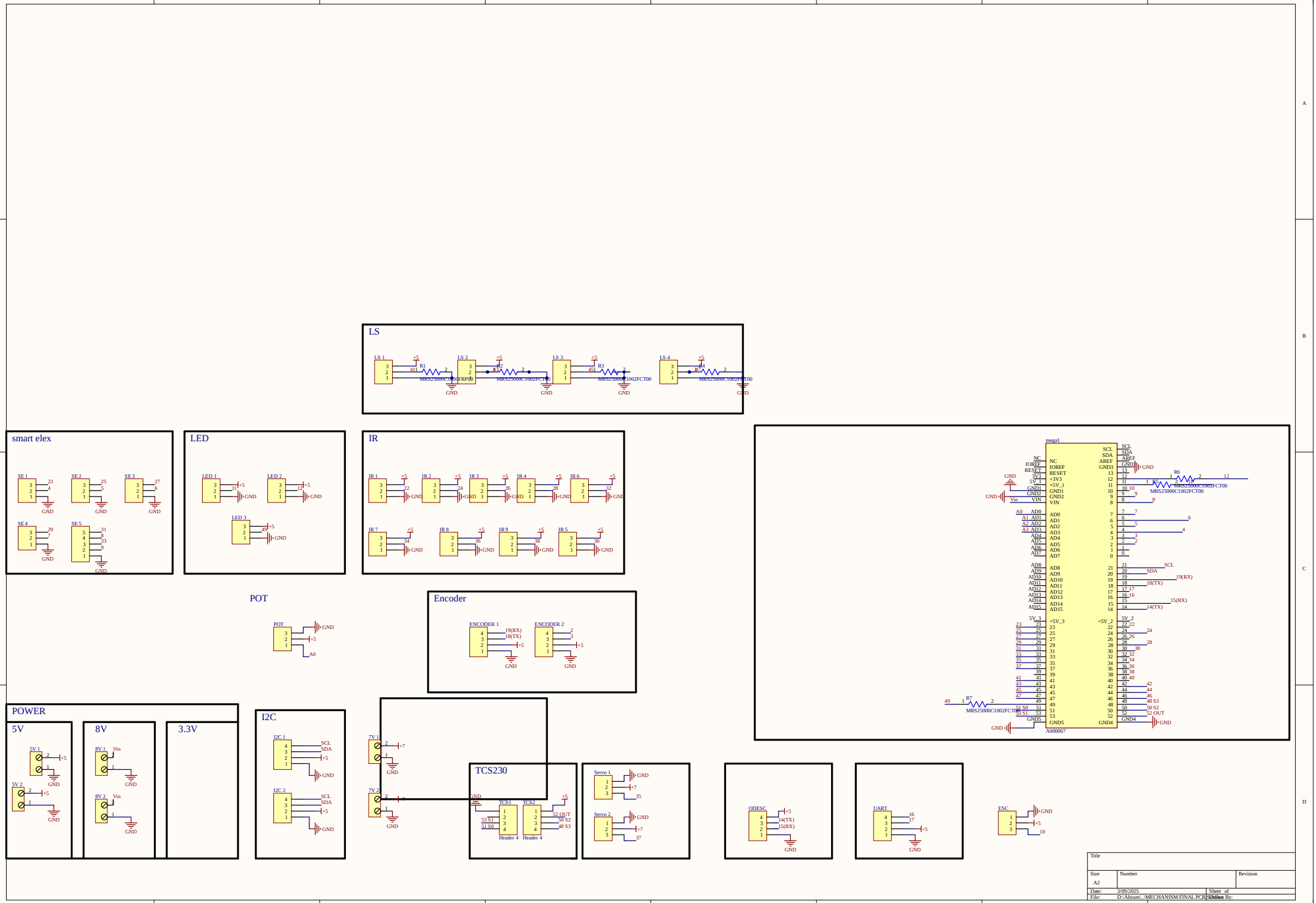
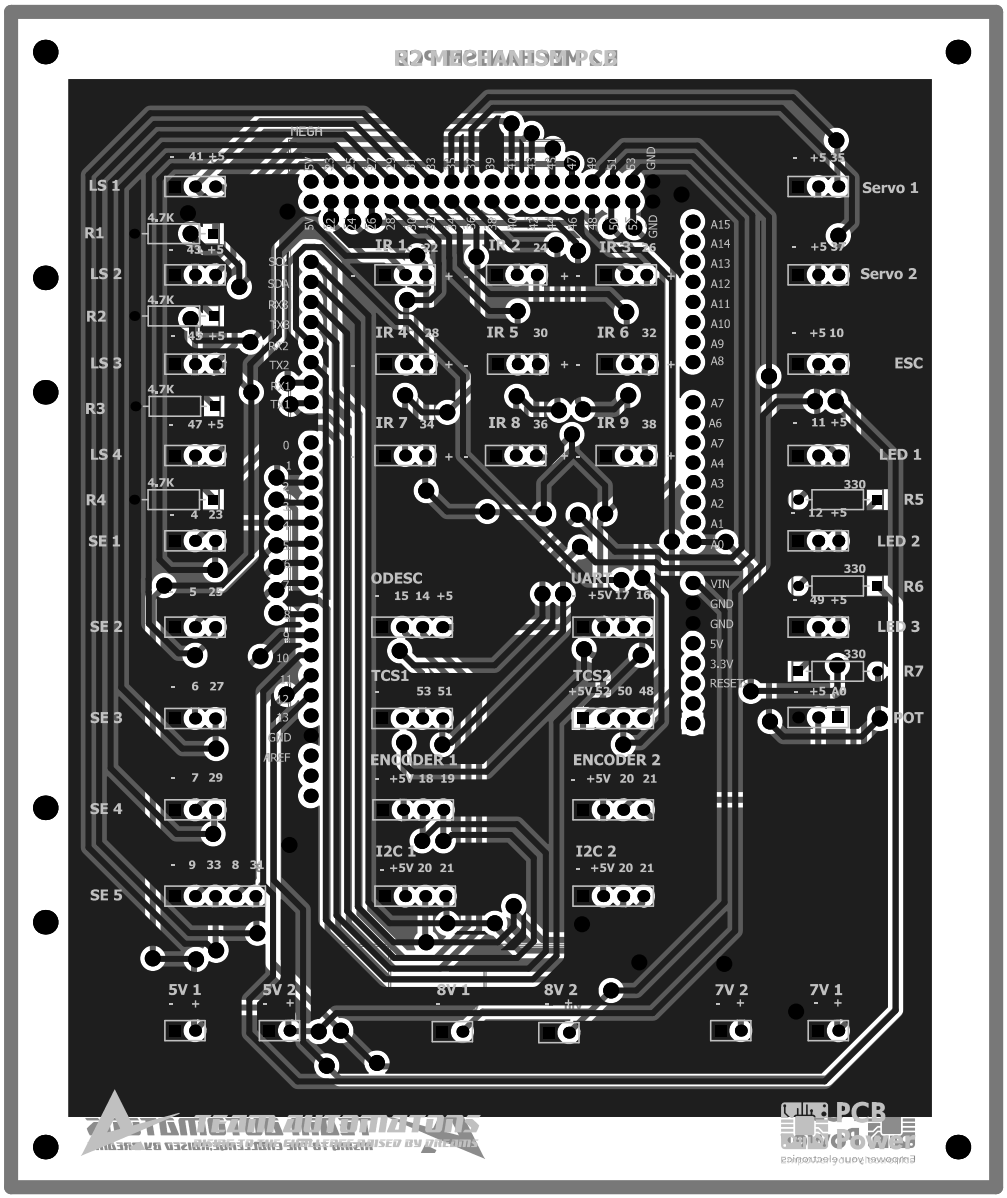

LS
LS 1
LS 2
LS 3
LS 4
R1
R2
R3
R4
MRS25000C1002FCT00
smart elex
SE 1
SE 2
SE 3
SE 4
SE 5
LED
LED 1
LED 2
LED 3
IR
IR 1
IR 2
IR 3
IR 4
IR 6
IR 7
IR 8
IR 9
IR 5
POT
Encoder
ENCODER 1
ENCODER 2
mega1
A000067
POWER
5V
8V
3.3V
I2C
I2C 1
I2C 2
TCS230
TCS1
TCS2
Header 4
Servo 1
Servo 2
ODESC
UART
ESC
GND
Title
Size
A2
Number
Revision
Date:
3/09/2025
Sheet of
File:
D:\Altium\..\MECHANISM FINAL PCB.SchDoc
Drawn By:


MEGA
LS 1
R1
LS 2
R2
LS 3
R3
LS 4
R4
SE 1
SE 2
SE 3
SE 4
SE 5
4.7K
IR 1
IR 2
IR 3
IR 4
IR 5
IR 6
IR 7
IR 8
IR 9
ODESC
UART
TCS1
TCS2
ENCODER 1
ENCODER 2
I2C 1
I2C 2
5V 1
5V 2
8V 1
8V 2
7V 2
7V 1
Servo 1
Servo 2
ESC
LED 1
LED 2
LED 3
330
R5
R6
R7
POT
VIN
GND
GND
5V
3.3V
RESET

Comment	Description	Designator	Footprint	LibRef	Quantity
2-pin-connector		5V 1, 5V 2, 7V 1, 7V 2, 8V 1, 8V 2	HDR1X2	2-pin-connector	6
Header 4	Header, 4-Pin	ENCODER 1, ENCODER 2, I2C 1, I2C 2, ODESC, TCS1, TCS2, UART	HDR1X4	Header 4	8
Header 3	Header, 3-Pin	ESC, IR 1, IR 2, IR 3, IR 4, IR 5, IR 6, IR 7, IR 8, IR 9, LED 1, LED 2, LED 3, LS 1, LS 2, LS 3, LS 4, POT, SE 1, SE 2, SE 3, SE 4, Servo 1, Servo 2	HDR1X3	Header 3	24
A000067	Arduino Mega 2560 Rev3. ATmega2560 Microcontroller Mega Development Board 16MHz CPU 8KB RAM 4KB/256KB EEPROM/Flash	mega1	ARDUINO_A000067	CMP-017-000000-1	1
MRS25000C1000FRP00	MRS25000C1000FRP00 Resistor, 100 Ohm, ± 1%, 600 mW, Axial Leaded, Metal Film (Thin Film), Professional	R1	FP-MRS25-MFG	CMP-00030-42757237-1	1
MRS25000C1002FCT00	MRS25000C1002FCT00 Resistor, 10 kOhm, ± 1%, 600 mW, Axial Leaded, Metal Film (Thin Film), Professional	R2, R3, R4, R5, R6, R7	FP-MRS25-MFG	CMP-00030-42632392-1	6
Header 5	Header, 5-Pin	SE 5	HDR1X5	Header 5	1