Pico 2 bay controller - wired schematic (Rev C, stripboard version)

Pico powered over USB from a motherboard header. GPIOs are 3.3 V only. Host link, config and firmware updates all over the same USB cable.
Fan header +12V pins (pin 2 of J4-J7) are joined by the heavy 12 V bus wire under the board; GND (pin 1) likewise, both to J2.
Fail-safe strap JP1: jumper 1-2 = fans with inverted PWM (0 % = full speed) run at full speed if the Pico is off or hung; jumper 2-3 = normal PWM fans.

LED stages shown for a motherboard whose + pin is the driven one (high = lit). If the - pin is the switched one, fit the PNP option (see the KiCad Rev C sheet).
Both LED stages are wired-OR: the motherboard signal lights the ring directly through Q7/Q9, and the Pico (Q8/Q10) can also light it. Dividers give the Pico a 3.3 V-safe copy.

