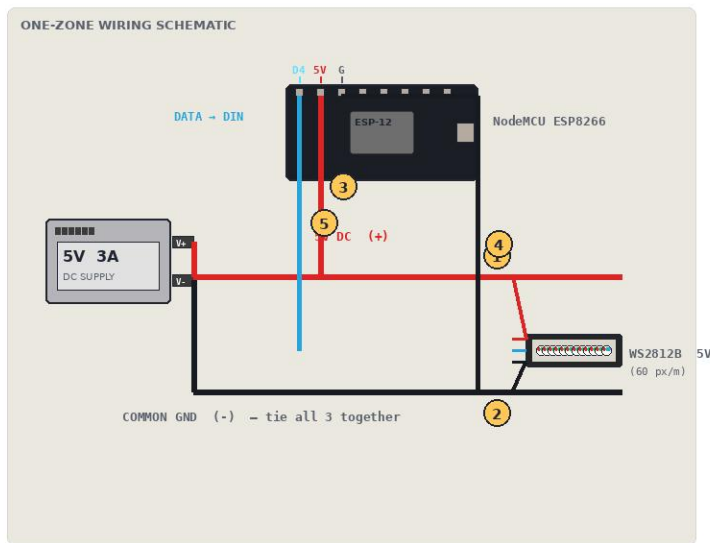


ESP8266 EVENT LIGHTING CONTROL

Plug & play event lighting — sync lights to the moment.

1 THE 5 CONNECTIONS YOU ACTUALLY MAKE



- 1 PSU V+ → LED strip + (5V DC rail — separate feed if >30 LEDs)
- 2 PSU V- → LED strip - AND ESP GND (common ground — #1 skipped wire)
- 3 PSU V+ → ESP 5V / VIN (powers the board)
- 4 PSU V- → ESP GND (ties board ground to PSU ground)
- 5 ESP D4 → LED strip DIN (data signal — single wire)

3 NODEMCU PIN CHEAT STRIP — JUST 4 PINS

Ignore the other 26 pins on the board. You only touch these four.

D4 = GPIO2 LED strip DATA (or relay IN)	5V = VIN Power IN (from PSU +)	GND = G Ground (common bus)	3.3V = - Leave alone (this build)
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PRO TIP — READY TO LEVEL UP?

Once your 1-zone build works, the full pack unlocks four more things you can't get here:

1. **3 control modes** — AP web (what you have) + phone app + DMX sync
2. **Multi-zone** — wire 1 to 10 LED strips or relays from one board
3. **Scenes + timers** — schedule color cycles, music-reactive pulses, alarm fades
4. **Full parts list** — every BOM with links, specs, voltage math, fuse sizing

FEATURE	FREE (this)	PACK (\$19)
Zones	1	1 → 10
Control modes	AP web only	AP + app + DMX
Firmware	1 .ino	3 .ino, adjustable
Guide	1 page	28 pages + troubleshooting
Wiring diagrams	1 mini	6 full-color labeled
Parts list	—	Full CSV + PDF + links

Same board. Same wiring. Same \$5 of parts.

— just the next 2 hours of the journey.

Grab the pack: jackalope86.gumroad.com

Get stuck on the build?

Reply to the email you got this from — I read every one.

Free firmware, free cheat sheet, free help — pay nothing to ship.

— Jack | kachangsia.com | 19 years in the field.

2 UNIVERSAL WIRE COLOR CODE

Same scheme pros use (US + EU/UK). Color name printed under each swatch — works in B&W.

RED = DC +	BLACK = GND / -	GREEN-YELLOW = earth	CYAN / YELLOW = data / signal

4 6 BEGINNER GOTCHAS — AND THE ONE-LINE FIX



Lights flash white / random

FIX:
Data wire on the wrong pin — use D4.



Only the first LED works

FIX:
Too few common grounds — tie all GNDs together.



ESP won't boot

FIX:
Power too weak — use a real 5V/1A+ supply, not laptop USB.



"EventLights" WiFi missing

FIX:
Hold FLASH button, power-cycle the board, wait 5 sec.



Strip dims at the far end

FIX:
Voltage drop — inject 5V at BOTH ends on long strips.



Relay clicks but no light

FIX:
Load side wired wrong — use COM and NO, not NC.

RECOMMENDED GEAR — STARTER BOM (~\$5 OF PARTS)

All from common suppliers (AliExpress / Amazon / local electronics shop). Approximate USD.

PART	QTY	APPROX	WHERE TO GET
NodeMCU V3 ESP8266	1	\$3	Amazon, AliExpress
WS2812B LED strip (60 px/m)	1 m	\$2	Amazon, AliExpress
5V 3A DC power supply	1	\$6	Amazon (meanwell S-60-5)
Jumper wires (M-F, M-M)	10+	\$1	Amazon, local hobby
Micro-USB cable (data)	1	\$2	Old phone charger

Tip: search the exact part number on AliExpress / LCSC / Digi-Key — the same modules are everywhere. Anything labeled "5V" works with this cheat sheet.

BUILD CHECKLIST

- ✓ Wire PSU V+/V- to LED strip + and -
- ✓ Wire PSU V+/V- to ESP 5V and GND
- ✓ Wire ESP D4 to LED strip DIN
- ✓ Flash the firmware (.ino)
- ✓ Power up, connect to "EventLights" WiFi
- ✓ Open 192.168.4.1, press a button

WHY THIS WORKS

Common ground is the secret — the PSU and ESP share a wire so they speak the same "0 volts" reference.

D4 (GPIO2) is the only pin that boots the ESP8266 cleanly + outputs PWM-style data.

Single data wire = WS2812B's whole protocol — each LED listens + passes the rest on.