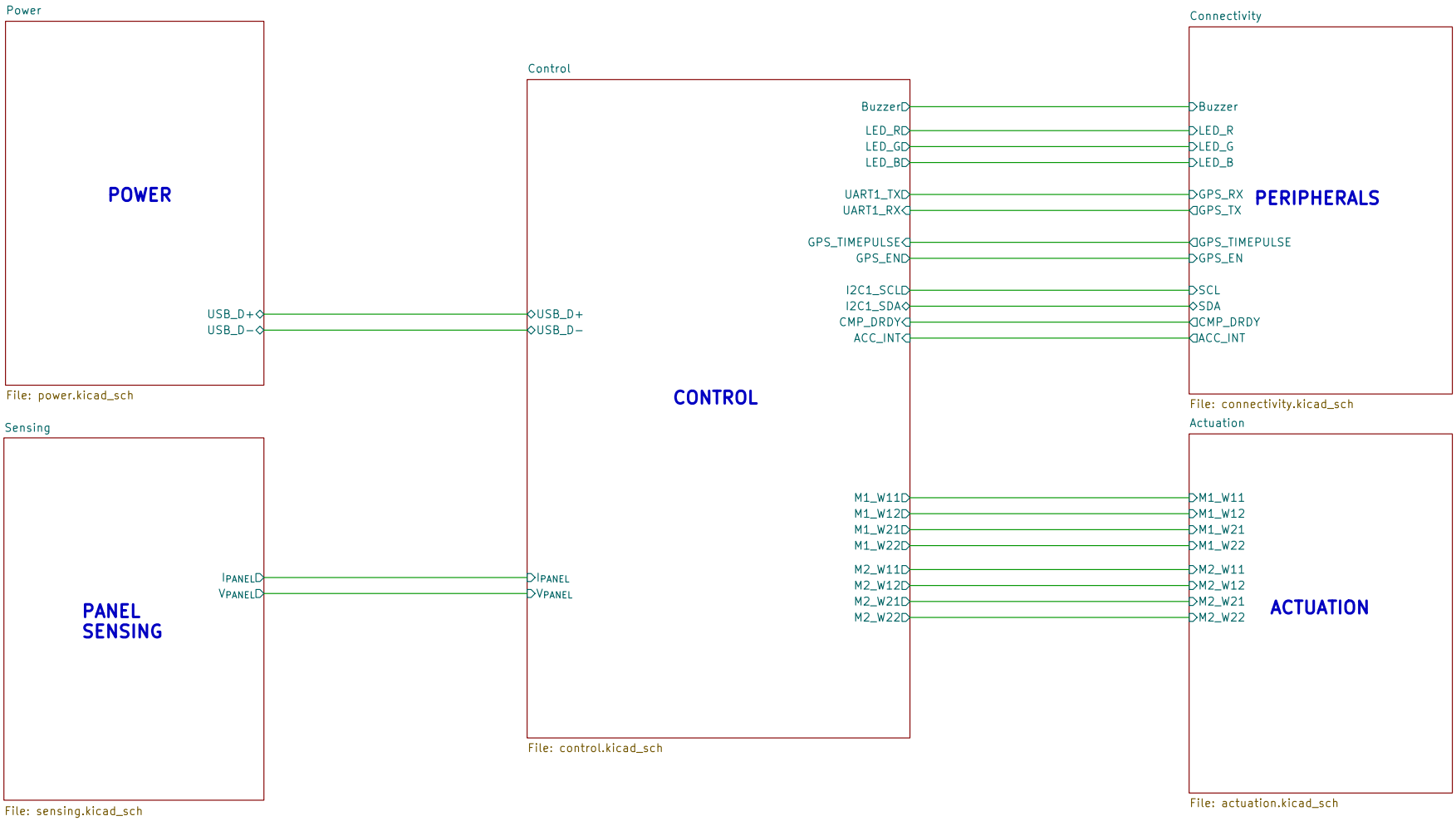



**Mechanical**

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

**Fiducials**

- FID1 Fiducial
- FID2 Fiducial
- FID3 Fiducial

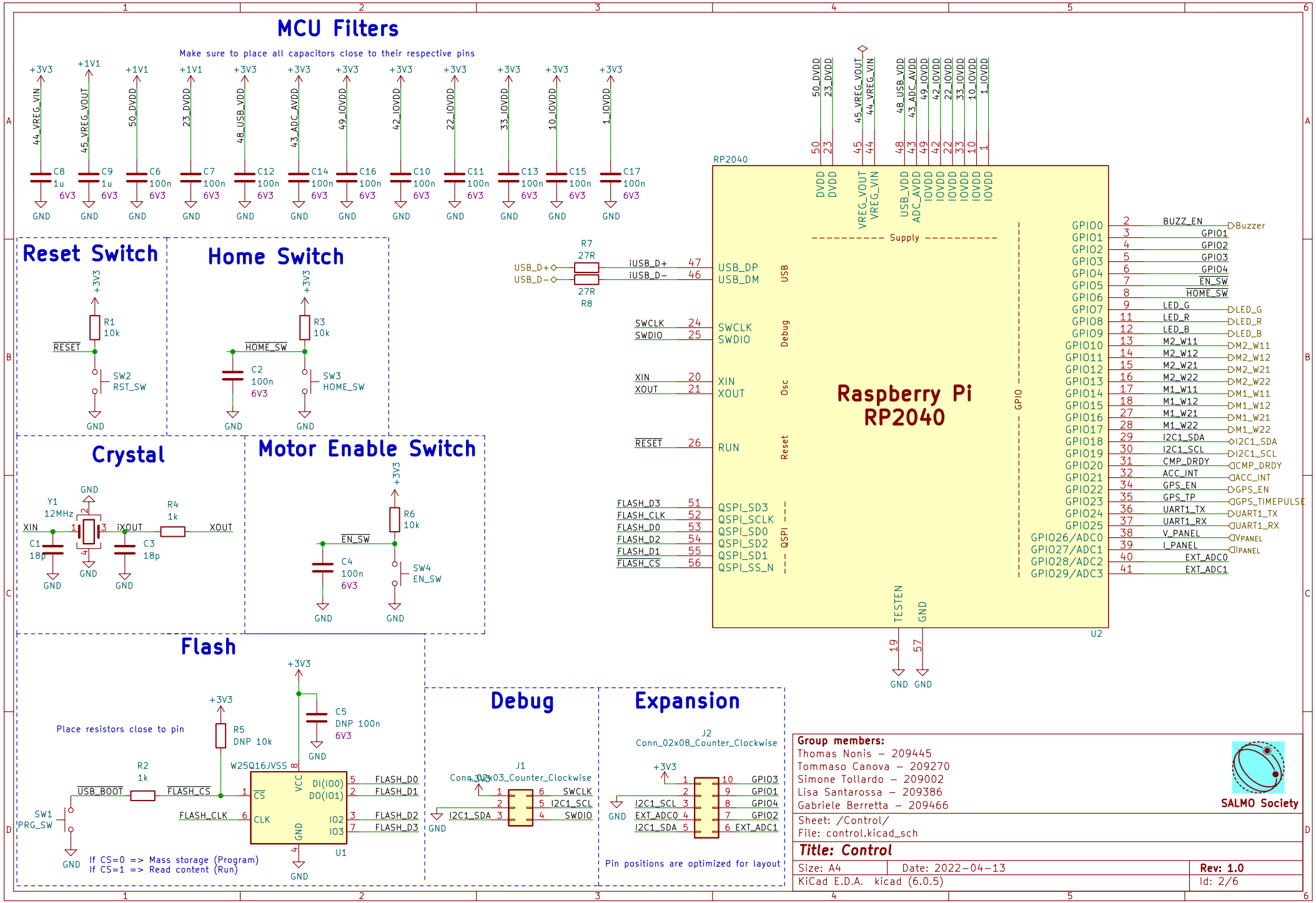

**Group members:**
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466

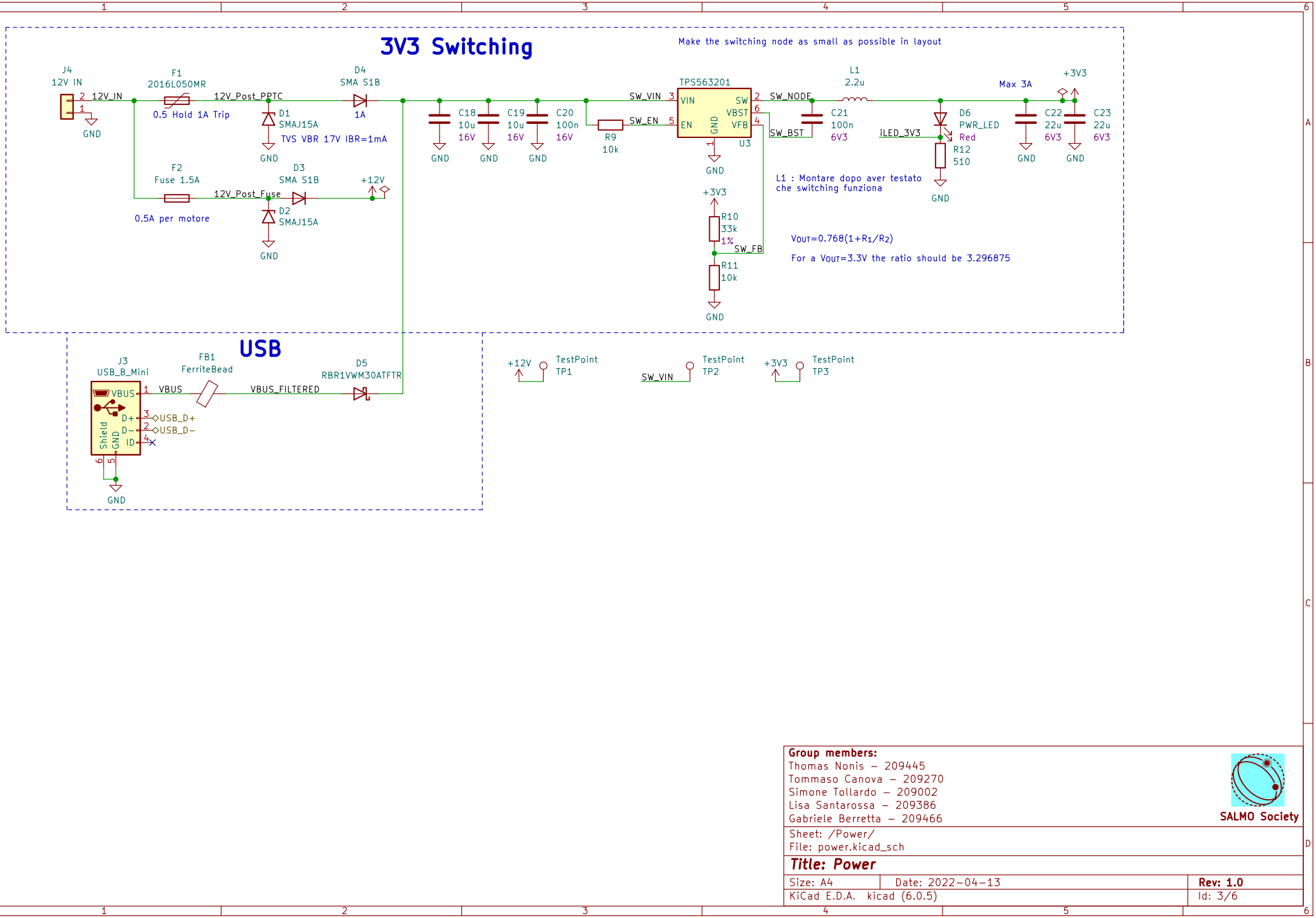

SALMO Society

Sheet: /
File: PPSE_2021.kicad_sch

***Title: Main***

| Size: A4 | Date: 2022-04-13 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.5) | | Id: 1/6 |


MCU Filters
Make sure to place all capacitors close to their respective pins
C8 1u 6V3
C9 1u 6V3
C6 100n 6V3
C7 100n 6V3
C12 100n 6V3
C14 100n 6V3
C16 100n 6V3
C10 100n 6V3
C11 100n 6V3
C13 100n 6V3
C15 100n 6V3
C17 100n 6V3
Reset Switch
R1 10k
SW2 RST_SW
Home Switch
R3 10k
C2 100n 6V3
SW3 HOME_SW
Crystal
Y1 12MHz
C1 18p
C3 18p
R4 1k
Motor Enable Switch
R6 10k
C4 100n 6V3
SW4 EN_SW
Flash
R5 DNP 10k
C5 DNP 100n 6V3
R2 1k
SW1 PRG_SW
W25Q16JVSS
U1
If CS=0 => Mass storage (Program)
If CS=1 => Read content (Run)
Debug
J1
Conn_02x03_Counter_Clockwise
Expansion
J2
Conn_02x08_Counter_Clockwise
Pin positions are optimized for layout
R7 27R
R8 27R
RP2040
Raspberry Pi RP2040
U2
Supply
USB
Debug
Osc
Reset
QSPI
GPIO
Buzzer
LED_G
LED_R
LED_B
I2C1_SDA
I2C1_SCL
GPS_EN
GPS_TP
GPS_TIMEPULSE
UART1_TX
UART1_RX
V_PANEL
I_PANEL
Group members:
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466
SALMO Society
Sheet: /Control/
File: control.kicad_sch
Title: Control
Size: A4
Date: 2022-04-13
Rev: 1.0
KiCad E.D.A. kicad (6.0.5)
Id: 2/6



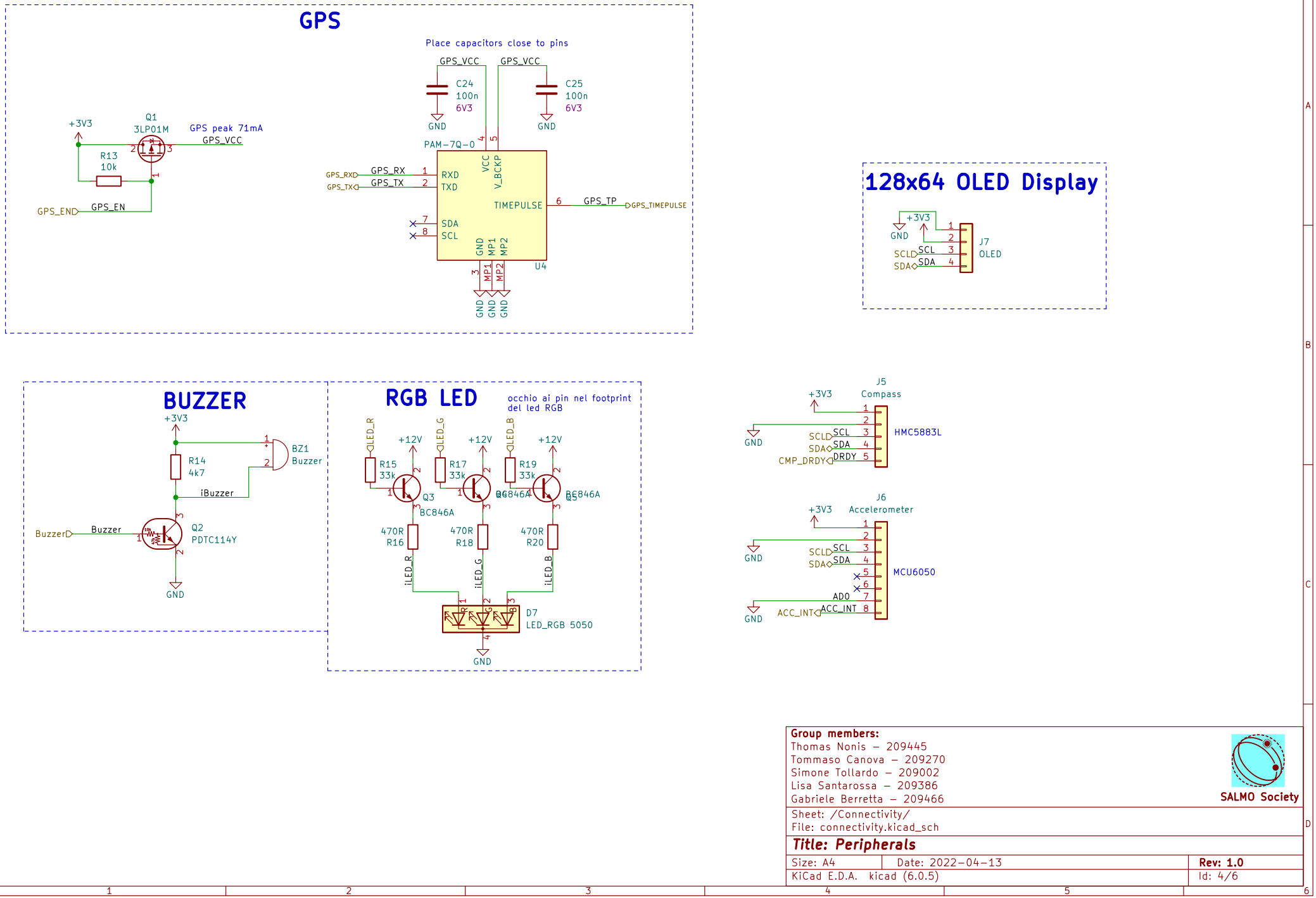

**Group members:**
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466

SALMO Society

Sheet: /Power/
File: power.kicad_sch

**Title: Power**

| Size: A4 | Date: 2022-04-13 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.5) | | Id: 3/6 |




**Group members:**
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466

SALMO Society

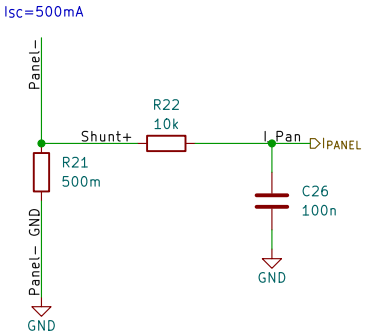
Sheet: /Connectivity/
File: connectivity.kicad_sch

***Title: Peripherals***

| Size: A4 | Date: 2022-04-13 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.5) | | Id: 4/6 |

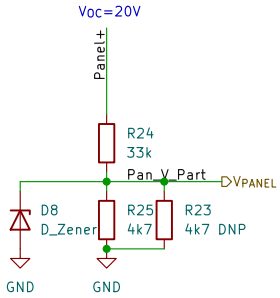
## Current sensing

Values need to be determined when the solar panel is defined
OpAmp model needs to be defined



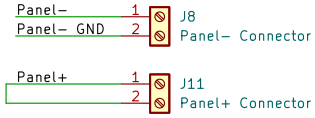

## Voltage sensing

Values need to be determined when the solar panel is defined
OpAmp model needs to be defined

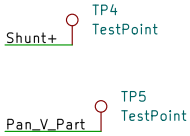



Second resistor is in case we want to increase the sensitivity

## Panel connector




Depending on panel power, might need more suitable connector





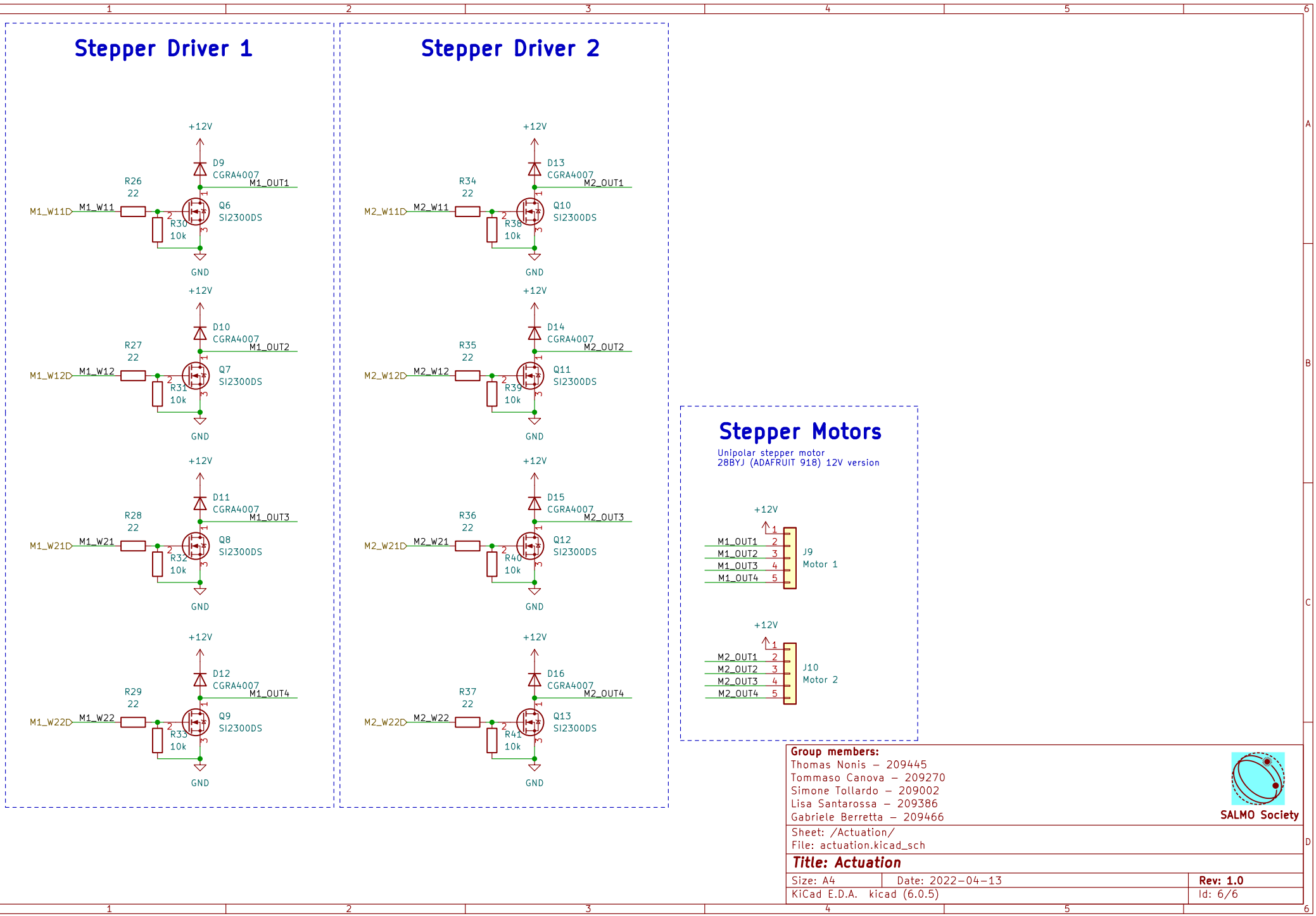
**Group members:**
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466

SALMO Society


Sheet: /Sensing/
File: sensing.kicad_sch

**Title: Sensing**

| Size: A4 | Date: 2022-04-13 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.5) | | Id: 5/6 |




**Group members:**
Thomas Nonis – 209445
Tommaso Canova – 209270
Simone Tollardo – 209002
Lisa Santarossa – 209386
Gabriele Berretta – 209466

SALMO Society

Sheet: /Actuation/
File: actuation.kicad_sch

***Title: Actuation***

| Size: A4 | Date: 2022-04-13 | **Rev: 1.0** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.5) | | Id: 6/6 |