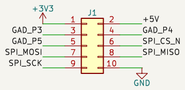
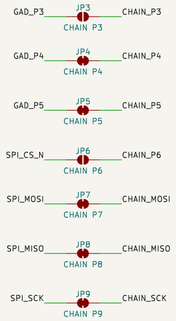
## 01 / GADGETEER S SOCKET, CHAIN JUMPERS AND OPTIONAL DRDY ROUTE



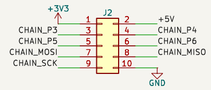

GADGETEER S IN



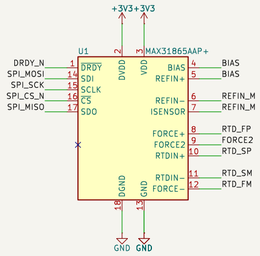


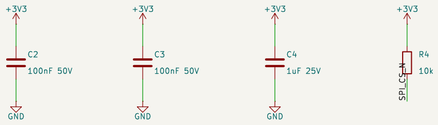





GADGETEER S CHAIN

## 02 / MAX31865 AND SUPPLY DECOUPLING




Wire modes (T1 F+, T2 RTD+, T3 RTD−, T4 F−):

4-wire (factory default): JP1 open, JP2 open, JP10 1–2 (GND), config D4 = 0.

3-wire: JP1 open, JP2 bridged, JP10 cut 1–2 and bridge 2–3 (FORCE+), config D4 = 1.

2-wire: JP1 bridged, JP2 bridged, JP10 1–2 (GND), config D4 = 0.

FORCE2 (U1.9) must never float: JP10 is bridged 1–2 by copper at delivery.

Chain policy (D4): J2 repeats J1. Pins 1, 2, 10 are direct. JP3 (DRDY/pin 3) and JP6 (CS) are open by default,

JP4, JP5, JP7, JP8, JP9 are bridged (cut to isolate). One CS per board: run several boards with the SPI Hub.

Socket map (D1, CLAUDE.md S row): 1 +3V3, 2 +5V (not used locally), 3 GPIO? (DRDY via JP11), 4/5 GPIO pass-through,

6 CS, 7 MOSI, 8 MISO, 9 SCK, 10 GND. WARNING: the physical V2 Prime may differ (5 V on pin 8, 3V3 on pin 9); unresolved.

No external power input, so the 12–24 V 5V-source jumper rule does not apply. PT100 only, RREF 400R 0.1%.

CERN-OHL-S-2.0 | KiCad only | black solder mask, white silkscreen | v13 CAD repair study, not physically qualified.

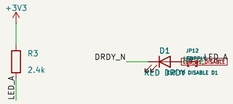
## 03 / PT100 TERMINAL, REFERENCE RESISTOR AND 2/3/4-WIRE JUMPERS




PT100 F+ RTD+ RTD− F−



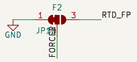

## 04 / DRDY INDICATOR



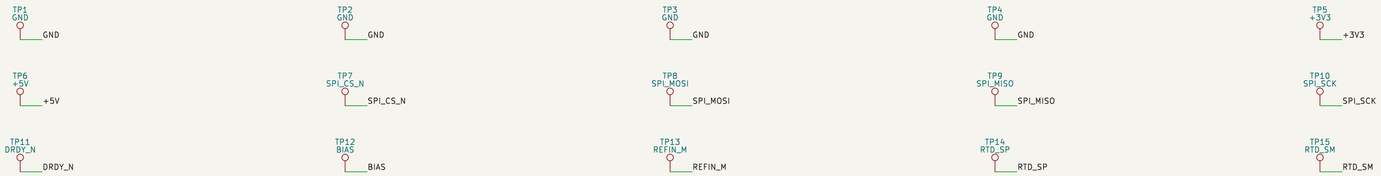







## DIAGNOSTIC PADS / fabricated copper, not purchased components




Generated from design-contract.json by tools/create_schematic.py

PT100 only; MAX31865 over Gadgeteer S socket

**Smoothieware / CERN-OHL-S-2.0**

Sheet: /

File: spi-pt100.kicad_sch

***Title: Smoothie SPI PT100 amplifier***

| Size: A2 | Date: 2026-09-25 | **Rev: v13** |
|---|---|---|
| KiCad E.D.A. 9.0.8 | | Id: 1/1 |