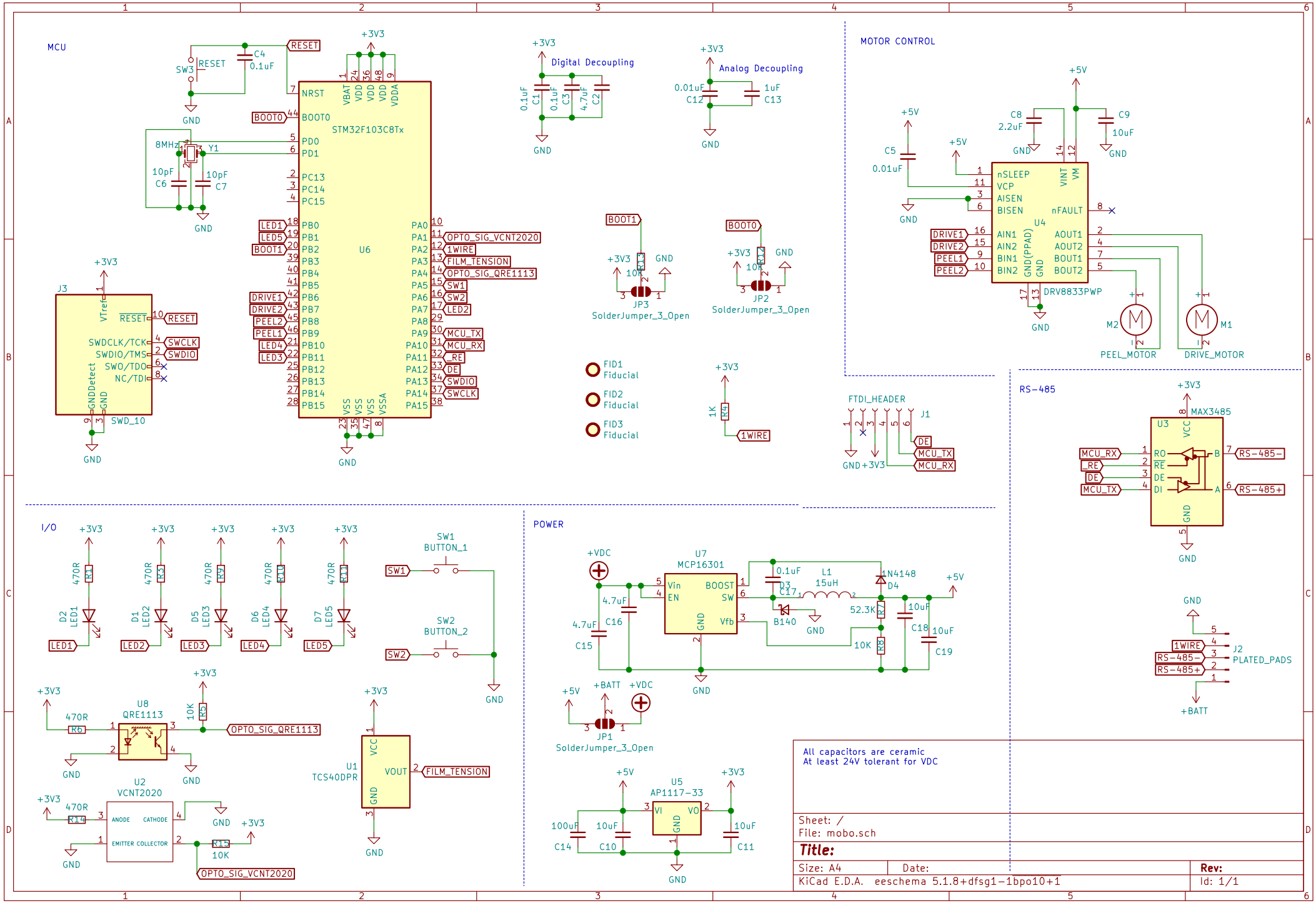
MCU
SW3
RESET
C4
0.1uF
GND
+3V3
BOOT0
STM32F103C8Tx
8MHz
Y1
10pF
C6
10pF
C7
U6
NRST
BOOT0
PD0
PD1
PC13
PC14
PC15
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
VBAT
VDD
VDDA
VSS
VSSA
LED1
LED5
BOOT1
DRIVE1
DRIVE2
PEEL2
PEEL1
LED4
LED3
OPTO_SIG_VCNT2020
1WIRE
FILM_TENSION
OPTO_SIG_QRE1113
SW1
SW2
LED2
MCU_TX
MCU_RX
_RE
DE
SWDIO
SWCLK
J3
VTref
RESET
SWDCLK/TCK
SWDIO/TMS
SWO/TDO
NC/TDI
GNDDetect
SWD_10
Digital Decoupling
C1
C3
C2
Analog Decoupling
C12
C13
JP3
SolderJumper_3_Open
JP2
SolderJumper_3_Open
R13
R12
FID1
Fiducial
FID2
Fiducial
FID3
Fiducial
R14
1K
MOTOR CONTROL
+5V
C5
0.01uF
C8
2.2uF
C9
10uF
U4
nSLEEP
VCP
AISEN
BISEN
nFAULT
VINT
VM
AIN1
AIN2
BIN1
BIN2
GND(PPAD)
GND
AOUT1
AOUT2
BOUT1
BOUT2
DRV8833PWP
M2
M1
PEEL_MOTOR
DRIVE_MOTOR
FTDI_HEADER
J1
RS-485
MAX3485
U3
VCC
RO
RE
DE
DI
B
A
RS-485-
RS-485+
J2
PLATED_PADS
+BATT
I/O
470R
R1
R3
R9
R10
R11
D2
LED1
D1
LED2
D5
LED3
D6
LED4
D7
LED5
SW1
BUTTON_1
SW2
BUTTON_2
U8
QRE1113
R6
10K
R5
OPTO_SIG_QRE1113
U2
VCNT2020
R14
ANODE
CATHODE
EMITTER
COLLECTOR
R15
10K
OPTO_SIG_VCNT2020
U1
TCS40DPR
VCC
VOUT
FILM_TENSION
POWER
+VDC
U7
MCP16301
Vin
EN
BOOST
SW
Vfb
4.7uF
C16
4.7uF
C15
0.1uF
C17
D3
B140
L1
15uH
1N4148
D4
52.3K
R7
10K
R8
10uF
C18
10uF
C19
JP1
SolderJumper_3_Open
U5
AP1117-33
VI
VO
100uF
C14
10uF
C10
10uF
C11
All capacitors are ceramic
At least 24V tolerant for VDC
Sheet: /
File: mobo.sch
Title:
Size: A4
Date:
Rev:
KiCad E.D.A. eeschema 5.1.8+dfsg1-1bpo10+1
Id: 1/1