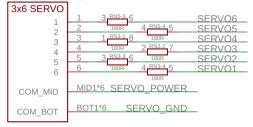
Servo 2040 - RP2040 et al USB-C connector RP2040 MCU MCU1 RP2040 IOVDD&VREG: 1.8-3.3V Need PIO to use all 18 servos at once, as there's USB&ADC: 3.3V only 16 PWM channels **VBUS DVDD: 1.1V** O-8 CC1 CC2 SHLD D+ A7*2 USB DM SFRV01 ADC IOVDD GPI00 SERVO2 IOVDD GPIO1 48 SERVO3 USB IOVDD GPIO2 SERVO4 GPIO3 SERV05 GND VREG IOVDD GPIO4 45 23*2 SERV06 VREG VOUT GPI05 SERV07 DVDD GPIO6 SERVO8 GPI07 XTAL IN SFRV09 XIN GPI08 XTAL OUT 21 SERVO10 XOUT GPIO9 SERVO11 GPIO10 SERVO12 GPIO11 SERVO13 RUN GPIO12 LDO SERVO14 GPIO13 SERVO15 GPIO14 SERVO16 U1 SWDIO GPIO15 24 SWCLK SWCLK SFRV017 VIN GPIO16 SERVO18 VOUT GPIO17 Qw/st connector LED DATA GPIO18 CTRL QSPI SD0 OSPI SD1 12C INT QSPI SD1 GPIO19 NC SW_RESET I2C SDA QSPI SD2 GPIO20 GND I2C_SCL GPIO21 QSPI SD3 NCP115ASN330T2G_ ADC ADDR 0 OSPI SCLK GPIO22 USFR SW OSPI CS GPIO23 ADC ADDR 1 GPIO24 USB DP I2C SDA ADC ADDR 2 SDA USB DP GPIO25 46 ADC0 vcc -27R4 USB DM GPIO26/ADC0 ADC1 GPIO27/ADC1 ADC Multiplexer USB DM ADC2 GPIO28/ADC2 41 SHARED ADC 27R4 **TESTEN** GPIO29/ADC3 PAD GND U5 74LV4051BQ Vcc (digital): 1-6V Vcc (analog): 2-6V Crystal oscillator Flash memory Combined USB boot & user switch SENS1 SENS2 ADC ADDR 0 U4 S0 Y1 ADC ADDR SENS3 S1 Y2 ADC ADDR SENS4 S2 Υ3 IO1/MISO SENS5 QSPI_SD0 Υ4 IO0/MOSI SENS6 QSPI_SCLK Y5 SCK SHARED ADO V SENSE Y6 4 CUR SENSE CS 10k 2 USER SW VEE 103/HOLD NSR0530HT1G GND IO2/WP QSPI_SD2 2MB W25Q16JVUXIQ DATE GENERATED SHEET PIMORONI 01/04/2022 13:50 1/3

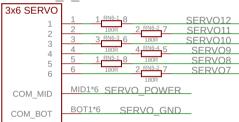
Servo 2040 - Power and Connectors

Servo connectors

SERVO_1_18



SERVO_7_12

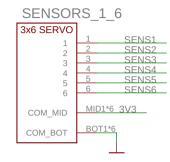


SERVO_13_18

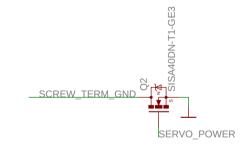




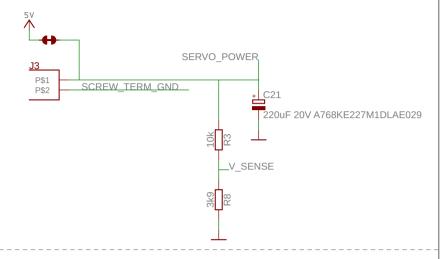
Sensor connectors



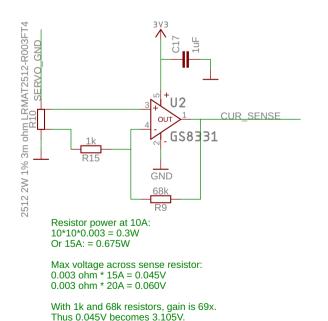
Screw terminal reverse voltage protection



Screw terminal power input & voltage sense



Current sense

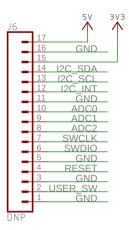


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Servo 2040 - Header & LEDs

Extension header



RGB LEDs

