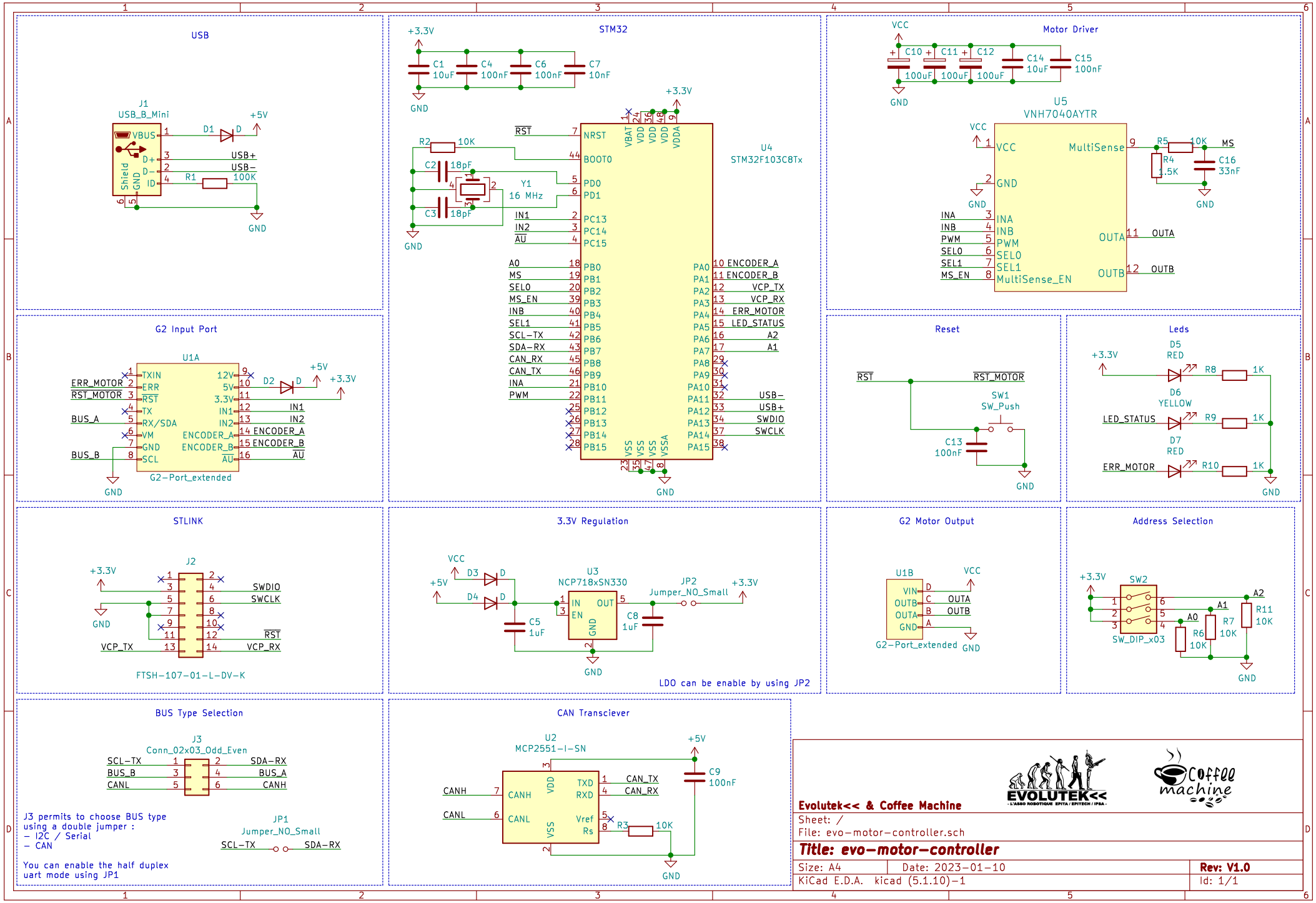
USB
J1
USB_B_Mini
VBUS
D+
D−
ID
GND
Shield
D1
+5V
USB+
USB−
R1
100K
GND
STM32
+3.3V
C1 10uF
C4 100nF
C6 100nF
C7 10nF
GND
R2 10K
C2 18pF
C3 18pF
Y1
16 MHz
U4
STM32F103C8Tx
NRST
BOOT0
PD0
PD1
PC13
PC14
PC15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
VBAT
VDD
VDDA
VSS
VSSA
RST
IN1
IN2
AU
A0
MS
SEL0
MS_EN
INB
SEL1
SCL−TX
SDA−RX
CAN_RX
CAN_TX
INA
PWM
ENCODER_A
ENCODER_B
VCP_TX
VCP_RX
ERR_MOTOR
LED_STATUS
A2
A1
USB−
USB+
SWDIO
SWCLK
Motor Driver
VCC
C10 100uF
C11 100uF
C12 100uF
C14 10uF
C15 100nF
GND
U5
VNH7040AYTR
VCC
GND
MultiSense
INA
INB
PWM
SEL0
SEL1
MultiSense_EN
OUTA
OUTB
R5 10K
R4 1.5K
C16 33nF
MS
G2 Input Port
U1A
TXIN
ERR
RST
TX
RX/SDA
VM
GND
SCL
12V
5V
3.3V
IN1
IN2
ENCODER_A
ENCODER_B
AU
ERR_MOTOR
RST_MOTOR
BUS_A
BUS_B
D2
+5V
+3.3V
G2−Port_extended
Reset
RST
RST_MOTOR
SW1
SW_Push
C13 100nF
GND
Leds
+3.3V
D5
RED
R8 1K
D6
YELLOW
LED_STATUS
R9 1K
D7
RED
ERR_MOTOR
R10 1K
GND
STLINK
J2
+3.3V
GND
SWDIO
SWCLK
RST
VCP_TX
VCP_RX
FTSH−107−01−L−DV−K
3.3V Regulation
VCC
+5V
D3
D4
U3
NCP718xSN330
IN
EN
OUT
GND
C5 1uF
C8 1uF
JP2
Jumper_NO_Small
+3.3V
GND
LDO can be enable by using JP2
G2 Motor Output
U1B
VIN
OUTB
OUTA
GND
VCC
OUTA
OUTB
G2−Port_extended
GND
Address Selection
+3.3V
SW2
SW_DIP_x03
A2
A1
A0
R6 10K
R7 10K
R11 10K
GND
BUS Type Selection
J3
Conn_02x03_Odd_Even
SCL−TX
BUS_B
CANL
SDA−RX
BUS_A
CANH
J3 permits to choose BUS type
using a double jumper :
− I2C / Serial
− CAN
You can enable the half duplex
uart mode using JP1
JP1
Jumper_NO_Small
SCL−TX
SDA−RX
CAN Transciever
U2
MCP2551−I−SN
+5V
CANH
CANL
VDD
VSS
TXD
RXD
Vref
Rs
CAN_TX
CAN_RX
C9 100nF
R3 10K
GND
Evolutek<< & Coffee Machine
Sheet: /
File: evo−motor−controller.sch
Title: evo−motor−controller
Size: A4
Date: 2023−01−10
Rev: V1.0
KiCad E.D.A. kicad (5.1.10)−1
Id: 1/1