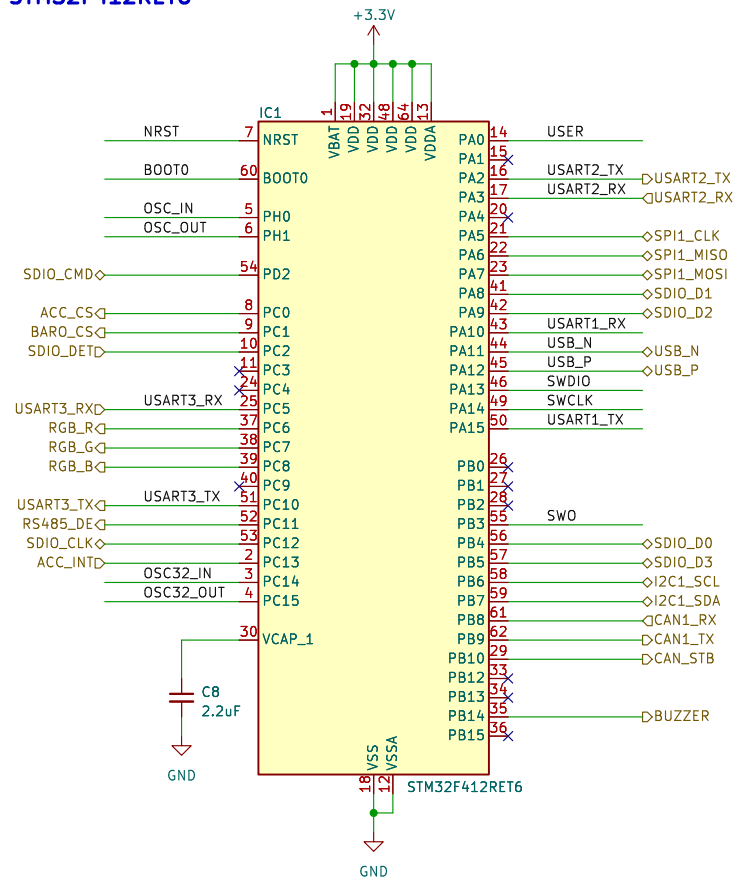
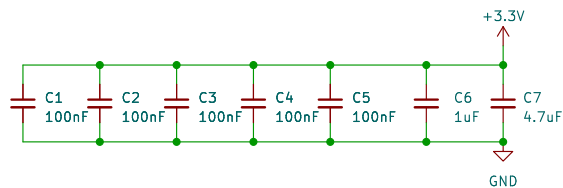


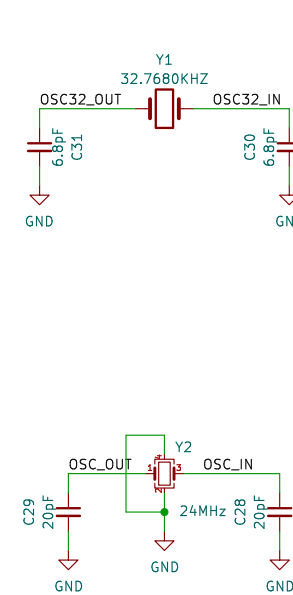
STM32F412RET6



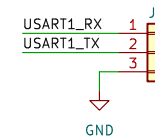
MCU DECOUPLING CAP'S



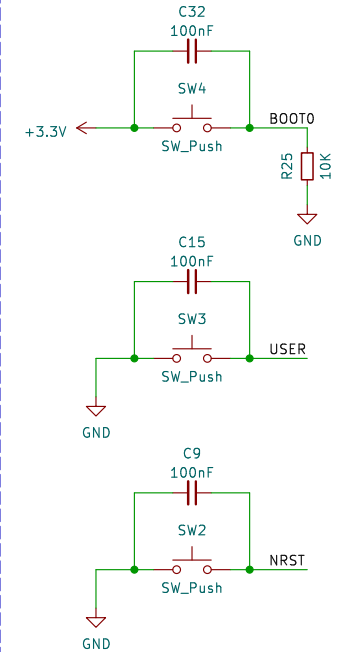
CRYSTALS



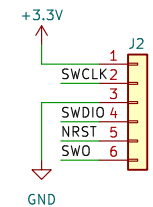
SHELL



BUTTONS



SWD



Sheet: /mcu/

File: mcu.kicad_sch

Title: Microcontroller

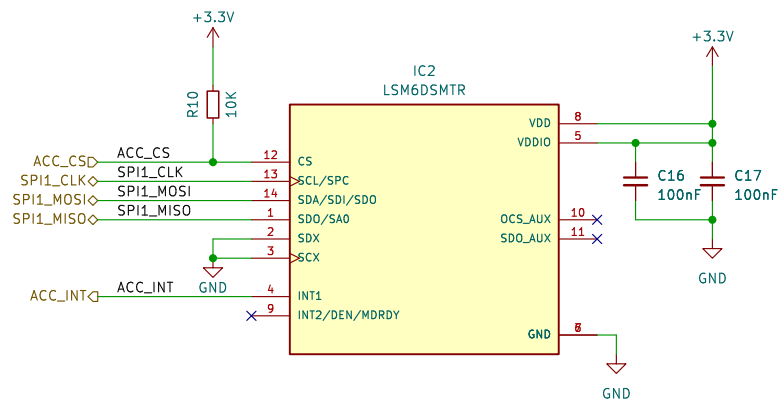
Size: A4 Date: 2023-05-22

KiCad E.D.A. kicad (7.0.0)

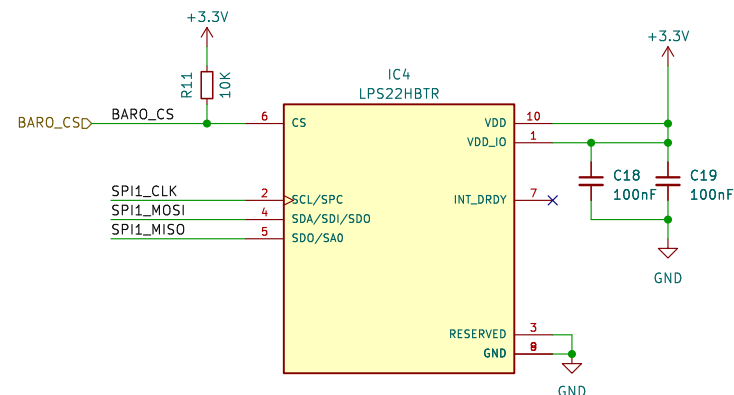
Rev: 1.0

Id: 2/8

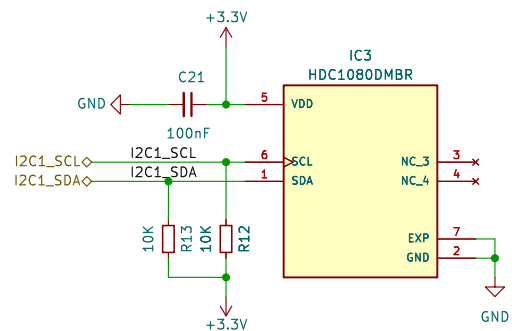
IMU SENSOR



PRESSURE SENSOR



TEMPERATURE & HUMIDITY SENSOR



Sheet: /sensors/
File: sensors.kicad_sch

Title: Sensors

Size: A4 Date: 2023-05-22

KiCad E.D.A. kicad (7.0.0)

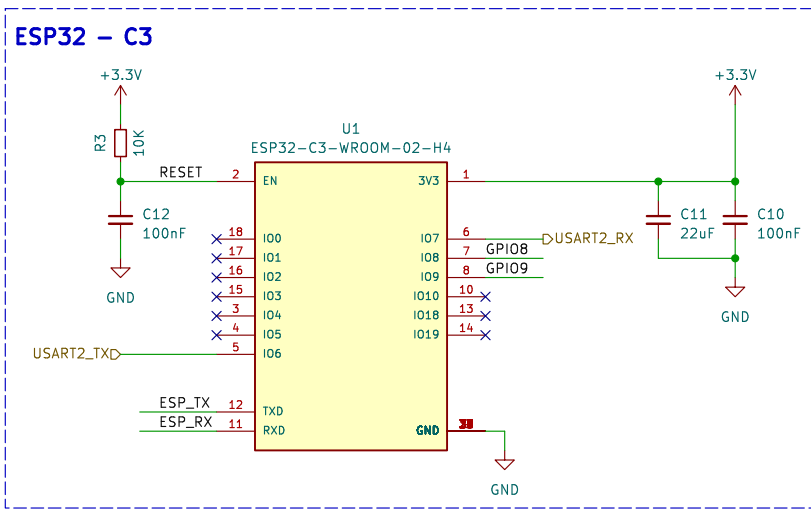
Rev: 1.0

Id: 3/8

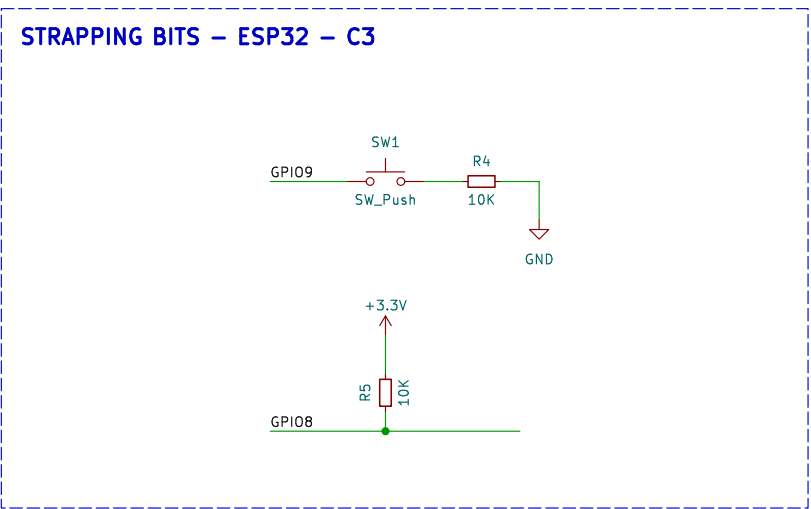
ESP32 – C3

The diagram shows the following connections for the ESP32-C3 module (U1):

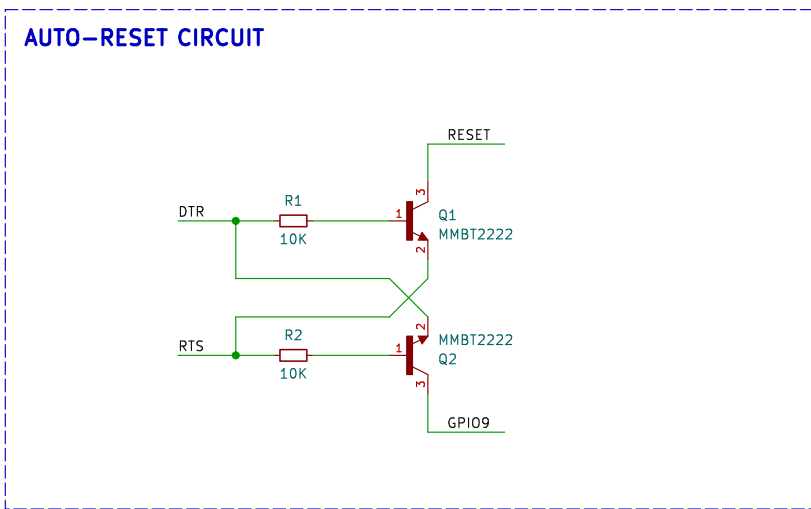
- Pin 2 (EN):** Connected to +3.3V via resistor R3 (10K) and to GND via capacitor C12 (100nF).
- Pin 1 (3V3):** Connected to +3.3V.
- Pin 6 (GPIO8):** Connected to USART2_RX.
- Pin 8 (GPIO9):** Connected to a green line.
- Pin 5 (IO6):** Connected to USART2_TX.
- Pin 12 (TXD):** Connected to ESP_TX.
- Pin 11 (RXD):** Connected to ESP_RX.
- Pin 39 (GND):** Connected to GND.
- Other pins:** Pins 18, 17, 16, 15, 3, 4, 10, 13, 14, and 19 are marked with an 'X' and are not connected.



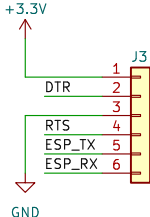
STRAPPING BITS – ESP32 – C3



AUTO-RESET CIRCUIT

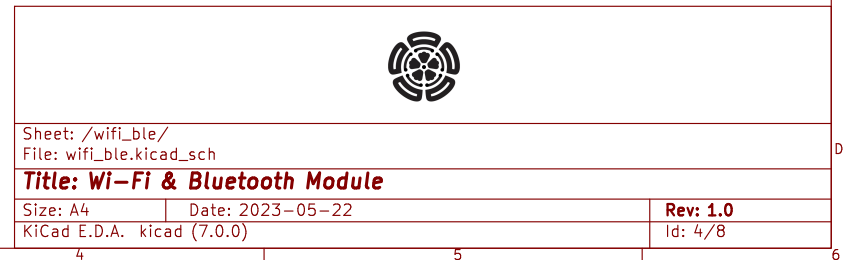
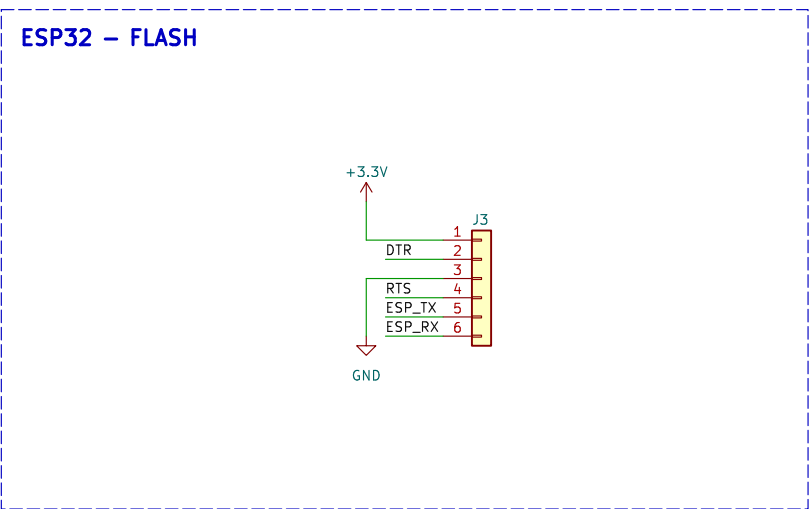



ESP32 – FLASH





The diagram shows the wiring for the ESP32 FLASH module. A 6-pin header labeled J3 is connected to a circuit. Pin 1 is connected to +3.3V, pin 2 to DTR, pin 3 to GND, pin 4 to RTS, pin 5 to ESP_TX, and pin 6 to ESP_RX.


Pin	Signal
1	+3.3V
2	DTR
3	GND
4	RTS
5	ESP_TX
6	ESP_RX





	
Sheet: /wifi_ble/ File: wifi_ble.kicad_sch	
Title: Wi-Fi & Bluetooth Module	
Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

	
Sheet: /wifi_ble/ File: wifi_ble.kicad_sch	
Title: Wi-Fi & Bluetooth Module	
Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

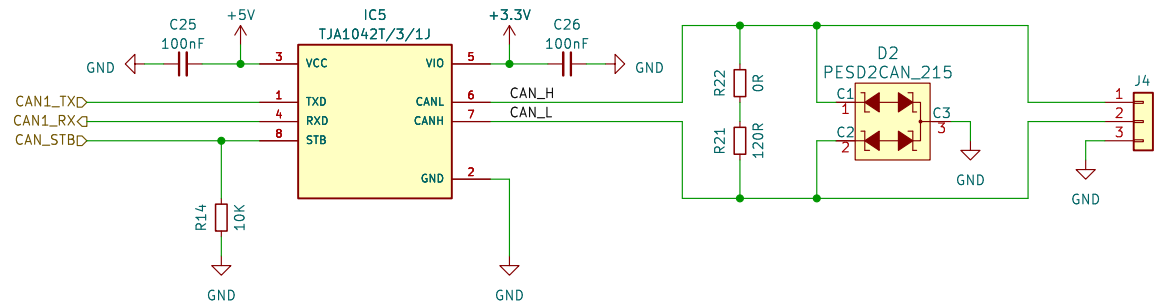
	
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Title: Wi-Fi & Bluetooth Module	
Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

	
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Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

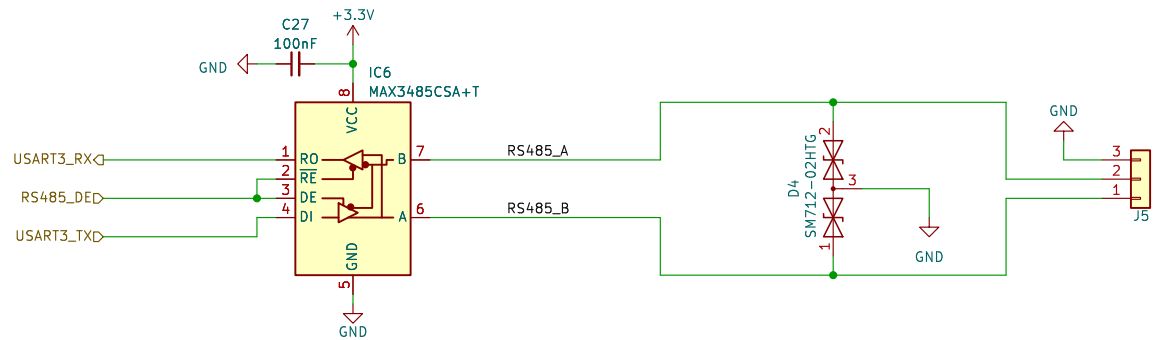
	
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Title: Wi-Fi & Bluetooth Module	
Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

	
Sheet: /wifi_ble/ File: wifi_ble.kicad_sch	
Title: Wi-Fi & Bluetooth Module	
Size: A4	Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)	Rev: 1.0 Id: 4/8

CAN INTERFACE



RS485 INTERFACE



Sheet: /comm/
File: comm.kicad_sch

Title: Serial Communication

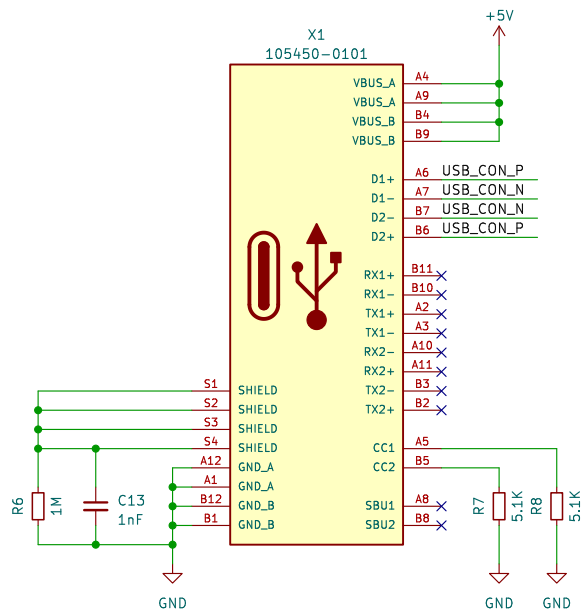
Size: A4 Date: 2023-05-22

KiCad E.D.A. kicad (7.0.0)

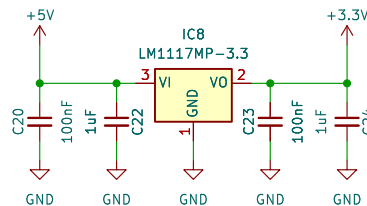
Rev: 1.0

Id: 5/8

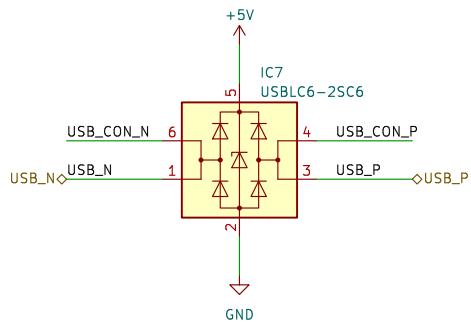
USB CONNECTOR



LDO 3.3V/0.8A



USB TVS

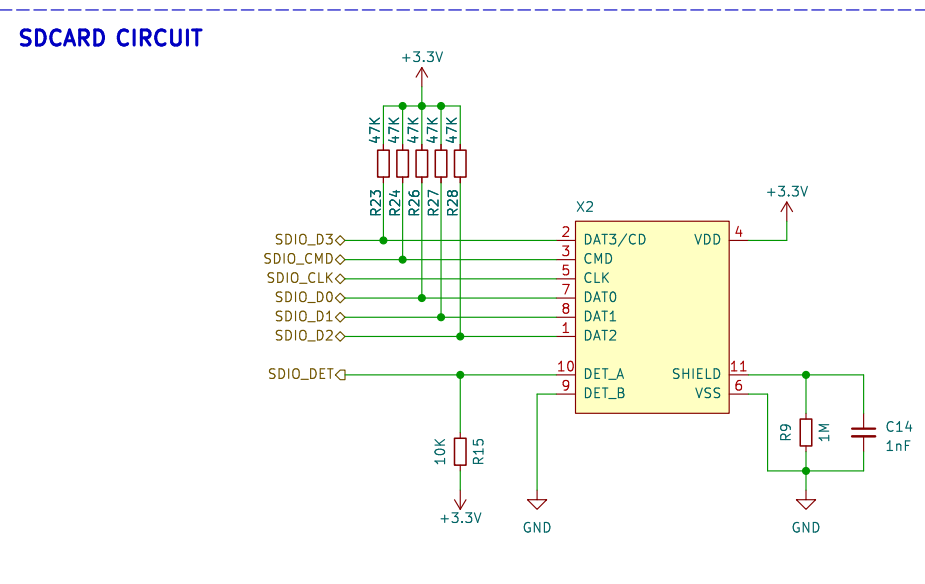


Sheet: /usb/
File: usb.kicad_sch

Title: USB

Size: A4 Date: 2023-05-22
KiCad E.D.A. kicad (7.0.0)

Rev: 1.0
Id: 6/8



Sheet: /sdcard/
File: sdcard.kicad_sch

Title: SDCard

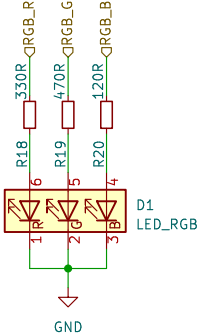
Size: A4 Date: 2023-05-22

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Rev: 1.0

Id: 7/8

STATUS LED



BUZZER

