LIGHTNING DETECTOR WIRING

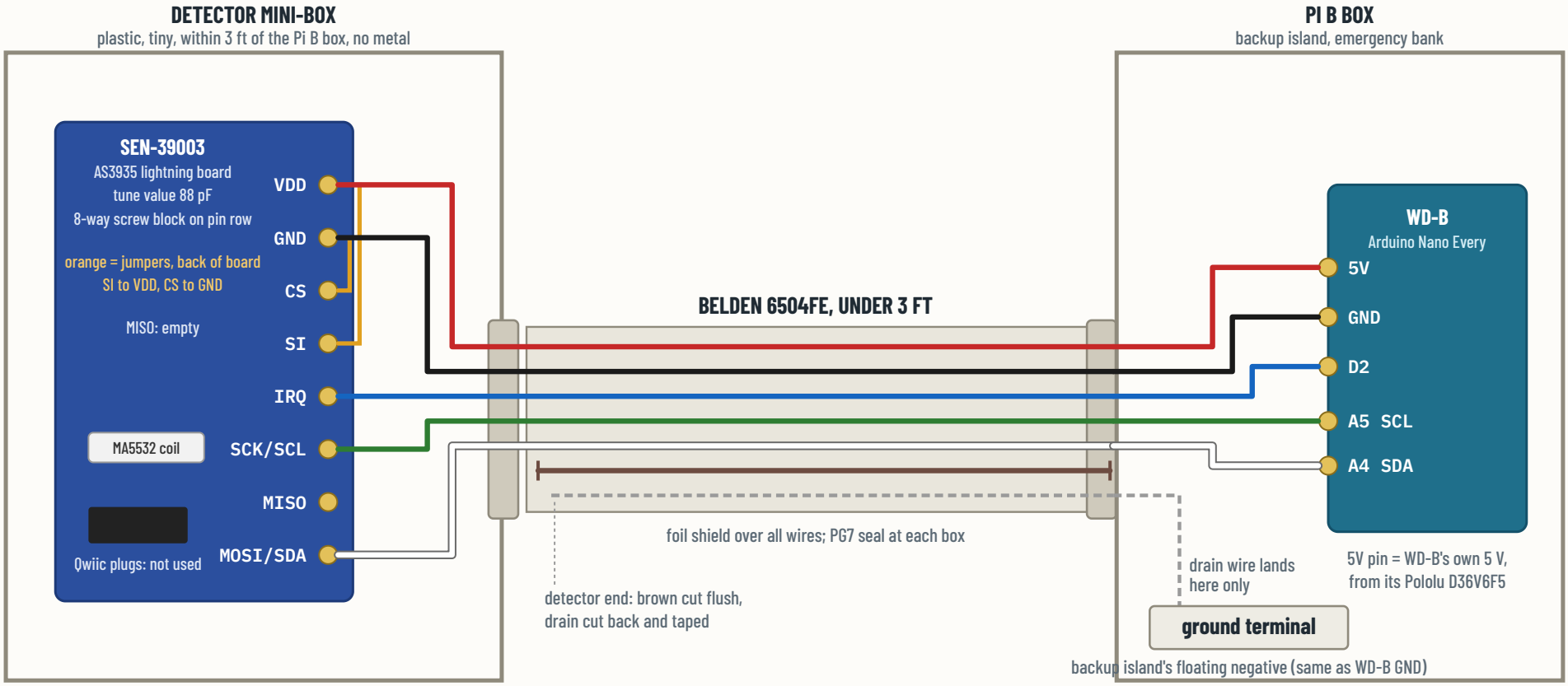
The Playing With Fusion lightning board in its tiny plastic box, wired to WD-B (the backup watchdog Arduino) in the Pi B box. Runs at 5 V straight, no level shifter. Wires drawn in their real colors.

BOARD
Playing With Fusion SEN-39003 (AS3935)

CABLE
Belden 6504FE, 22 AWG, 6 wires + drain, under 3 ft

DATE
2026-10-14

HOME
Pending Amendments, lightning detector item



Wire by wire

COLOR	BOARD PIN	WD-B PIN	CARRIES
Red	VDD	5V	power
Black	GND	GND	ground
Blue	IRQ	D2	"strike heard" signal
Green	SCK/SCL	A5	clock
White	MOSI/SDA	A4	data
Brown	none	none	spare: cut flush both ends
Drain (bare)	none: cut back, taped	ground terminal	shield

At the board

1. Solder an 8-way 0.1 in screw terminal block onto the pin row (one of the Hxchen 20-pack on hand).
2. Two short jumper wires soldered on the back of the board: SI to VDD (picks I2C), CS to GND. Not under the screws. A dab of West epoxy or hot glue (high-temp sticks) over them is fine: clean the flux off first, and keep it off the coil end of the board.
3. Conformal coat the board, like every board on the boat.
4. Cable wires under the screws on ferrules, one wire per screw. Check the screws tight again a week or two later.
5. MISO and both Qwiic plugs stay empty.
6. Mount on nylon 4-40 screws. Nothing metal touches the board or box.

For the software

1. I2C address 0x03.
2. Tune value 88 pF (register value 11), from the bag label.

Still open

1. The surge diode (TVS) the Compute Bay Plan puts on this lead: a 5 V part, not yet picked. It goes across red and black inside the Pi B box.
2. D2 is Claude's pick for the strike signal; no WD-B pin plan exists yet.