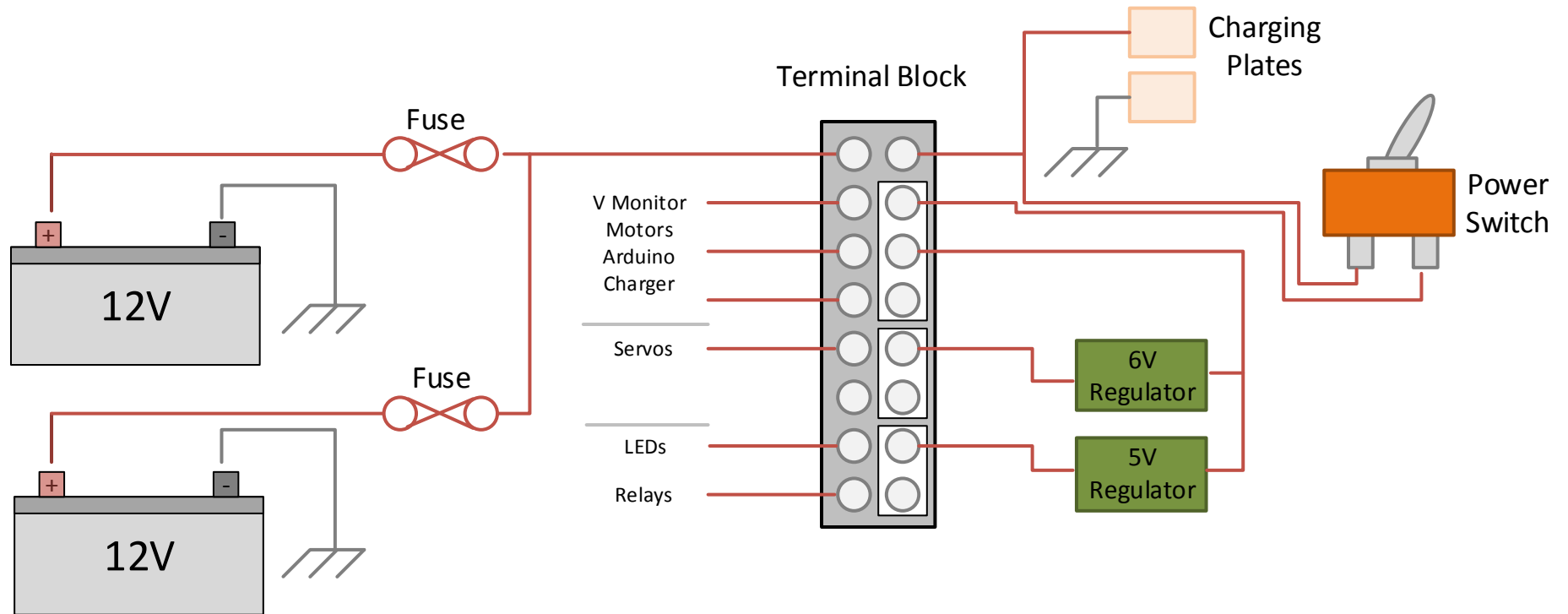




RP2W General Schematic - Power

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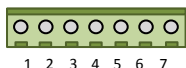


RP2W General Schematic - Controls

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Relay Digital Inputs

- 1 – Channel 1 – Arduino Pin 27
- 2 – Channel 2 – Arduino Pin 29
- 3 – Channel 3 – Arduino Pin 31
- 4 – Channel 4 – Arduino Pin 33
- 5 – Channel 5 – Unused
- 6 – Channel 6 – Unused
- 7 – Channel 7 – Unused



Relay Outputs

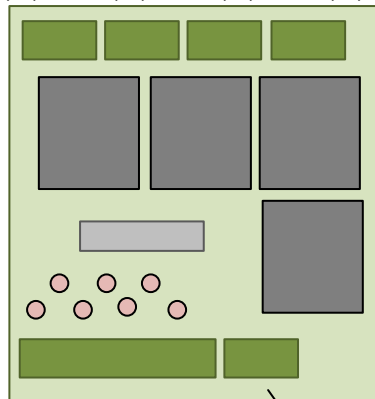
- 1 – Common
- 2 – Normally Closed
- 3 – Normally Open

*NOTE: Relays are rated for 5V



SDR 4 Relay Board

Relay 1 Relay 2 Relay 3 Relay 4
1, 2, 3 1, 2, 3 1, 2, 3 1, 2, 3



Digital Inputs

Power Input
(+5V, Ground)



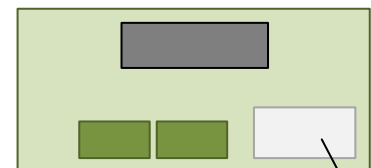
PWM Digital Inputs Left

D – Direction (D4, Blue)
P – Pulse (D5, Orange)
B – Brake (Unused)
G – Ground (Unused)

PWM Digital Inputs Right

D – Direction (D2, White)
P – Pulse (D3, Yellow)
B – Brake (Unused)
G – Ground (Unused)

SDR PWM Motor Controller



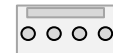
Input Power
(24V/12V, G)



Motor Output
(M1, M2)



Digital Inputs
D P B G



NOTE: Motor outputs are reverse on left motor

Misc Sensors

Voltage Monitor – AN1
(10k-1k voltage divider)

Front Sonar – AN2
Rear Sonar – AN3

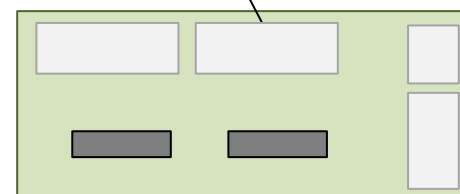
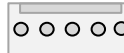
Bumper – AN3
(10k pull-up)

Encoder Interface

SPI Clock – (Orange)
MISO – (Yellow)
MOSI – (Green)
SS1 – (D47, Brown)
SS2 – (D49, Grey)

Encoder Inputs

G V A B I



Encoder Buffer

