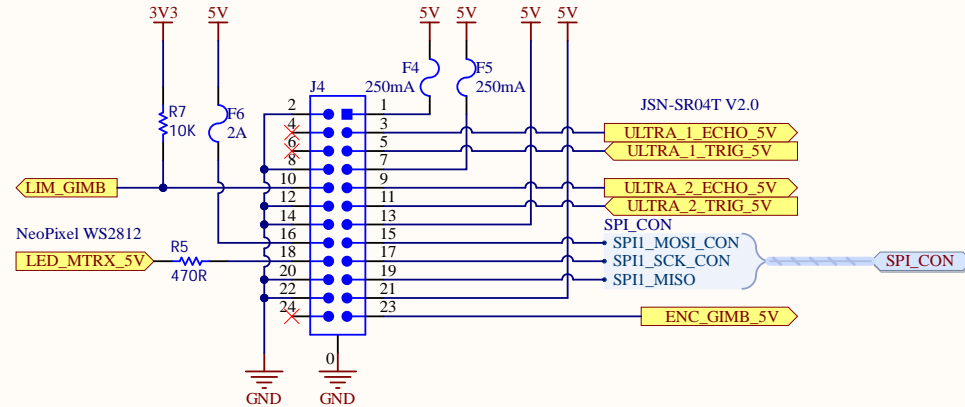


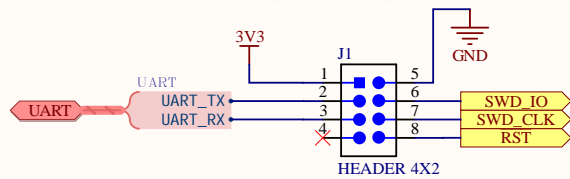
Current Calculations

Green LED voltage drop: 2.2V
 $- I = (3.3 - 2.2V) / 120 = 10.83mA$

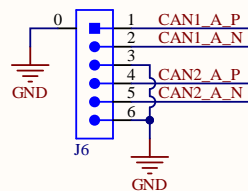
Sensors/Limit Switch/LED Matrix



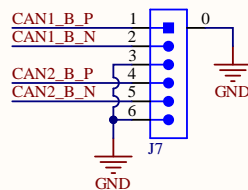
Debug/Programming



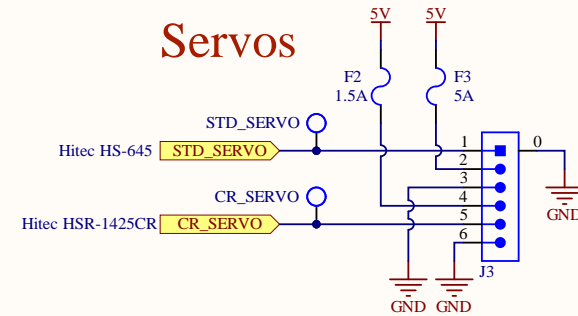
CAN In



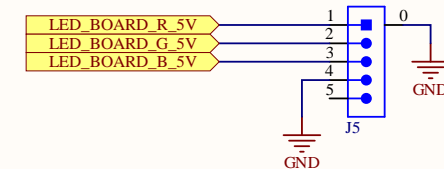
CAN Out



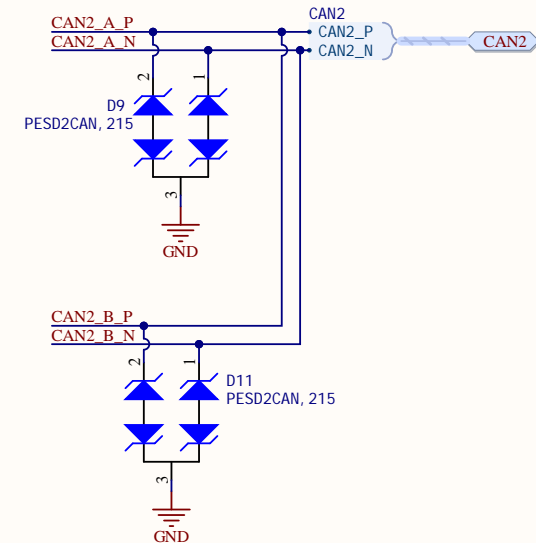
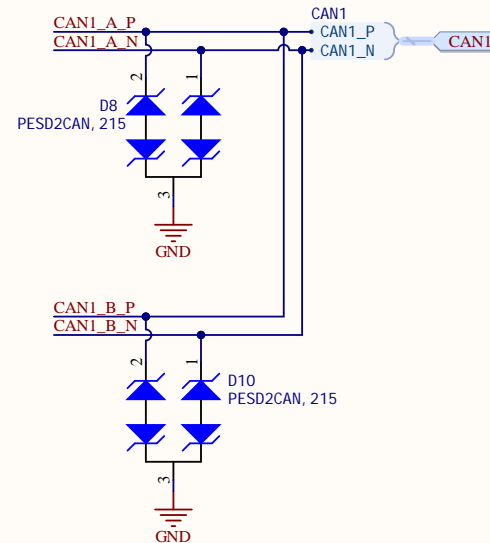
Servos



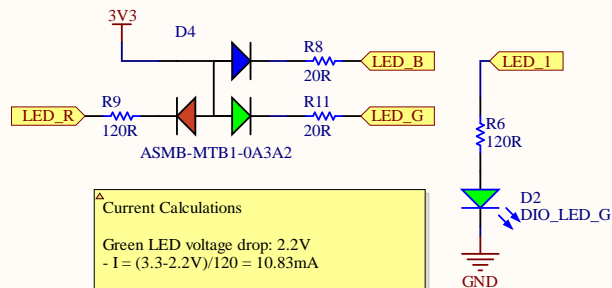
LED Matrix PCB



CAN Protection



Test LEDs

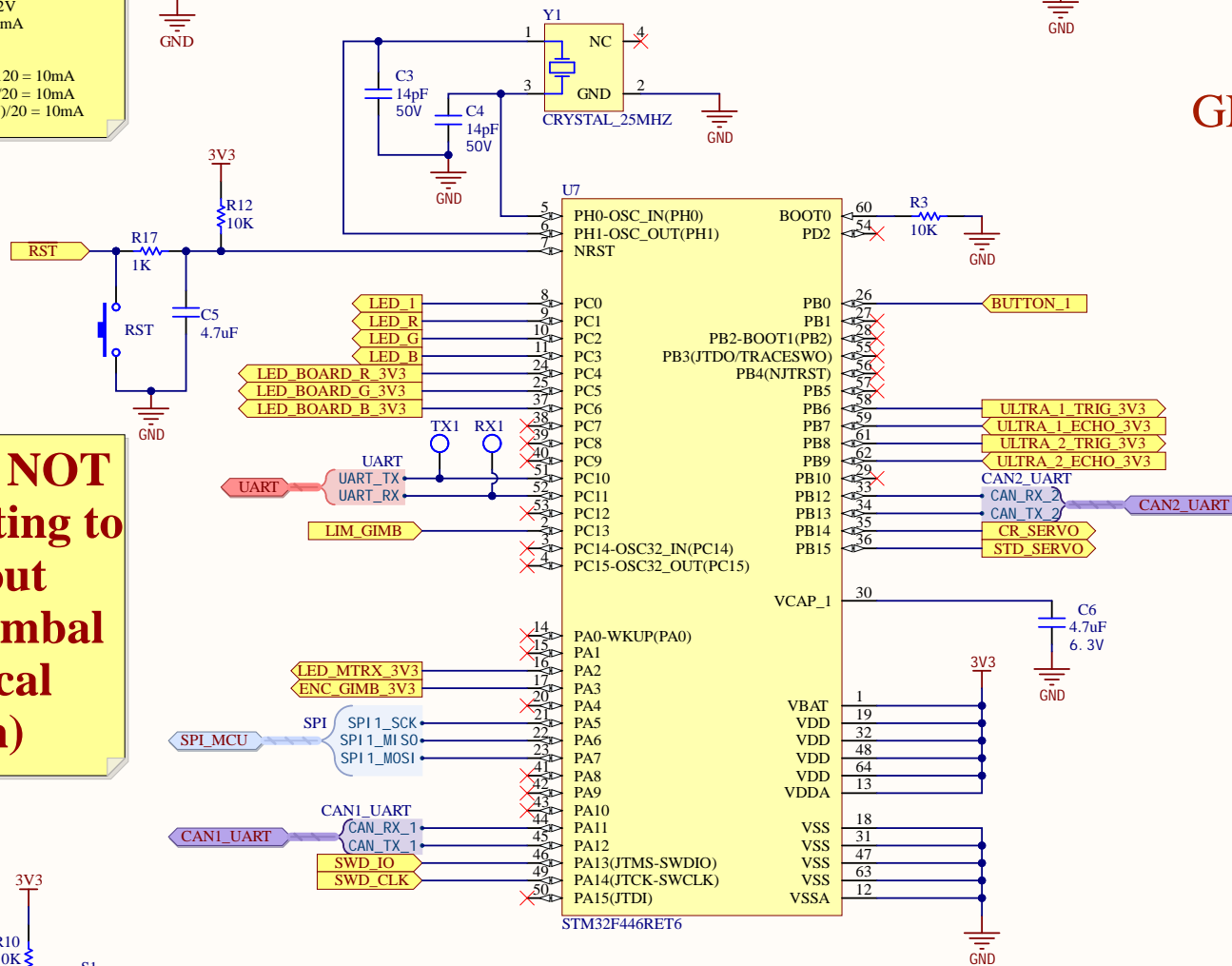


Current Calculations

Green LED voltage drop: 2.2V
 $I = (3.3 - 2.2V) / 120 = 10.83mA$

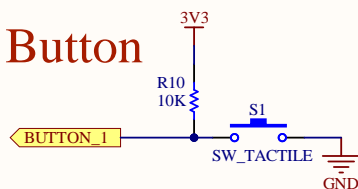
RGB LED voltage drops:
 - Red: 2.1V: $I = (3.3 - 2.1V) / 120 = 10mA$
 - Blue: 3.1V: $I = (3.3 - 3.1V) / 20 = 10mA$
 - Green: 3.1V: $I = (3.3 - 3.1V) / 20 = 10mA$

STM32F446RET6

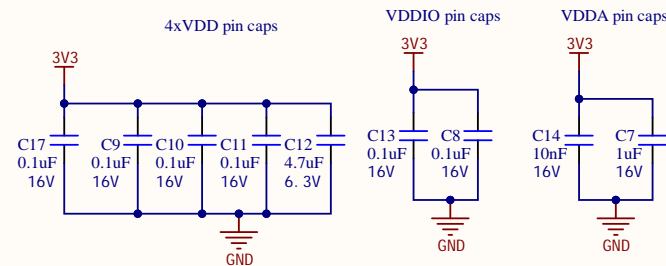


CubeMX is NOT DONE (waiting to hear about potential gimbal mechanical redesign)

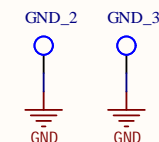
Test Button



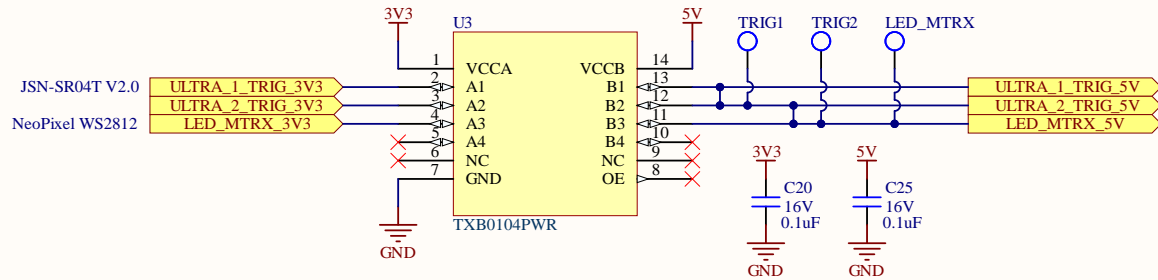
Decoupling Caps



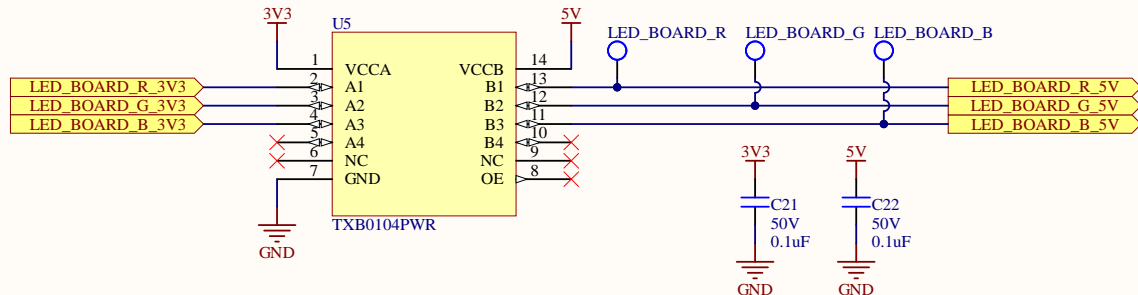
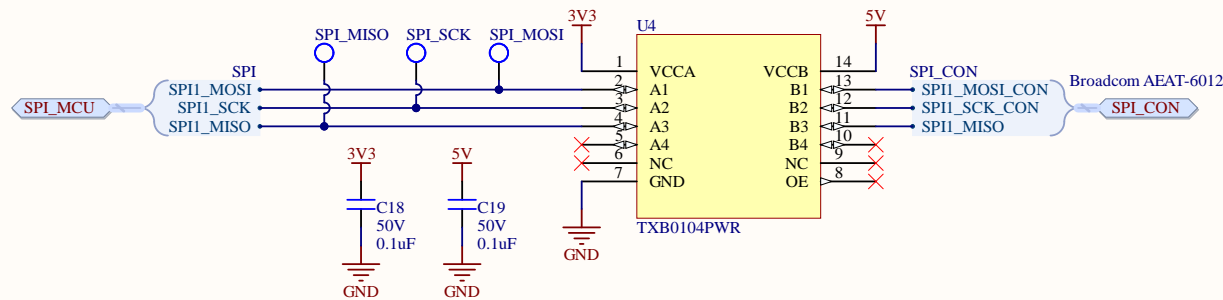
GND Test Points



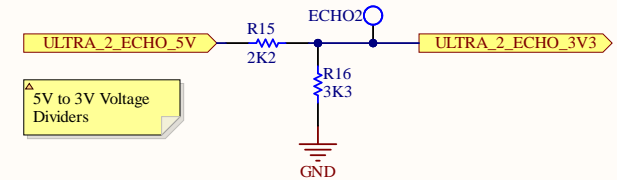
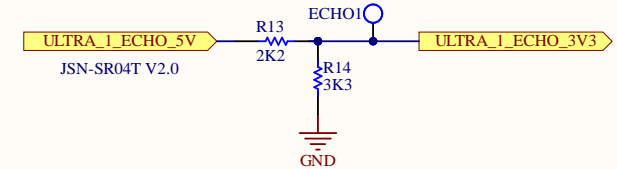
Ultrasonic/LED Matrix Level Shifters



SPI Encoder Level Shifter

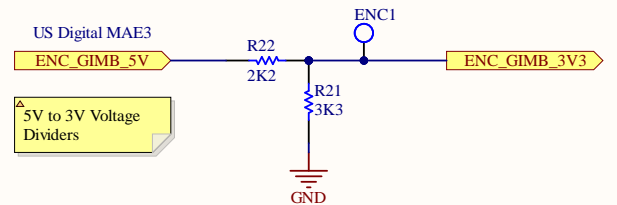


Ultrasonic Voltage Dividers



5V to 3V Voltage Dividers

PWM Encoder Voltage Divider



5V to 3V Voltage Dividers

CAN Transceivers

