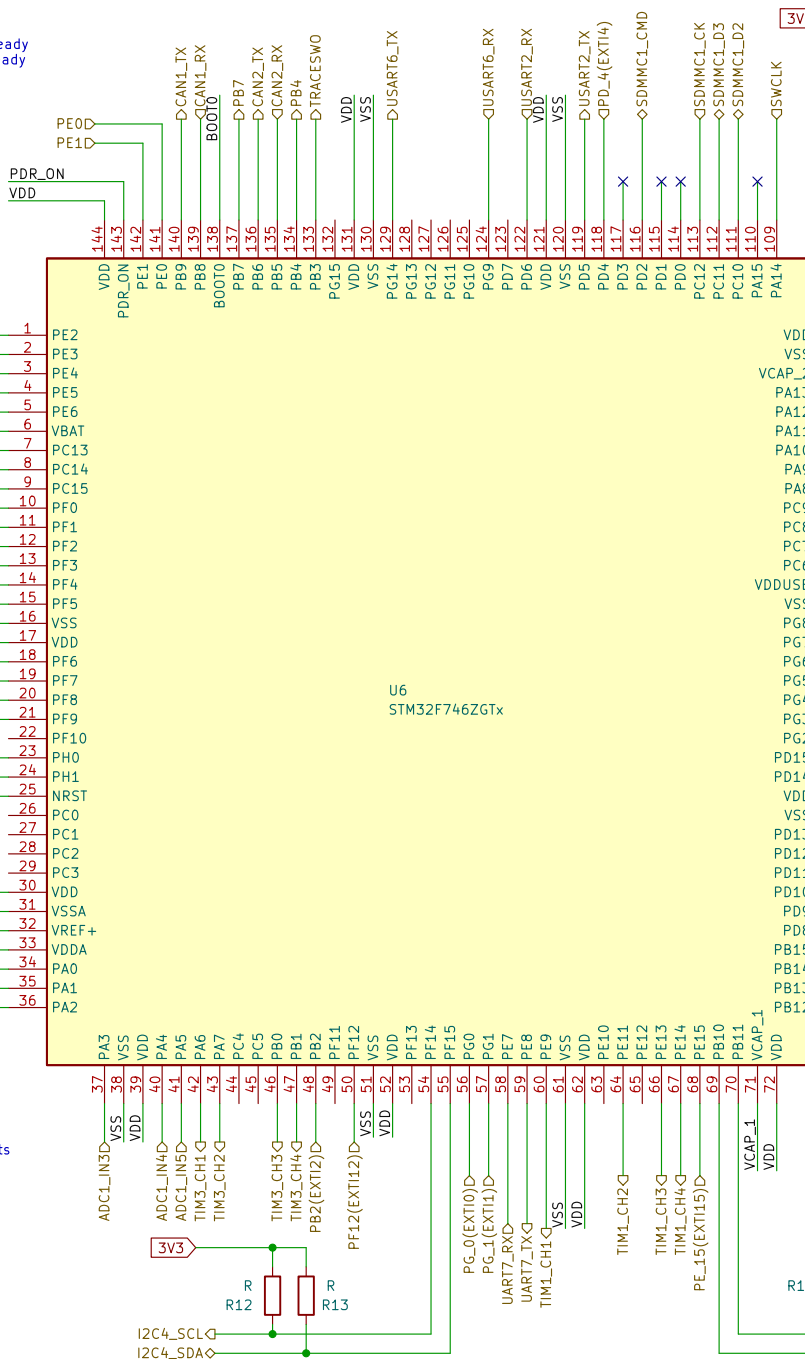
Id: 7/12



External Interrupt pins:  
 - EXTI0: not assigned  
 - EXTI1: PG1, Mag data ready  
 - EXTI2: PG2, IMU data ready  
 - EXTI3: not assigned  
 - EXTI4: PD4  
 - EXTI5: PF5  
 - EXTI6: not assigned  
 - EXTI7: not assigned  
 - EXTI8: not assigned  
 - EXTI9: not assigned  
 - EXTI10: PD10  
 - EXTI11: not assigned  
 - EXTI12: not assigned  
 - EXTI13: not assigned  
 - EXTI14: not assigned  
 - EXTI15: PE15

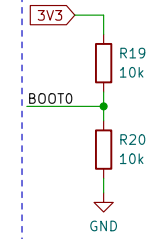
PE2D 1 PE2  
 PE3D 2 PE3  
 PE4D 3 PE4  
 PE5D 4 PE5  
 PE6D 5 PE6  
 VBAT 6 VBAT  
 OSC32\_IN 8 PC13  
 OSC32\_OUT 9 PC15  
 PF0D 10 PF0  
 PF1D 11 PF1  
 PF2D 12 PF2  
 PF3D 13 PF3  
 PF4D 14 PF4  
 PF\_5(EXTI5)D 15 PF5  
 VSS 16 VSS  
 VDD 17 VDD  
 SPI5\_CSQ 18 PF6  
 SPI5\_SCKQ 19 PF7  
 SPI5\_MISO 20 PF8  
 SPI5\_MOSI 21 PF9  
 OSC\_IN 23 PF10  
 OSC\_OUT 24 PH0  
 NRST 25 PH1  
 NRST 26 NRST  
 PC0 27 PC0  
 PC1 28 PC1  
 PC2 29 PC2  
 PC3 30 PC3  
 VDD 30 VDD  
 VSSA 31 VSSA  
 VREF+ 32 VREF+  
 VDDA 33 VDDA  
 UART4\_TXQ 34 PA0  
 UART4\_RXD 35 PA1  
 TIM2\_CH3D 36 PA2

Timers:  
 Advanced-control timers:  
 - Timer 1: ESCs  
 - Timer 8: not assigned  
 General purpose timers:  
 - Timer 2: PPS(GPS), 32 bits  
 - Timer 5: not assigned  
 - Timer 3: ESCs  
 - Timer 4: servos  
 - Timer 9: PPM  
 - Timer 10: not assigned  
 - Timer 11: not assigned  
 - Timer 12: not assigned  
 - Timer 13: not assigned  
 - Timer 14: not assigned  
 Basic timers:  
 - Timer 6: not assigned  
 - Timer 7: not assigned

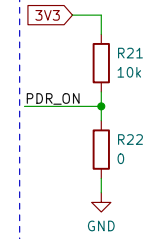


Tienen que ser cerámicos, con una ESR < 2 Ohms

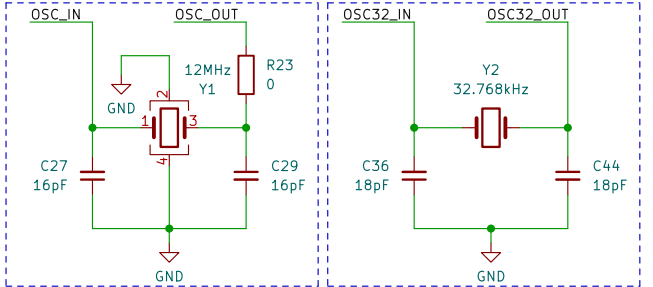
Soldar solamente 1 de los resistores



Soldar solamente 1 de los resistores

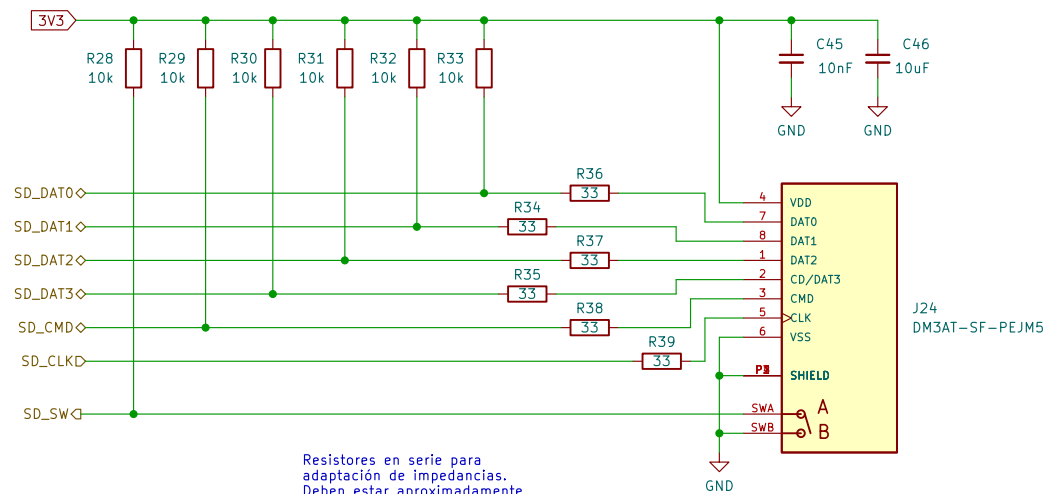


Se conectan ambos pines 2 y 4 a GND. Esto actua como un blindaje de un cable, permitiendo que circule corriente por el case del cristal.



Sheet: /MCU/ File: MCU.kicad_sch		
<b>Title:</b>		
Size: A4	Date:	Rev:
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Resistores en serie para adaptación de impedancias. Deben estar aproximadamente en el medio del camino de pista para lograr su función.

Para los capacitores de 10nF, un modelo acorde es el siguiente:  
<https://ar.mouser.com/ProductDetail/KEMET/C0402C103M4RACTU?qs=DBJr%252BvBUJU7MjxBP34He0g%3D%3D>  
 Entre 50 MHz y 100 MHz, ocurre la resonancia, por lo que la impedancia es muy baja en ese rango.

Sheet: /Micro SD/  
 File: micro\_sd.kicad\_sch

**Title:**

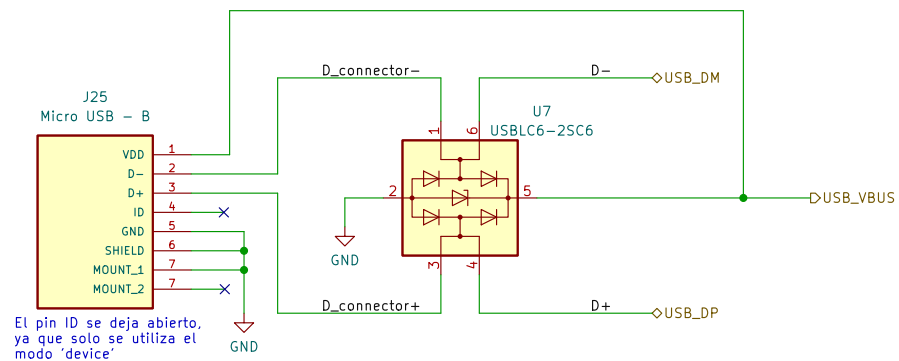
Size: A4

Date:

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Sheet: /USB/  
File: usb.kicad\_sch

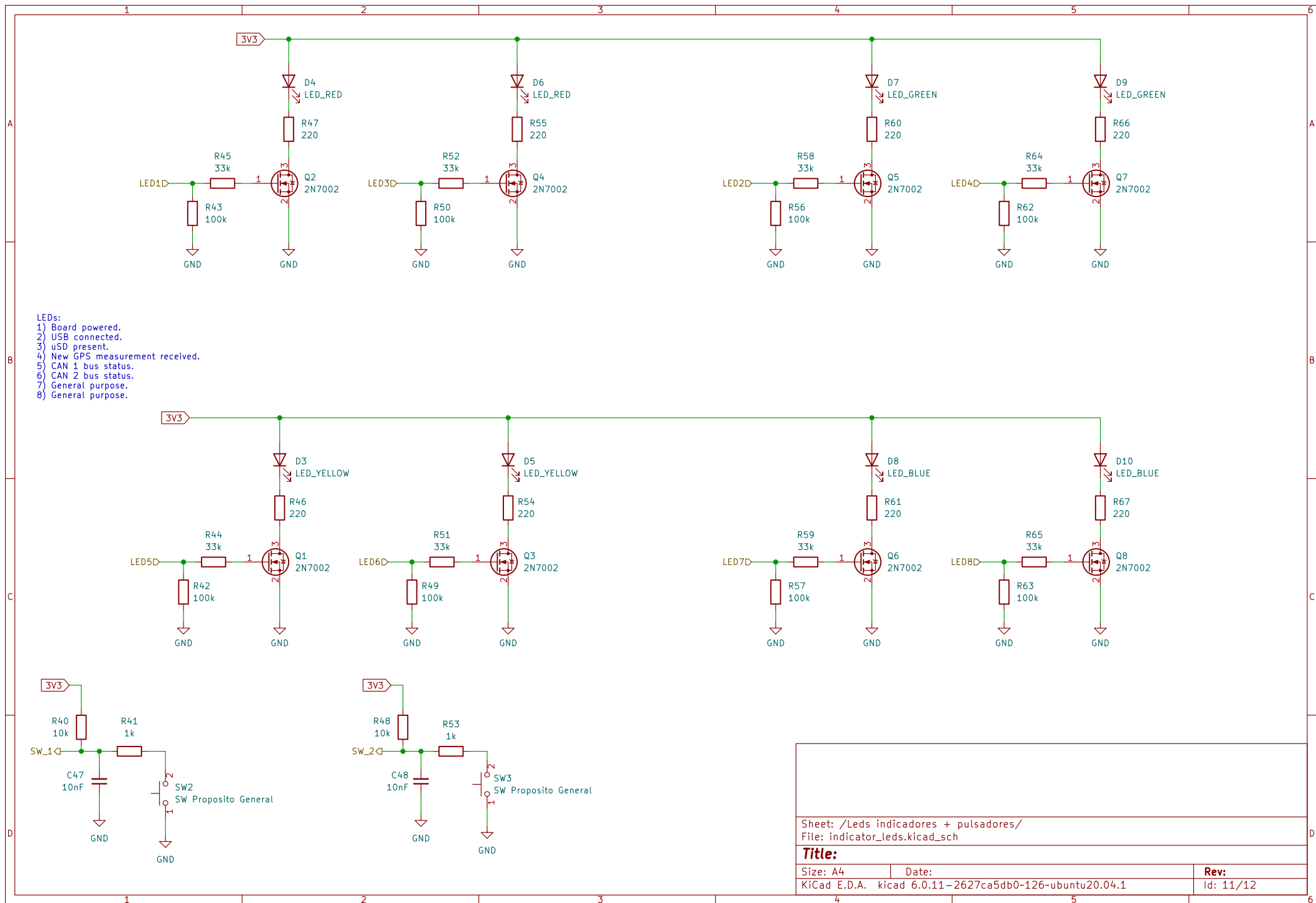
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Size: A4  
KiCad E.D.A. kicad 6.0.11-2627ca5db0-126-ubuntu20.04.1

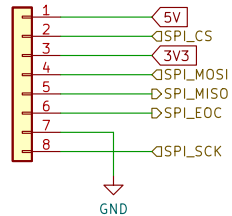
Date:

Rev:

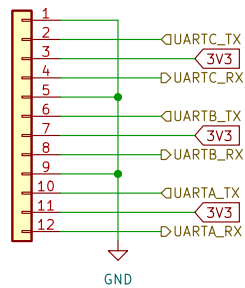
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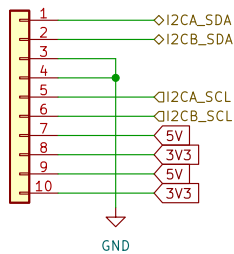
J27  
SPI externo



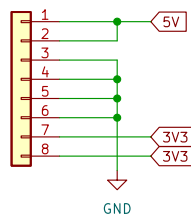
J29  
UARTs externo x 3



J26  
I2C externo x2



J28  
5V 3V3 x2



Sheet: /Conexiones\_extra/  
File: conexiones\_extra.kicad\_sch

**Title:**

Size: A4  
KiCad E.D.A. kicad 6.0.11-2627ca5db0-126-ubuntu20.04.1

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Rev:

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