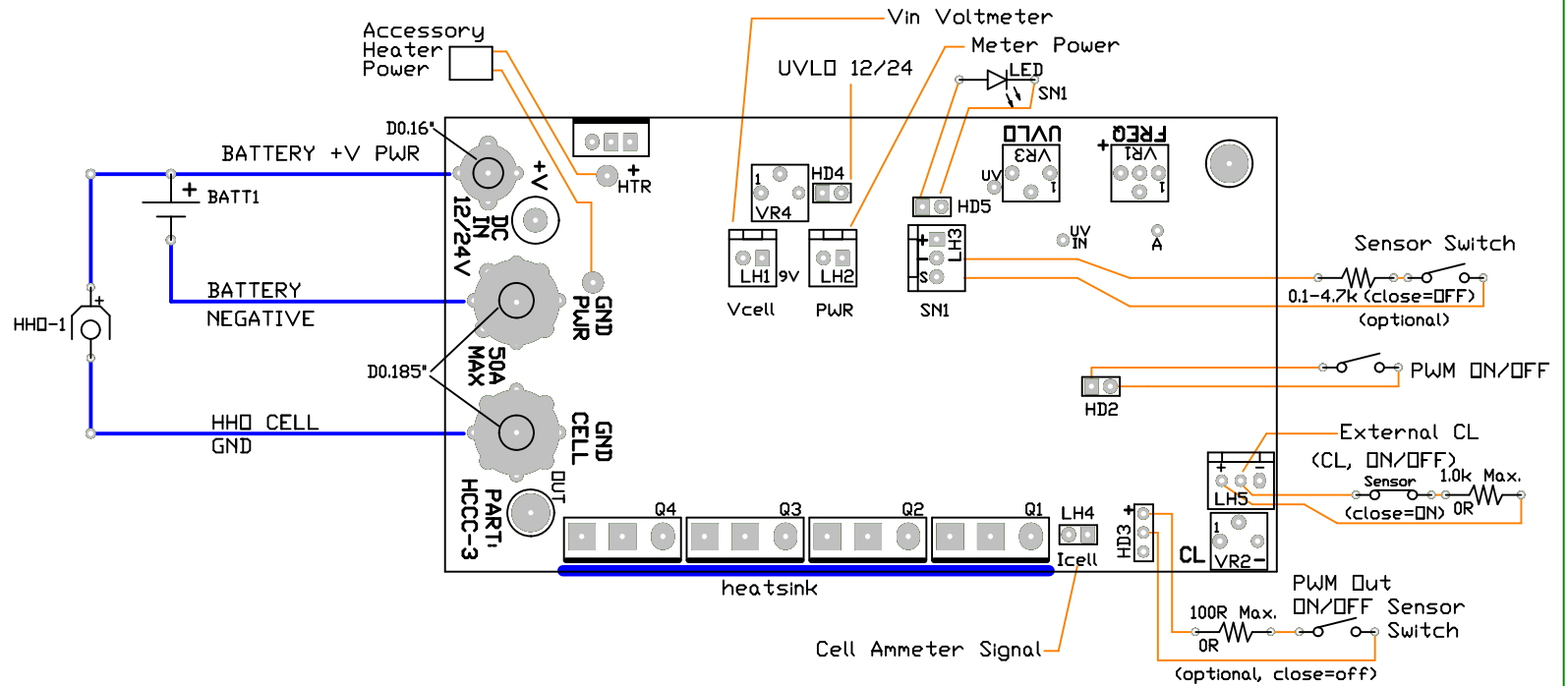


## HHD CCPWM Module Wiring



### Adjustment Controls:

- VR1 FREQ: PWM frequency setting.  
Measure operating frequency at test point A.
- VR2 CL: Current limit, constant current level, 0-50A  
Adjust to ammeter reading and reference.
- VR3 UVLO: Under-voltage lock-out, auto ON/OFF.  
Set 14Vin, measure V at UV IN, set VR2 for OFF  
adjust for V at UV=UV IN for ON, OFF~13.6V
- HD4 UVLO: 12/24 Vin mode selection.  
Header CLOSED=12V heater out ON/OFF.  
Header OPEN=24V heater out ON/OFF.
- VR4 (R22): Good battery power. Heater. Auto ON/OFF.  
Set input to 12.5V, adjust VR4 for output ON  
then adjust to OFF, ON~13.2V  
Not affected by CCPWM output  
P-CH MOSFET 12A output. Vin=Vout

ALL VOLTAGE SENSING THROUGH +V DC IN TERMINAL

### Connectors:

- LH1 Vcell: HHD cell voltage measurement  
12V cell: 9-14V, 24V cell: 18-28V
- LH2: Ammeter power (9V)  
Connect to ammeter power
- LH3 SN1: Sensor input. Ground=PWM OFF, delayed  
Liquid level sensor. 9V power.
- LH4 Icell: Cell current measurement signal.  
Connect to ammeter. 0-100mV signal.
- LH5 CL: External current control. 0-5V 1mA.  
Sensor NC ON/OFF switch
- HD3: PWM Out ON/OFF control.  
SPST switch/sensor, open=ON.
- HD5: Sensor status LED. LED ON=low liquid level.
- HD2: PWM ON/OFF SWITCH

(C)2018	Onstate Tech
Onstate Tech. CCPWM 12/24V 50A, 750W HHD circuit	

Description: HHD Constant Current PWM Contoller Module

Date: June 19, 2020

Part Code: CIR-HCCC-3

Rev. 1

File Name: HCCC-3 V1 CCPWM wiring

Drawn By: D. H.

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