

Single-Axis Joystick Control Box Wiring Diagram

SG90 Servo Motor

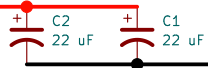
Servo wires:
Orange – Signal
Red – 5V
Brown – GND



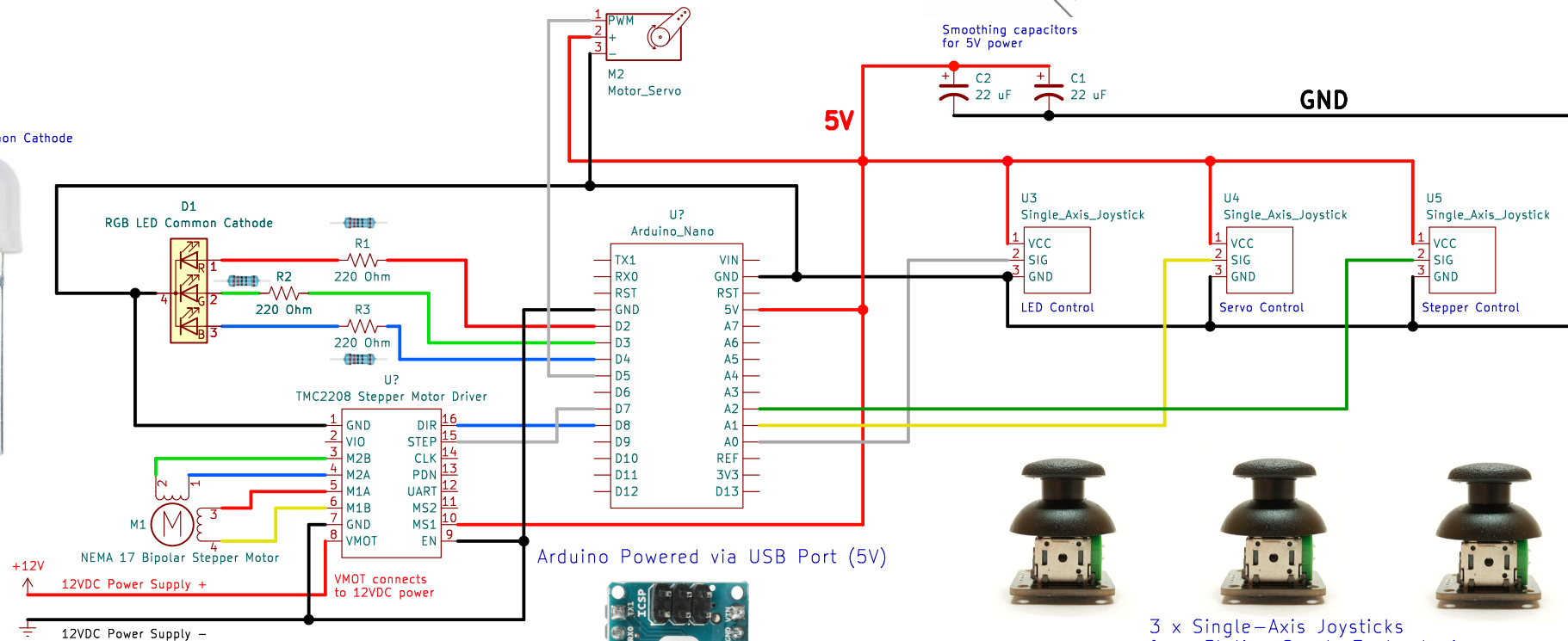
Electrolytic Capacitor



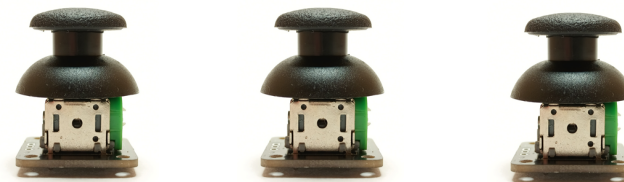
Smoothing capacitors for 5V power



RGB LED Common Cathode



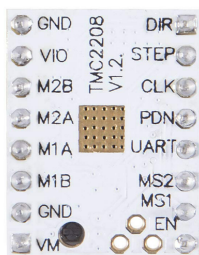
Arduino Powered via USB Port (5V)



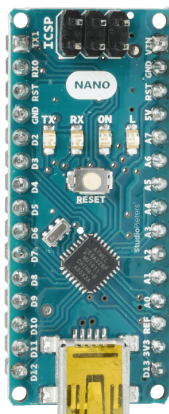
3 x Single-Axis Joysticks from Elation Sports Technologies



NEMA 17 Bipolar Stepper Motor



TMC2208 Stepper Motor Driver



Arduino Nano

- Component connections:
- LED red – D2
 - LED green – D3
 - LED blue – D4
 - Stepper STEP – D7
 - Stepper DIR – D8
 - Servo – 5
 - Joystick 1 – A0
 - Joystick 2 – A1
 - Joystick 3 – A2