

Sheet: /
File: esp32-racer.kicad_sch

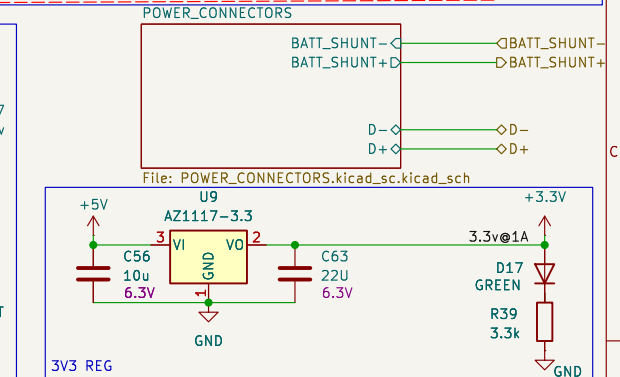
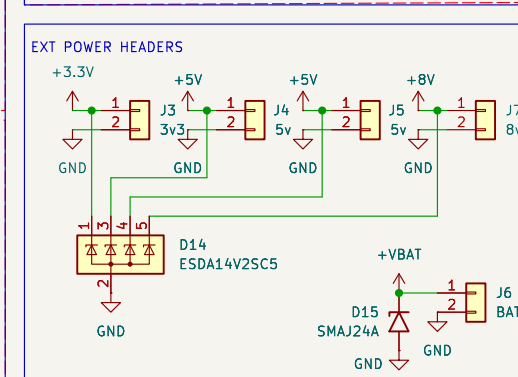
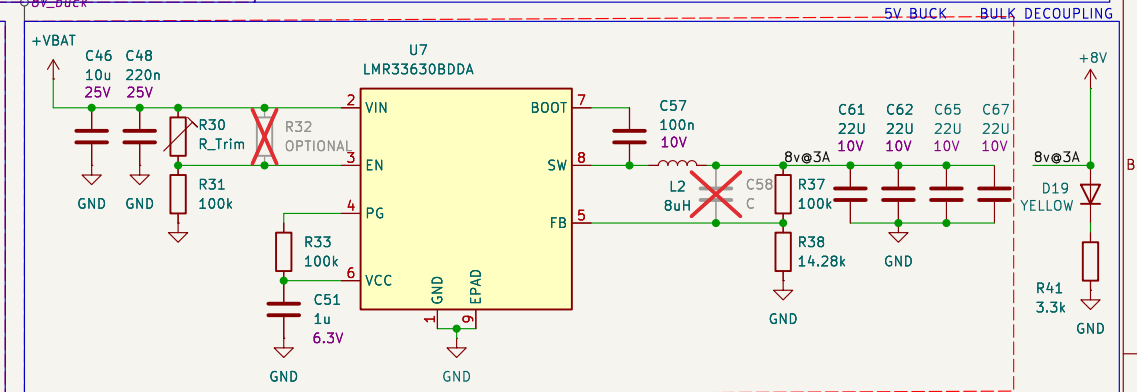
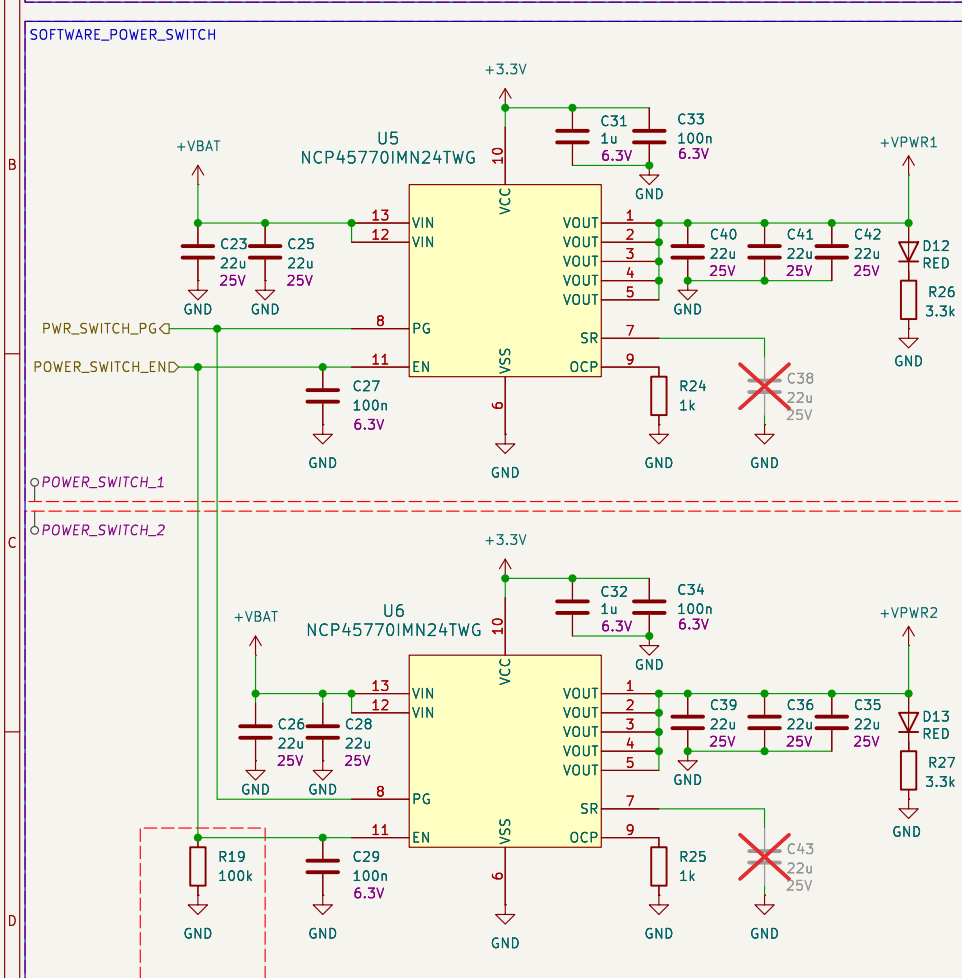
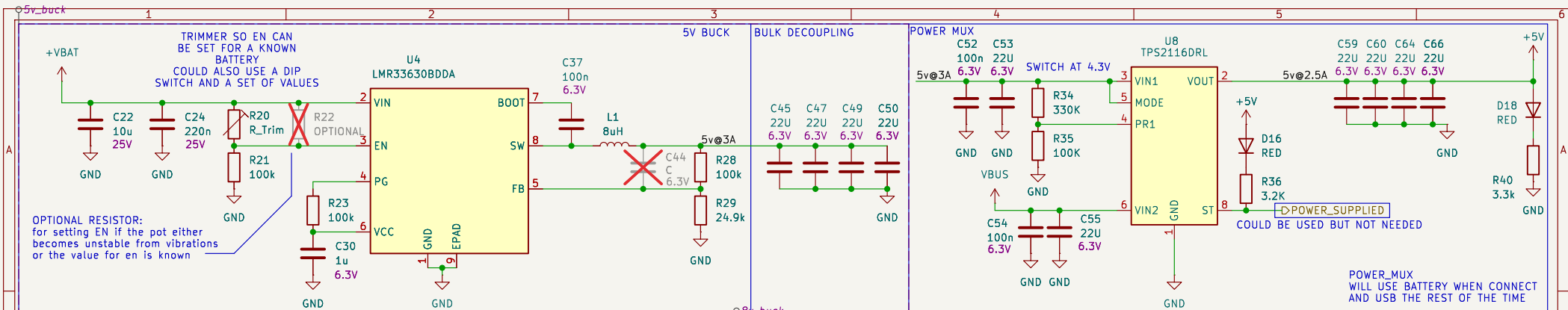
Title:

Size: A4
KiCad E.D.A. 9.0.3

Date:

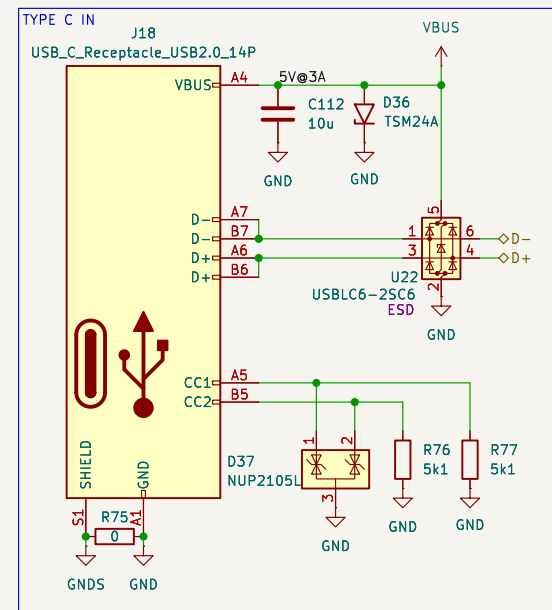
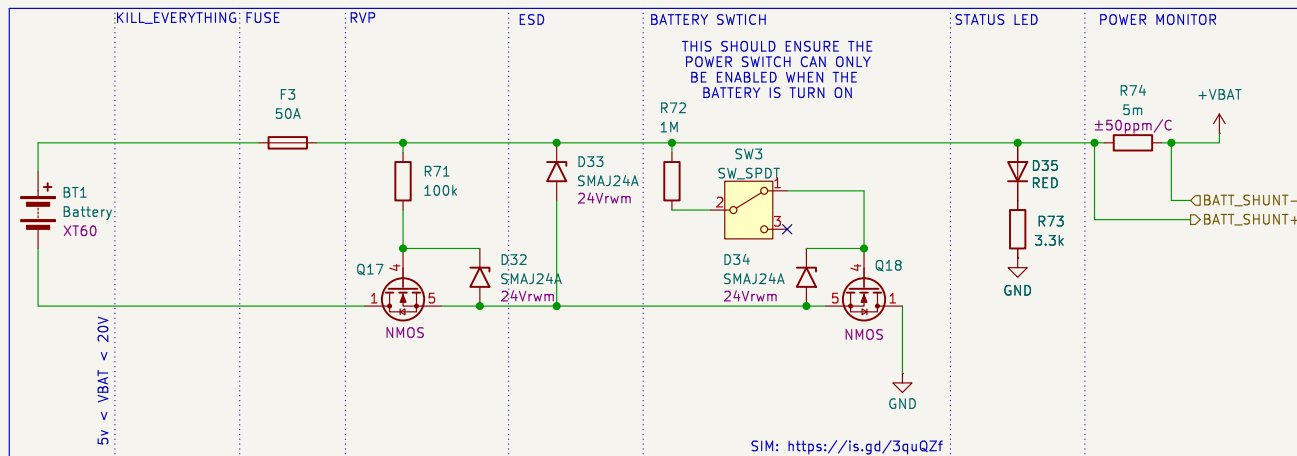
Rev:

Id: 1/10



THE REASON FOR THE POWER_MUX IS PR1 WILL SWITCH @ 1V USB VOLTAGE IS A MIN OF 4.5V IF PASSED THROUGH AN OR-ING DIODE THEN IT WILL DROP IT ENOUGH TO NOT CLEAR THE 4.3V MIN REQUIRED BY THE AZ1117-3.3

PR1 WILL SWITCH @ 1V VOLTAGE DIV WILL SWAP TO VIN2 WHEN VIN1 REACHES 4.3V THE POINT WHERE THE 3.3V REG WILL DROP TOO MUCH VOLTAGE HOWEVER IT IS SUGGESTED THESE ARE REMOVED ONCE TESTING IS DONE



Sheet: /PWR/POWER_CONNECTORS/
 File: POWER_CONNECTORS.kicad_sc.kicad_sch

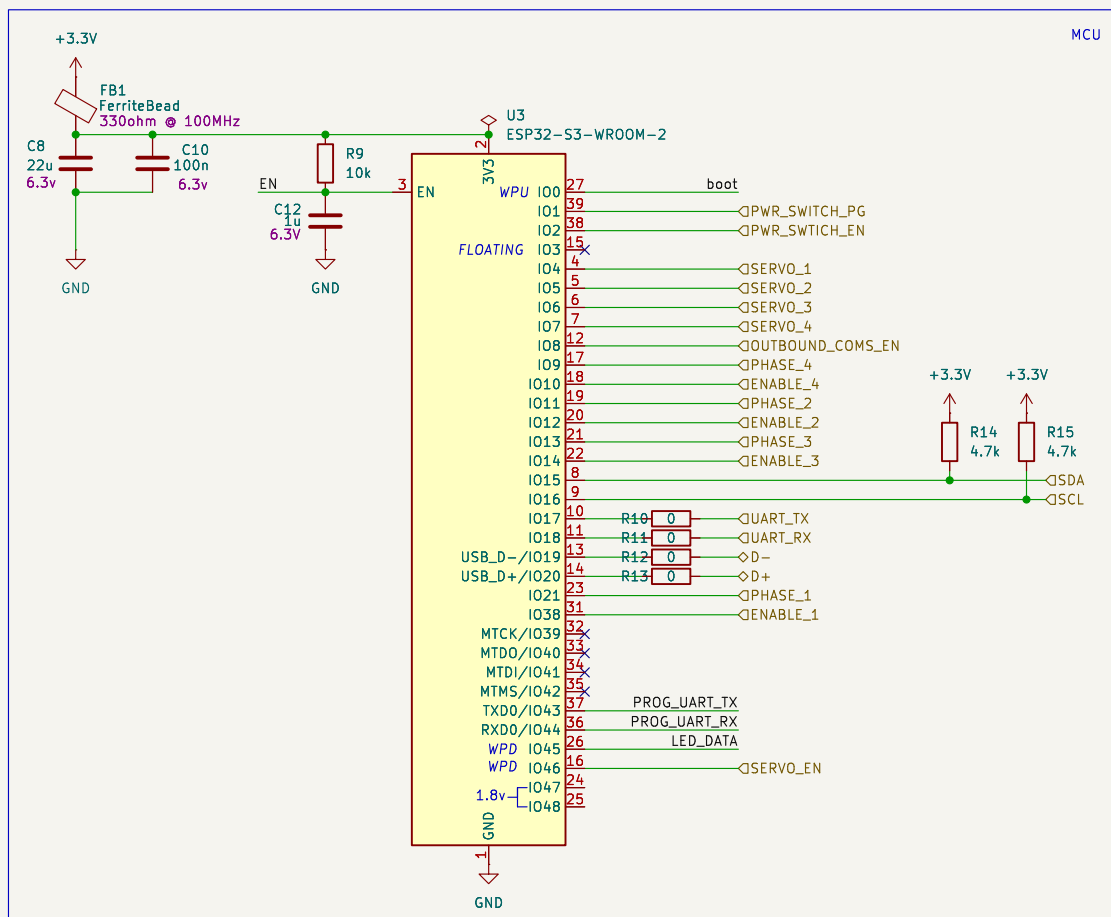
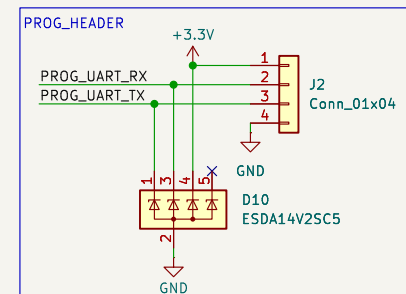
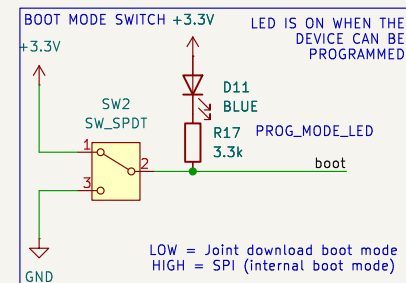
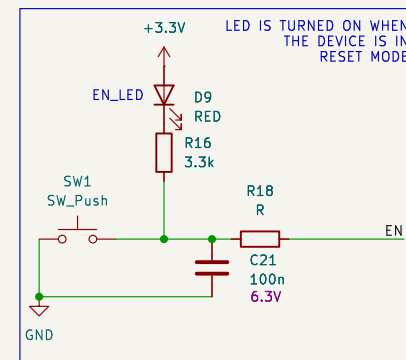
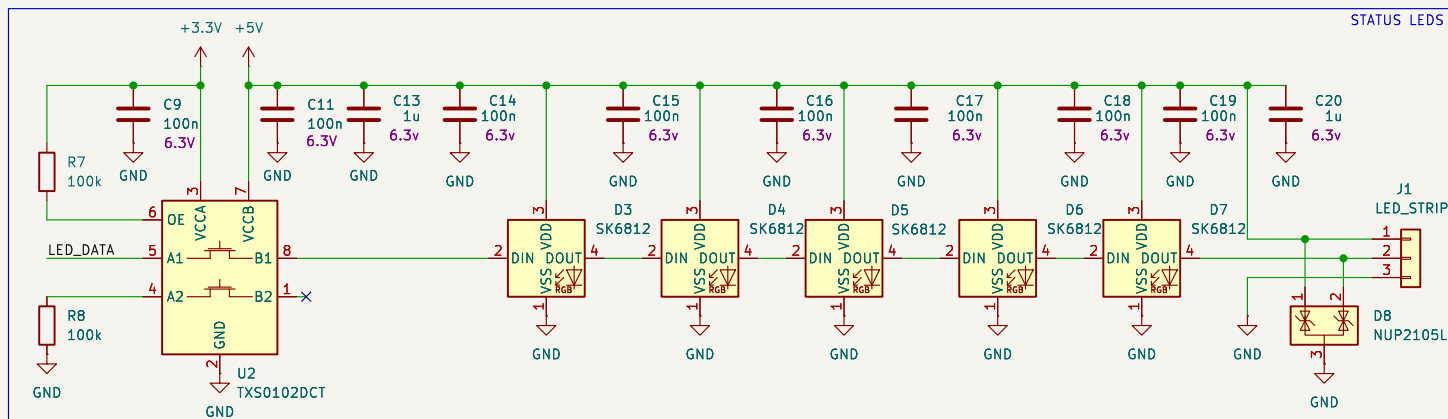
Title:

Size: A4
 KiCad E.D.A. 9.0.3

Date:

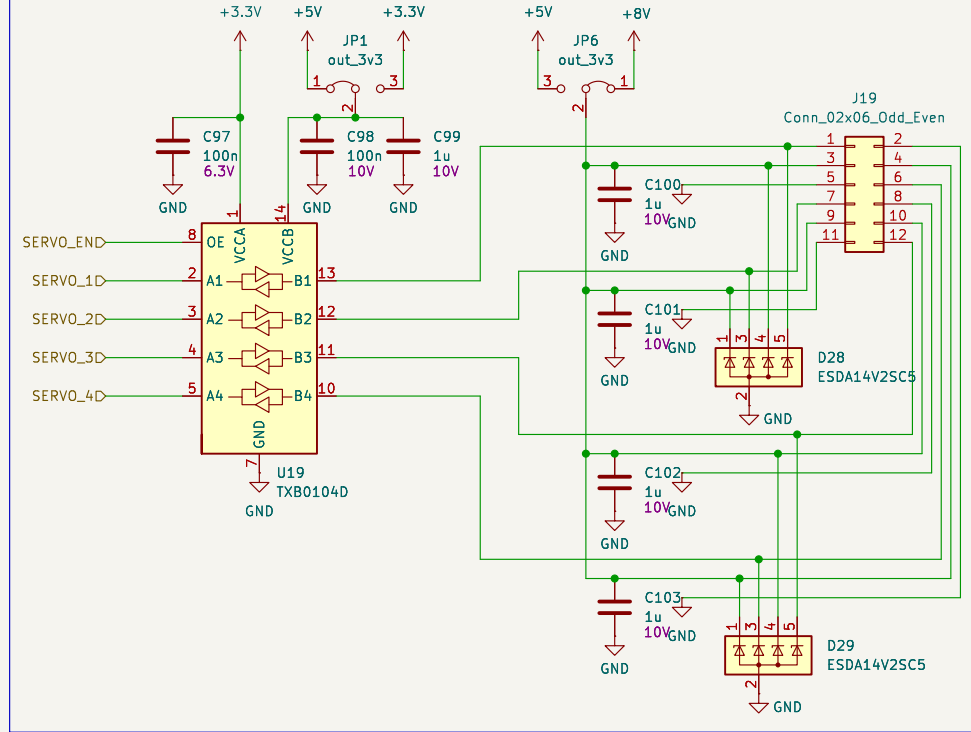
Rev:

Id: 10/10

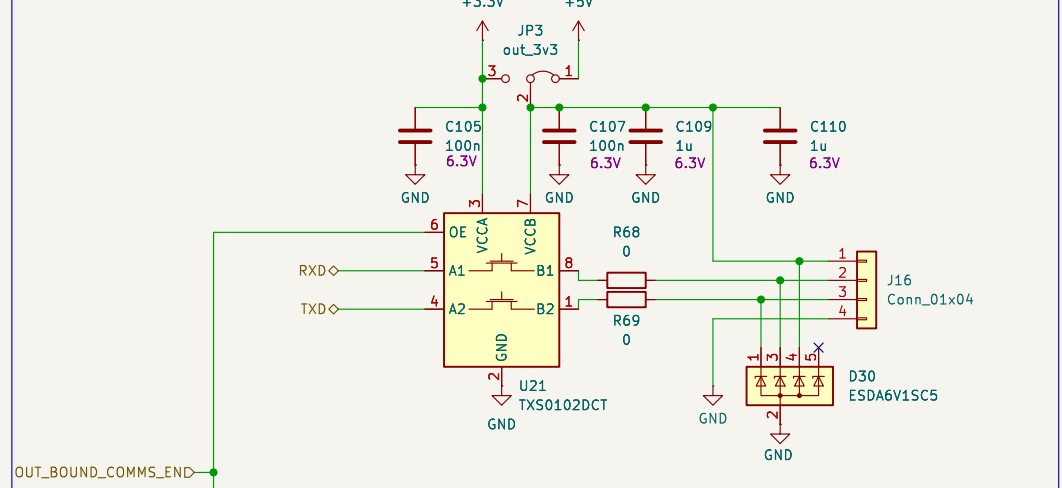


Sheet: /MCU/
 File: MCU.kicad_sch
Title:
 Size: A4 Date:
 KiCad E.D.A. 9.0.3
Rev:
 Id: 3/10

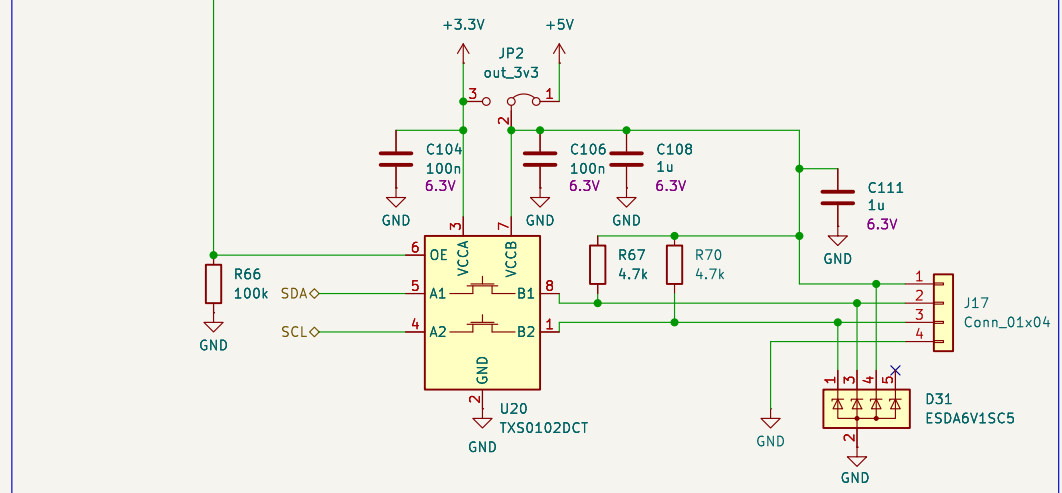
SERVO INTERFACE



UART INTERFACE



I2C INTERFACE



Sheet: /EXTERNAL_INTERFACING_DEVICES/
 File: EXTERNAL_INTERFACING_DEVICES.kicad_sch

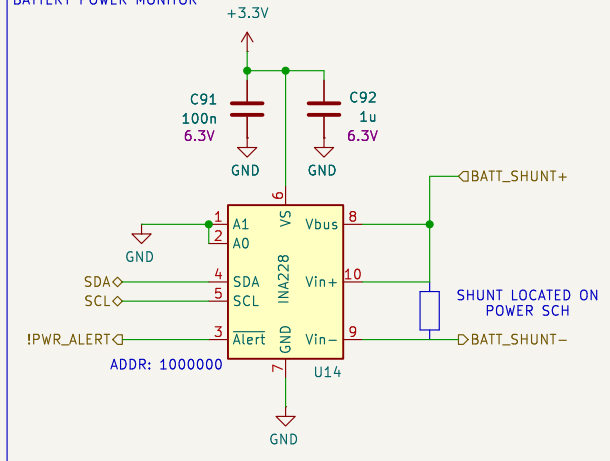
Title:

Size: A4
 KiCad E.D.A. 9.0.3

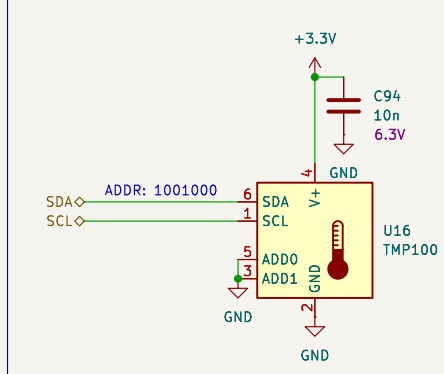
Date:

Rev:
 Id: 9/10

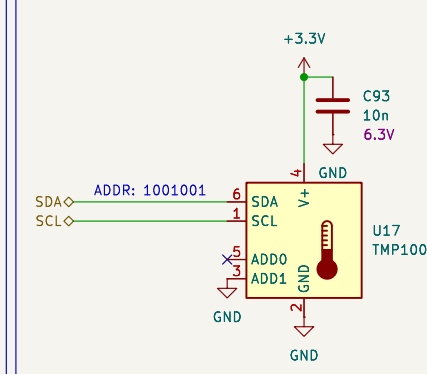
BATTERY POWER MONITOR



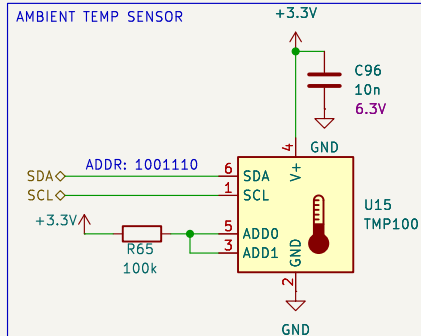
MOTOR DRIVER MOSFET TEMP MEASUREMENT SENSOR



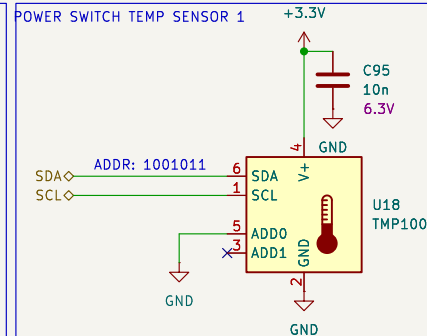
POWER MUX TEMP SENSOR



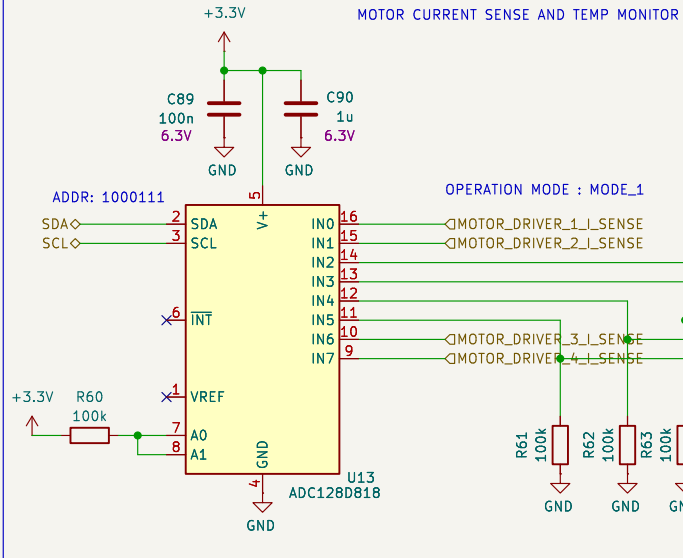
AMBIENT TEMP SENSOR



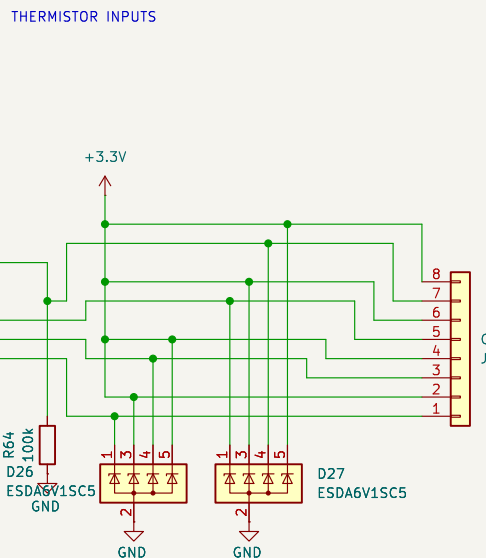
POWER SWITCH TEMP SENSOR 1



MOTOR CURRENT SENSE AND TEMP MONITOR



THERMISTOR INPUTS



Conn_01x08
J8

points to measure temp:
software controlled power switch
power mux
motor drivers

Sheet: /BOARD_STAT_MEASUREMENT/
File: BOARD_STAT_MEASUREMENT.kicad_sch

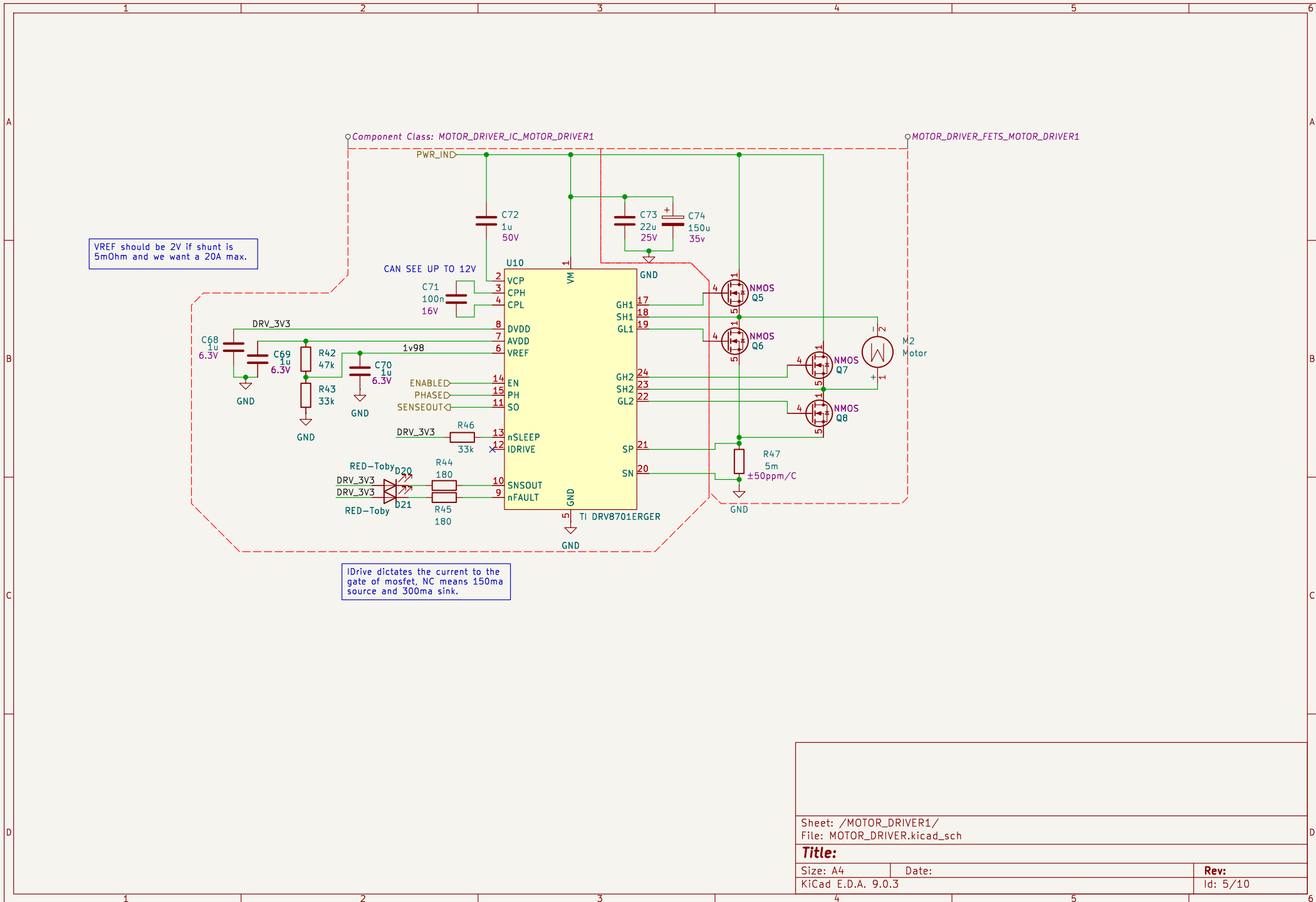
Title:

Size: A4
KiCad E.D.A. 9.0.3

Date:

Rev:

Id: 8/10



Sheet: /MOTOR_DRIVER1/
 File: MOTOR_DRIVER.kicad_sch

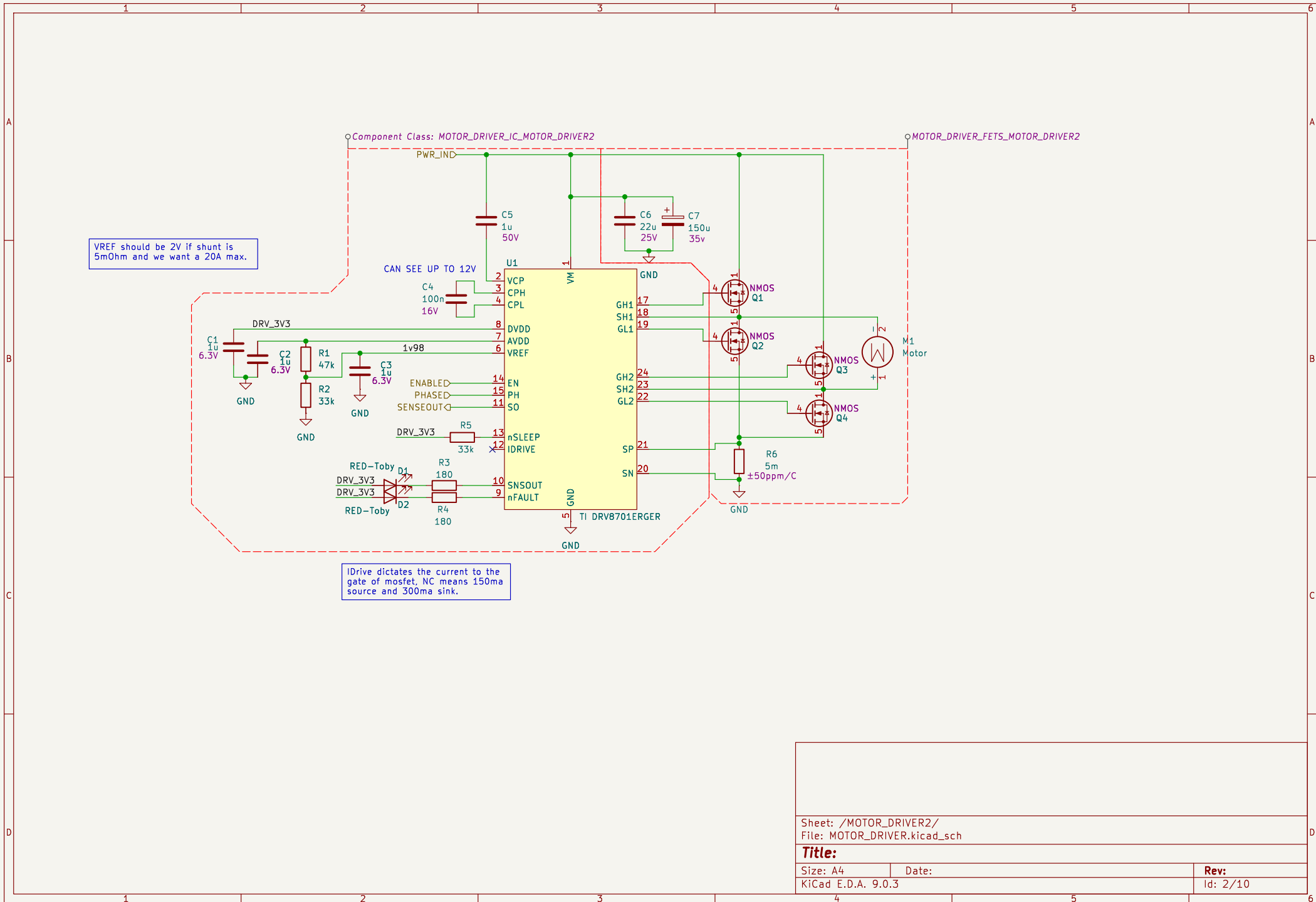
Title:

Size: A4
 KiCad E.D.A. 9.0.3

Date:

Rev:

Id: 5/10



VREF should be 2V if shunt is 5mOhm and we want a 20A max.

I Drive dictates the current to the gate of mosfet, NC means 150ma source and 300ma sink.

Sheet: /MOTOR_DRIVER2/
File: MOTOR_DRIVER.kicad_sch

Title:

Size: A4
KiCad E.D.A. 9.0.3

Date:

Rev:

Id: 2/10

