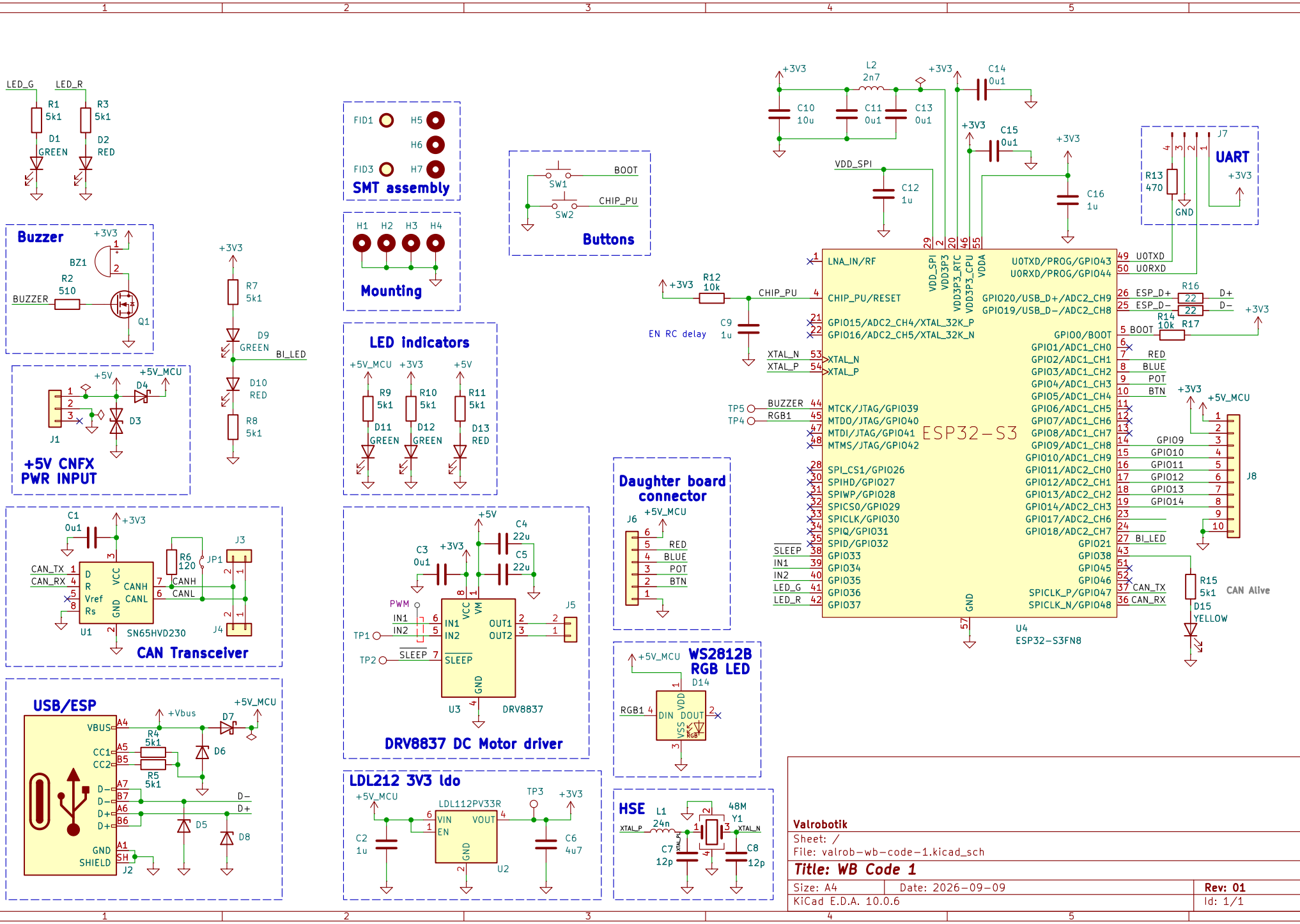
LED_G
LED_R
R1 5k1
R3 5k1
D1 GREEN
D2 RED
Buzzer
+3V3
BZ1
R2 510
BUZZER
Q1
+5V
+5V_MCU
D4
D3
J1
+5V CNFX PWR INPUT
+3V3
R7 5k1
D9 GREEN
BI_LED
D10 RED
R8 5k1
FID1
FID3
H5
H6
H7
SMT assembly
H1
H2
H3
H4
Mounting
SW1
SW2
BOOT
CHIP_PU
Buttons
LED indicators
+5V_MCU
+3V3
+5V
R9 5k1
R10 5k1
R11 5k1
D11 GREEN
D12 GREEN
D13 RED
C1 0u1
CAN_TX
CAN_RX
D
R
Vref
Rs
VCC
GND
CANH
CANL
R6 120
JP1
J3
J4
U1
SN65HVD230
CAN Transceiver
C3 0u1
C4 22u
C5 22u
PWM
IN1
IN2
SLEEP
VCC
VM
OUT1
OUT2
GND
TP1
TP2
J5
U3
DRV8837
DRV8837 DC Motor driver
Daughter board connector
J6
RED
BLUE
POT
BTN
WS2812B RGB LED
D14
RGB1
DIN
DOUT
VDD
VSS
LDL212 3V3 ldo
LDL112PV33R
VIN
EN
VOUT
C2 1u
C6 4u7
TP3
U2
HSE
L1 24n
48M
Y1
C7 12p
C8 12p
XTAL_P
XTAL_N
L2 2n7
C10 10u
C11 0u1
C13 0u1
C14 0u1
C15 0u1
C16 1u
C12 1u
VDD_SPI
VDD3P3
VDD3P3_RTC
VDD3P3_CPU
VDDA
R12 10k
C9 1u
EN RC delay
LNA_IN/RF
CHIP_PU/RESET
GPIO15/ADC2_CH4/XTAL_32K_P
GPIO16/ADC2_CH5/XTAL_32K_N
XTAL_N
XTAL_P
BUZZER
RGB1
MTCK/JTAG/GPIO39
MTDO/JTAG/GPIO40
MTDI/JTAG/GPIO41
MTMS/JTAG/GPIO42
SPI_CS1/GPIO26
SPIHD/GPIO27
SPIWP/GPIO28
SPICS0/GPIO29
SPICLK/GPIO30
SPIQ/GPIO31
SPID/GPIO32
SLEEP
IN1
IN2
LED_G
LED_R
GPIO33
GPIO34
GPIO35
GPIO36
GPIO37
U0TXD/PROG/GPIO43
U0RXD/PROG/GPIO44
GPIO20/USB_D+/ADC2_CH9
GPIO19/USB_D-/ADC2_CH8
GPIO0/BOOT
GPIO1/ADC1_CH0
GPIO2/ADC1_CH1
GPIO3/ADC1_CH2
GPIO4/ADC1_CH3
GPIO5/ADC1_CH4
GPIO6/ADC1_CH5
GPIO7/ADC1_CH6
GPIO8/ADC1_CH7
GPIO9/ADC1_CH8
GPIO10/ADC1_CH9
GPIO11/ADC2_CH0
GPIO12/ADC2_CH1
GPIO13/ADC2_CH2
GPIO14/ADC2_CH3
GPIO17/ADC2_CH6
GPIO18/ADC2_CH7
GPIO21
GPIO38
GPIO45
GPIO46
SPICLK_P/GPIO47
SPICLK_N/GPIO48
ESP32-S3
GND
U4
ESP32-S3FN8
U0TXD
U0RXD
ESP_D+
ESP_D-
R16 22
R14 10k
R17
D+
D-
BOOT
RED
BLUE
POT
BTN
BI_LED
CAN_TX
CAN_RX
R15 5k1
CAN Alive
D15 YELLOW
J7
UART
R13 470
J8
USB/ESP
VBUS
CC1
CC2
D-
D+
GND
SHIELD
J2
+Vbus
R4 5k1
R5 5k1
D6
D7
D5
D8
Valrobotik
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Date: 2026-09-09
Rev: 01
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