

5V - 3.3V Buck Converter

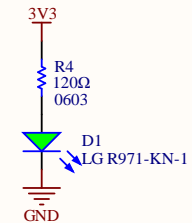
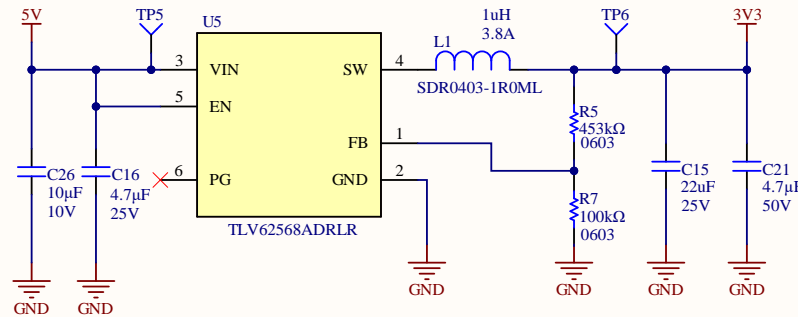
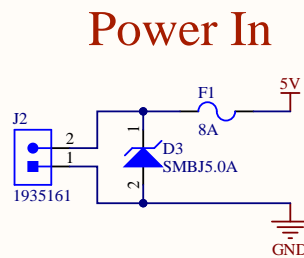
Designed for 3.3V - 5V input

Route for 1A in

Inductor: SDR0403-1R0ML
1uH, 20%, 33mOhm DCR (max)
3.8A (rms), 5.5A (sat), 3.2mm tall

Maximum output current = 2A
Maximum output power = 6.6W
Expected efficiency at 1A = 94.3%

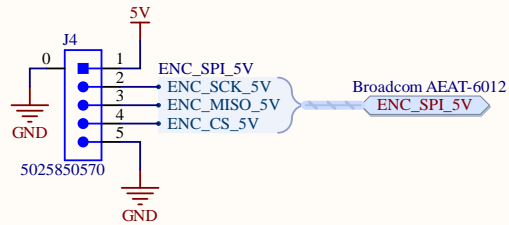
Route for 3A out



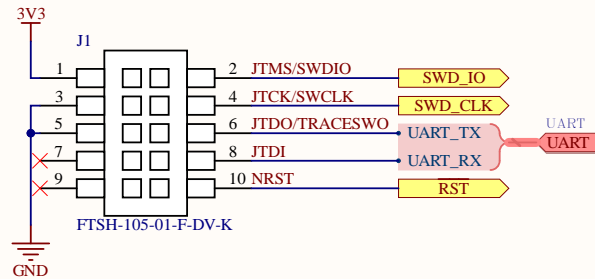
Current Calculations

Green LED voltage drop: 2.2V
- $I = (3.3 - 2.2V) / 120 = 9.17mA$

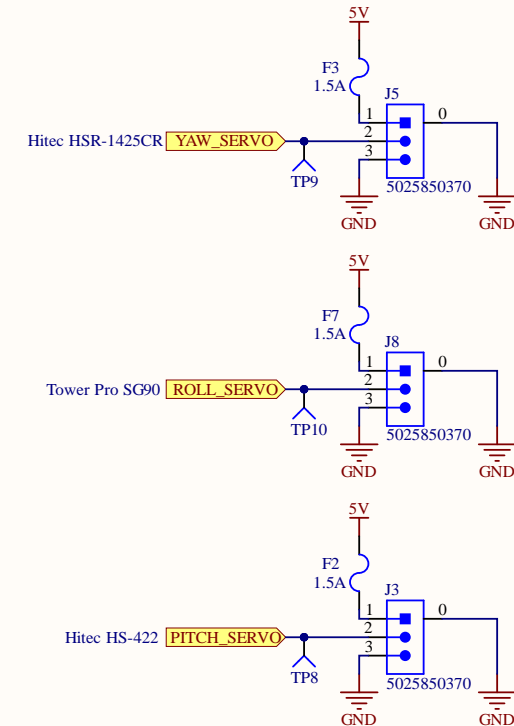
Encoder



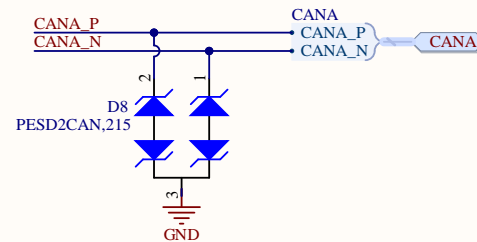
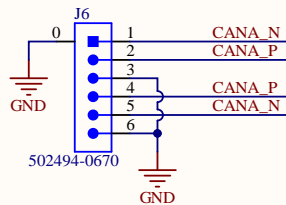
Debug/Programming



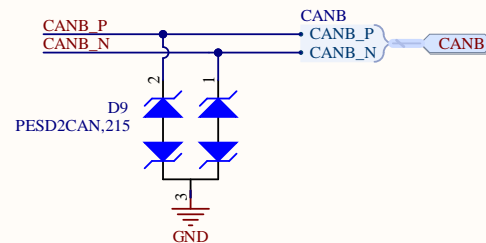
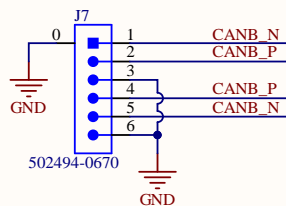
3-Axis Servos



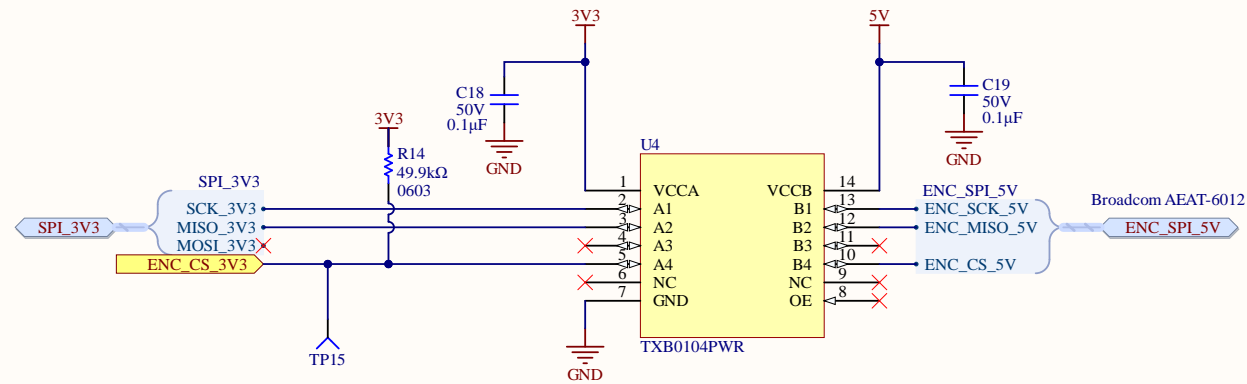
CAN BUS A



CAN BUS B



SPI Encoder Level Shifter



CAN Transceivers

