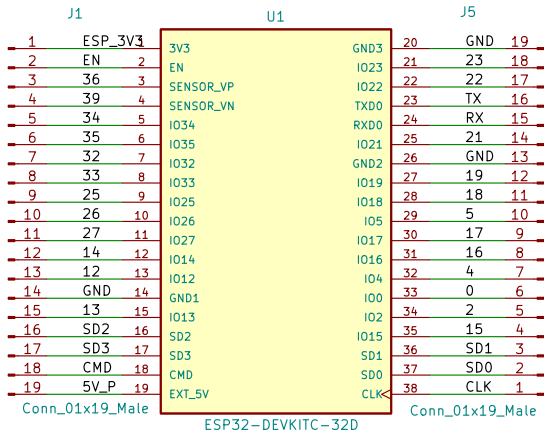


SRA DEVELOPMENT BOARD – 2022

MICROCONTROLLER

ESP32

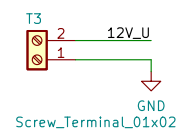


Note: IO0 – Boot Pin

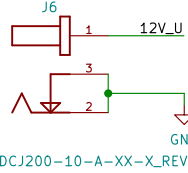
EN – Reset Pin

POWER CIRCUITRY

12V–GND Terminal



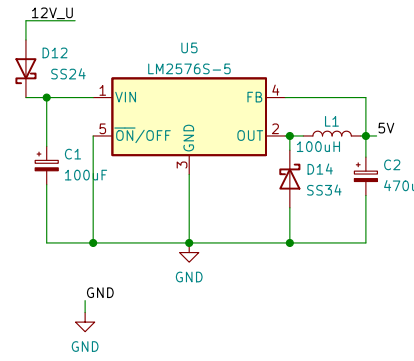
12V–DC Power Jack



DCJ200-10-A-XX-X-REVA

LM2576: Buck Regulator

Converts 12V Input to 5V Output

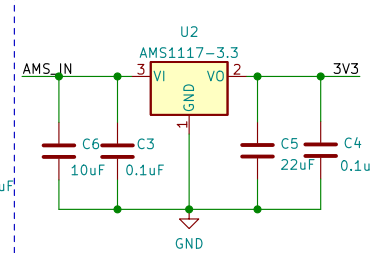


1N5399 <=> SS24 (2A rated Schottky diode)

1N5822 <=> SS34 (3A rated Schottky diode)

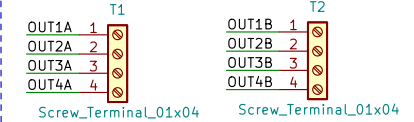
AMS1117: Linear Regulator

Converts 5V Input to 3.3V Output



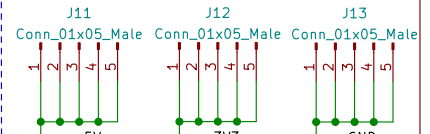
MOTOR PORTS

Output Terminal Blocks



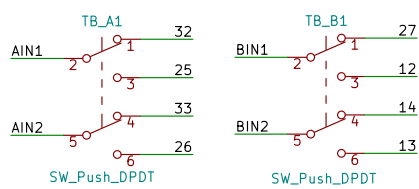
STANDARD VOLTAGE PORTS

5V, 3.3V & GND

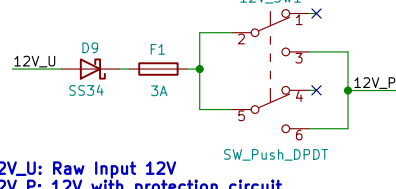


DPDT SWITCHES

Motor Normal–Parallel Mode



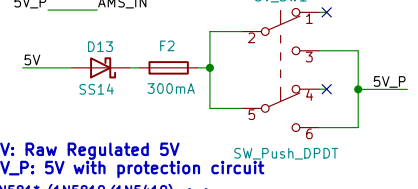
12V Input->Motor Supply



12V_U: Raw Input 12V
12V_P: 12V with protection circuit
1N5822 <=> SS34 (3A Schottky diode)

RUEF160 PTC Resettable Fuse
Ltrip = 3.2A; Lhold = 1.6A

5V Regulated->MCU Supply

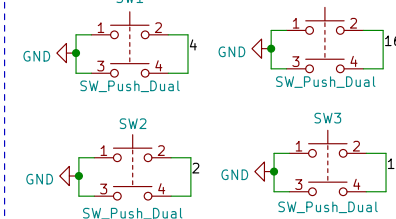


5V: Raw Regulated 5V
5V_P: 5V with protection circuit
1N581* (1N5819/1N5419) <=>
SS15 (VF=0.7V)
SS12 (VF=0.5V)
(1A Schottky rectifier)

RXEF050 PTC Resettable Fuse
Ltrip = 1A; Lhold = 0.5A

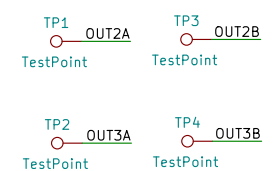
PUSH BUTTONS

Motor Forward–Backward

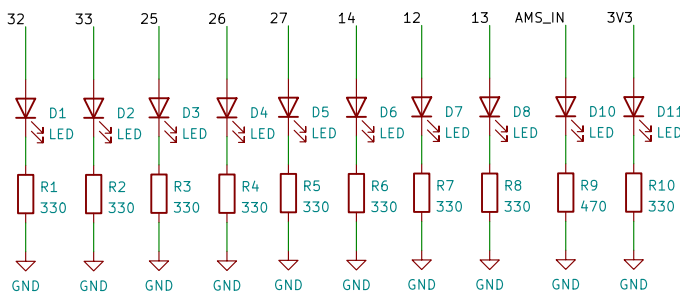


TESTPOINTS

Motor Output Pins

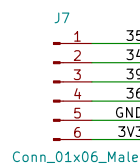


LED ARRAY

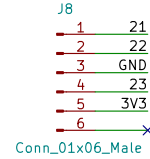


SENSOR PORTS (JST CONN.)

LSA

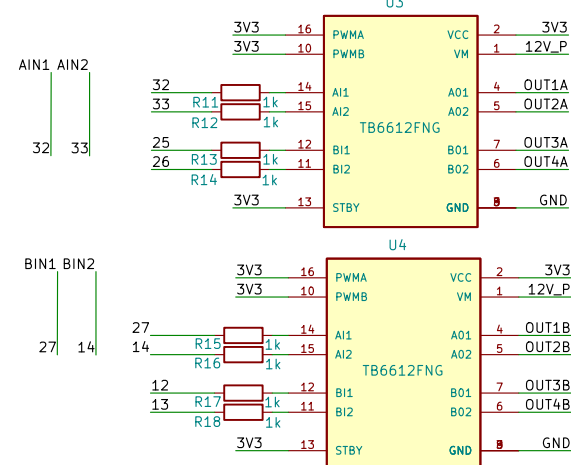


MPU



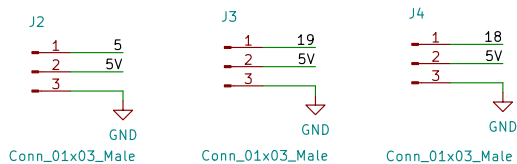
MOTOR DRIVER

TB6612FNG



SERVO PORTS

3–Pin 5V Servos



DRILLS

Mounting Holes



OLED PORT



GPIO 21 – SCL
GPIO 22 – SDA
GPIO 23 – INT

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Title:

Size: User Date:
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