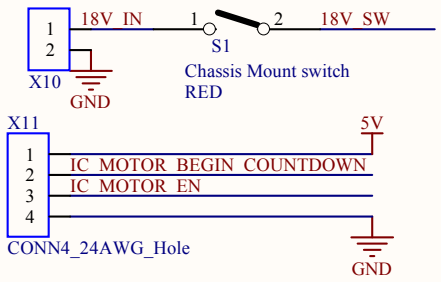
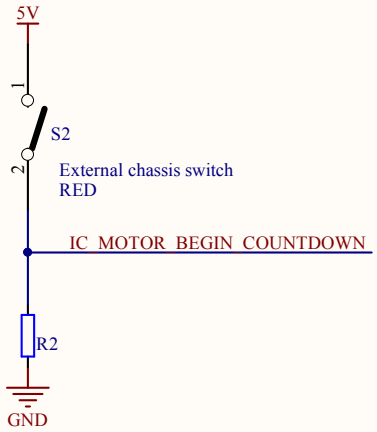
POWER_IN

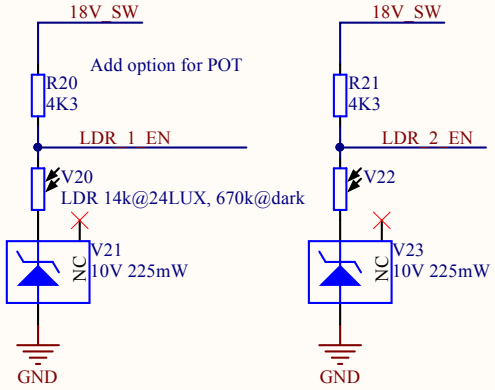


SW BEGIN



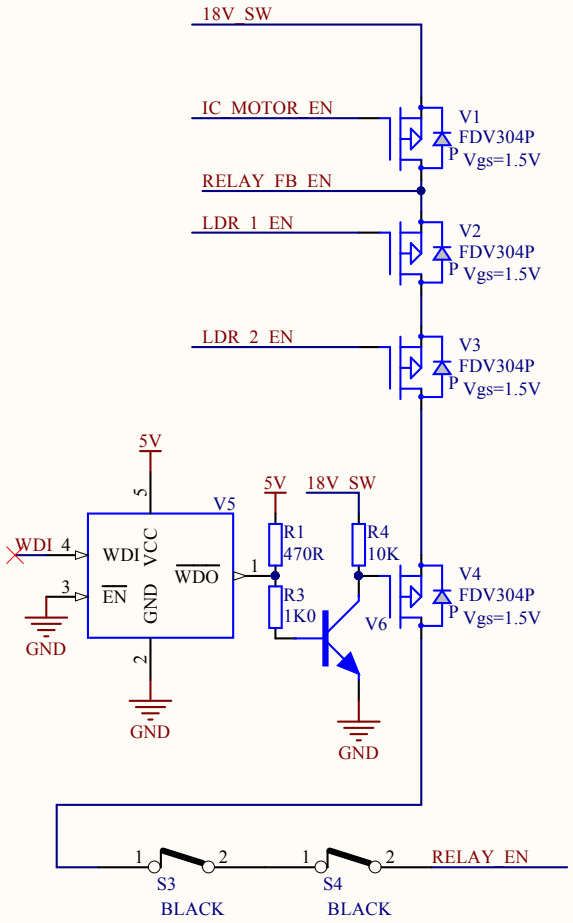
LDR EN

LDR's read 14k in a reasonably dark room, and 670k ina very dark room.
Safety system is to throw a blanket over the robot.
Ideally 17.9V@output when dark (pnp stops conducting).
Ideally 16.5V@output when bright (pnp starts conducting).

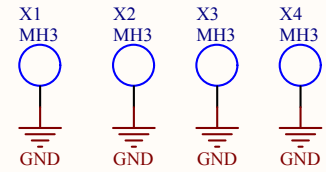


RELAY ENABLE

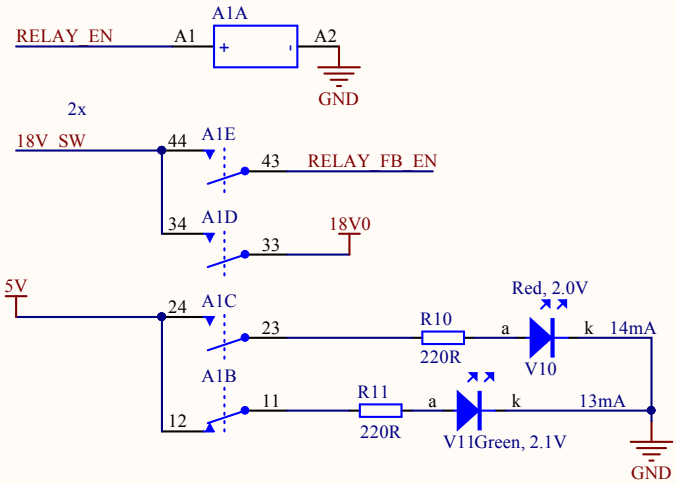
This is the safety circuit for the sumo robot.
NOTE: P-CHANNEL MOSFET'S CONDUCT WHEN V=0V. OPEN CIRCUIT AT Vss.
The detection hardware must assert the "EN" signal high before the relay is enabled, and power can go to the motors.
The "EN" from the IC shall only be high for a 100ms pulse, which begins 5,000ms after the SW_Begin switch is depressed.



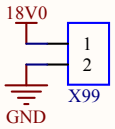
MOUNTING



RELAY POWER



POWER_OUT



DEBUGGING

Debugging not required.
Board will be internal to instrument, and LED's not visible (Other than general red/green glow of the instrument due to V10 & V11).

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