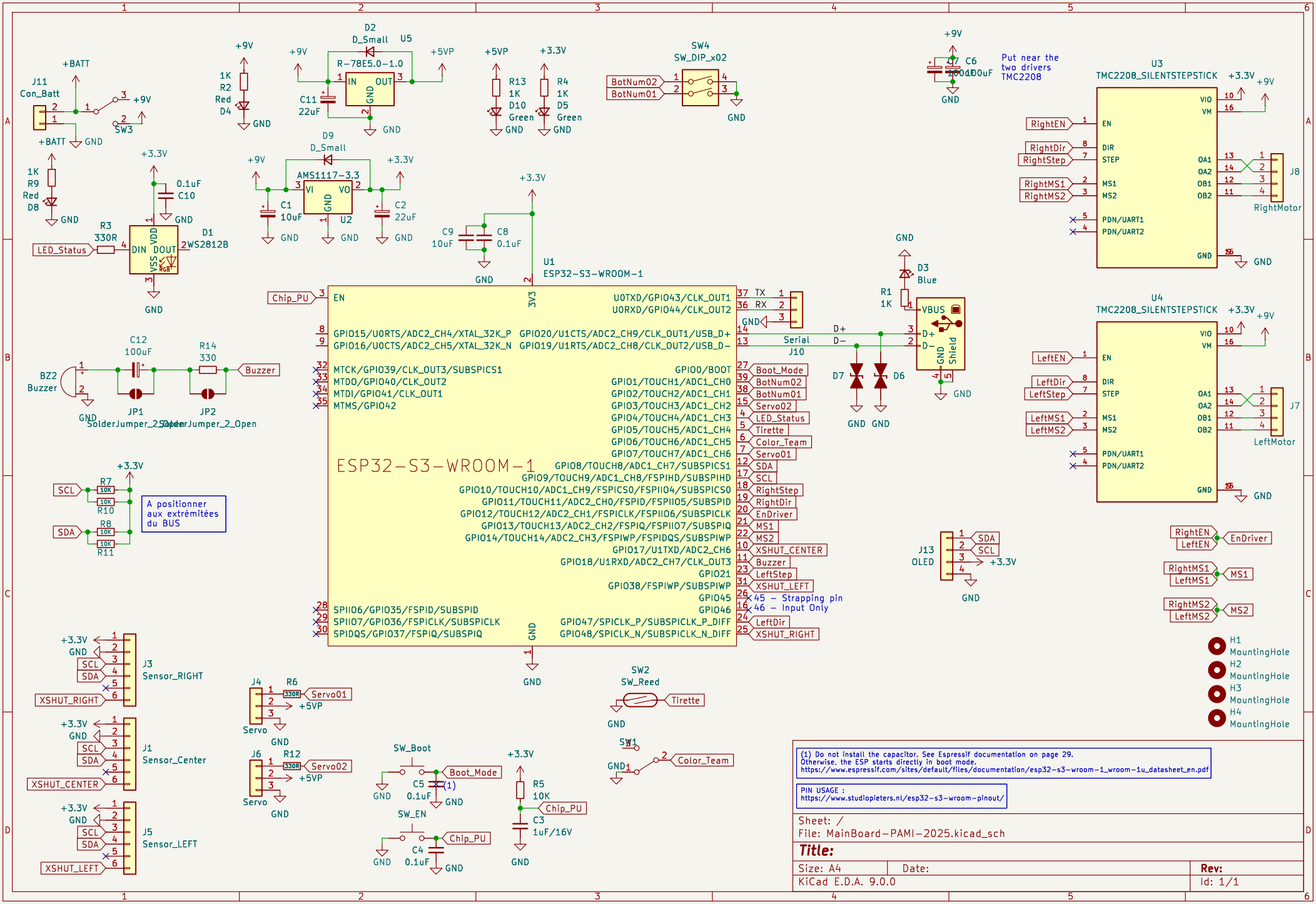
J11
Con_Batt
+BATT
+9V
SW3
GND
R9
1K
Red
D8
+3.3V
0.1uF
C10
R3
330R
LED_Status
DIN
DOUT
VDD
VSS
D1
WS2812B
+9V
R2
1K
Red
D4
D2
D_Small
U5
R-78E5.0-1.0
IN
OUT
GND
C11
22uF
+5VP
D9
D_Small
AMS1117-3.3
VI
VO
U2
C1
10uF
C2
22uF
+5VP
R13
1K
D10
Green
+3.3V
R4
1K
D5
Green
SW4
SW_DIP_x02
BotNum02
BotNum01
C9
10uF
C8
0.1uF
U1
ESP32-S3-WROOM-1
Chip_PU
EN
3V3
U0TXD/GPIO43/CLK_OUT1
U0RXD/GPIO44/CLK_OUT2
GPIO15/U0RTS/ADC2_CH4/XTAL_32K_P
GPIO16/U0CTS/ADC2_CH5/XTAL_32K_N
GPIO20/U1CTS/ADC2_CH9/CLK_OUT1/USB_D+
GPIO19/U1RTS/ADC2_CH8/CLK_OUT2/USB_D-
MTCK/GPIO39/CLK_OUT3/SUBSPICS1
MTDO/GPIO40/CLK_OUT2
MTDI/GPIO41/CLK_OUT1
MTMS/GPIO42
GPIO0/BOOT
GPIO1/TOUCH1/ADC1_CH0
GPIO2/TOUCH2/ADC1_CH1
GPIO3/TOUCH3/ADC1_CH2
GPIO4/TOUCH4/ADC1_CH3
GPIO5/TOUCH5/ADC1_CH4
GPIO6/TOUCH6/ADC1_CH5
GPIO7/TOUCH7/ADC1_CH6
GPIO8/TOUCH8/ADC1_CH7/SUBSPICS1
GPIO9/TOUCH9/ADC1_CH8/FSPIHD/SUBSPIHD
GPIO10/TOUCH10/ADC1_CH9/FSPICS0/FSPIIO4/SUBSPICS0
GPIO11/TOUCH11/ADC2_CH0/FSPID/FSPIIO5/SUBSPID
GPIO12/TOUCH12/ADC2_CH1/FSPICLK/FSPIIO6/SUBSPICLK
GPIO13/TOUCH13/ADC2_CH2/FSPIQ/FSPIIO7/SUBSPIQ
GPIO14/TOUCH14/ADC2_CH3/FSPIWP/FSPIDQS/SUBSPIWP
GPIO17/U1TXD/ADC2_CH6
GPIO18/U1RXD/ADC2_CH7/CLK_OUT3
GPIO21
GPIO38/FSPIWP/SUBSPIWP
GPIO45
GPIO46
GPIO47/SPICLK_P/SUBSPICLK_P_DIFF
GPIO48/SPICLK_N/SUBSPICLK_N_DIFF
SPIIO6/GPIO35/FSPID/SUBSPID
SPIIO7/GPIO36/FSPICLK/SUBSPICLK
SPIDQS/GPIO37/FSPIQ/SUBSPIQ
Boot_Mode
BotNum02
BotNum01
Servo02
LED_Status
Tirette
Color_Team
Servo01
SDA
SCL
RightStep
RightDir
EnDriver
MS1
MS2
XSHUT_CENTER
Buzzer
LeftStep
XSHUT_LEFT
45 - Strapping pin
46 - Input Only
LeftDir
XSHUT_RIGHT
TX
RX
Serial
J10
D+
D-
D3
Blue
R1
1K
VBUS
GND
Shield
D7
D6
C6
100uF
Put near the two drivers TMC2208
U3
TMC2208_SILENTSTEPSTICK
VIO
VM
EN
DIR
STEP
MS1
MS2
PDN/UART1
PDN/UART2
OA1
OA2
OB1
OB2
RightEN
RightDir
RightStep
RightMS1
RightMS2
J8
RightMotor
U4
TMC2208_SILENTSTEPSTICK
LeftEN
LeftDir
LeftStep
LeftMS1
LeftMS2
J7
LeftMotor
BZ2
Buzzer
C12
100uF
R14
330
JP1
SolderJumper_2_Open
JP2
SolderJumper_2_Open
R7
10K
R10
10K
R8
10K
R11
10K
A positionner aux extrémitées du BUS
J13
OLED
SDA
SCL
+3.3V
RightEN
LeftEN
EnDriver
RightMS1
LeftMS1
MS1
RightMS2
LeftMS2
MS2
H1
MountingHole
H2
MountingHole
H3
MountingHole
H4
MountingHole
J3
Sensor_RIGHT
XSHUT_RIGHT
J1
Sensor_Center
XSHUT_CENTER
J5
Sensor_LEFT
XSHUT_LEFT
J4
R6
330R
Servo01
Servo
J6
R12
330R
Servo02
Servo
SW_Boot
Boot_Mode
C5
0.1uF
(1)
SW_EN
Chip_PU
C4
0.1uF
R5
10K
C3
1uF/16V
SW2
SW_Reed
Tirette
SW1
Color_Team
(1) Do not install the capacitor. See Espressif documentation on page 29.
Otherwise, the ESP starts directly in boot mode.
https://www.espressif.com/sites/default/files/documentation/esp32-s3-wroom-1_wroom-1u_datasheet_en.pdf
PIN USAGE :
https://www.studiopieters.nl/esp32-s3-wroom-pinout/
Sheet: /
File: MainBoard-PAMI-2025.kicad_sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. 9.0.0
Id: 1/1