Buck Converter

Conn1D
AndersonPP
PV+
+36V
300R
R29
Conn1A
AndersonPP
GND
Green
LED
DG0
GND

30V to 5V and 3.3V Converter

+36V
U5
TSR_1-2450
Vin
GND
Vout
+5V
DG1
LED
green
300
R27
GND

U1
OKI
Vi
GND
Vo
+3.3V
DG2
LED
green
100
R28
C3
10 uF
C1
10 uF
GND

Manual Switches

Manual Servo Switches

+3.3V
SW1 SW_Push
R1 100
DY1 LED Yellow
Servo_1_SW
SW2 SW_Push
R2 100
DY2 LED Yellow
Servo_2_SW
SW3 SW_Push
R3 100
DY3 LED Yellow
Servo_3_SW
SW4 SW_Push
R4 100
DY4 LED Yellow
Servo_4_SW
SW5 SW_Push
R5 100
DY5 LED Yellow
Servo_5_SW
SW6 SW_Push
R6 100
DY6 LED Yellow
Servo_6_SW
SW7 SW_Push
R7 100
DY7 LED Yellow
Servo_7_SW
GND

Digital/Manual Switch

+3.3V
SW9A
SW_DPDT_x2
1
2
3
R9 100
DY8 LED Yellow
Servo_Manual_Control_Left
R10 100
DY9 LED Yellow
Servo_Manual_Control_Right
GND

Micro Controller

Teensy
U3
Teensy4.1_DEV-16771
+3.3V
VIN
Servo_5_PWM
PROGRAM
ON/OFF
Servo_1_PWM
Servo_5_SW
Servo_6_SW
Servo_7_SW
Servo_3_PWM
Servo_4_PWM
Servo_7_PWM
Servo_2_PWM
Servo_6_PWM
Servo_Manual_Control_Left
Servo_Manual_Control_Right
Servo_4_SW
Servo_3_SW
Servo_2_SW
Servo_1_SW
GND

J2
RJ45_LED_Shielded
SH
GND
C2
0.1uF
TX+
TX-
GND
LED
RX-
RX+
J1
6P6C

Servo Connectors

Servo Indicators

+5V
R11 510
Servo_1_PWM
Q1 Q_NMOS_GDS
DB1 LED Blue
R19 300
R12 510
Servo_2_PWM
Q2 Q_NMOS_GDS
DB2 LED Blue
R20 300
R13 510
Servo_3_PWM
Q3 Q_NMOS_GDS
DB3 LED Blue
R21 300
R14 510
Servo_4_PWM
Q4 Q_NMOS_GDS
DB4 LED Blue
R22 300
R15 510
Servo_5_PWM
Q5 Q_NMOS_GDS
DB5 LED Blue
R23 300
R16 510
Servo_6_PWM
Q6 Q_NMOS_GDS
DB6 LED Blue
R24 300
R17 510
Servo_7_PWM
Q7 Q_NMOS_GDS
DB7 LED Blue
R25 300
GND

Molex SL Connectors

+5V
Servo_3_PWM
Servo_2_PWM
Servo_1_PWM
Conn6
Molex_SL_09
Servo_6_PWM
Servo_5_PWM
Servo_4_PWM
Conn7
Molex_SL_09
Servo_7_PWM
Conn8
Molex_SL_03
GND

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File: Gimbal_Board_2023.kicad_sch		
Title:		
Size: A3	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.6)		Id: 1/1