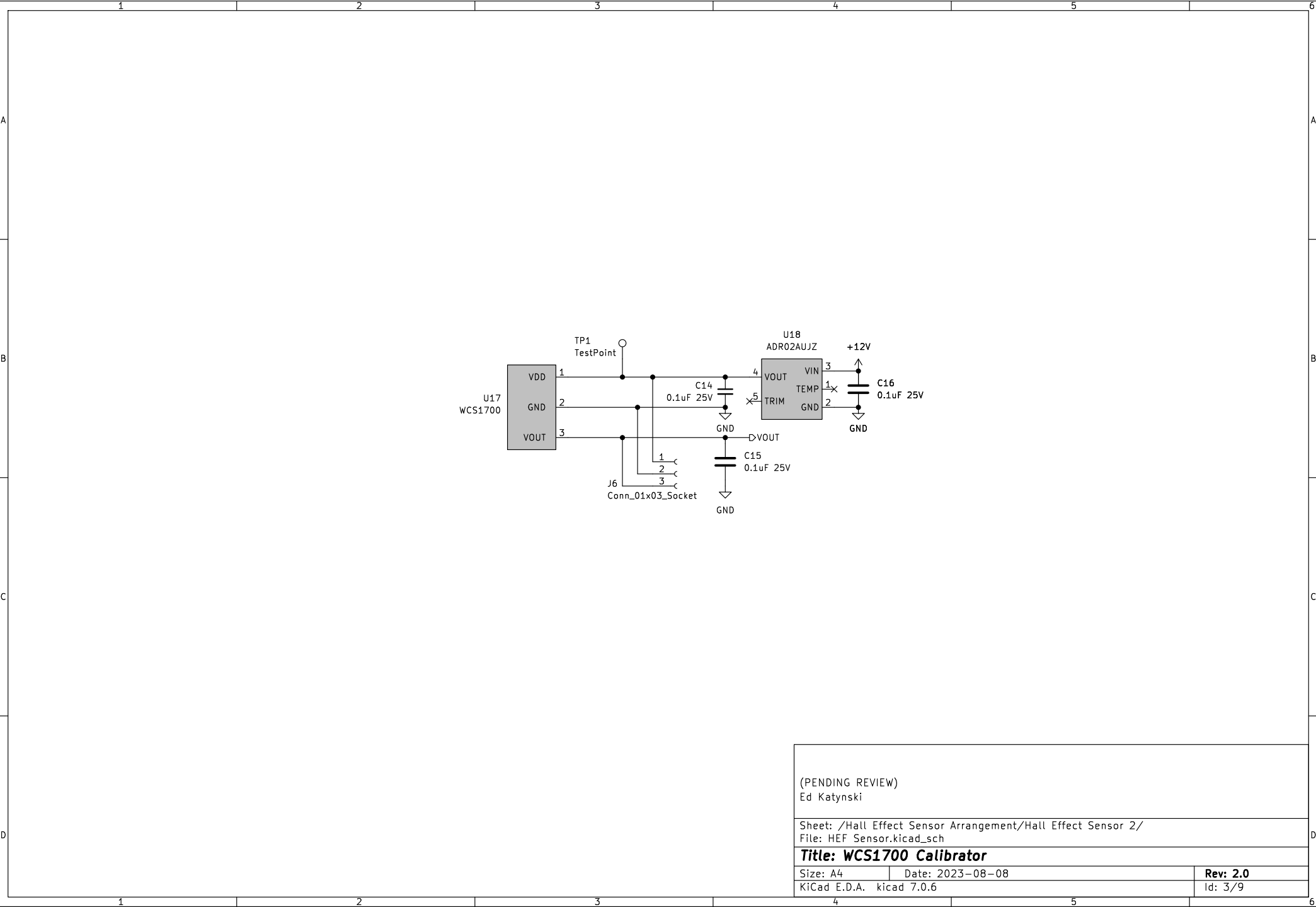


(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/  
File: HEf\_Arrangement.kicad\_sch

**Title: WCS1700 Calibrator**

Size: A4	Date: 2023-08-08	Rev: 2.0
KiCad E.D.A. kicad 7.0.6	Id: 2/9	

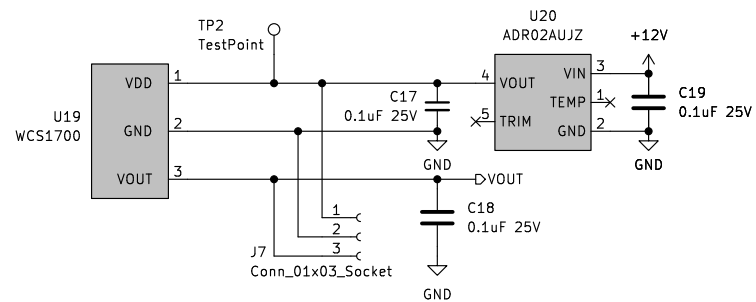


(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/Hall Effect Sensor 2/  
File: HEF Sensor.kicad\_sch

**Title: WCS1700 Calibrator**

Size: A4	Date: 2023-08-08	Rev: 2.0
KiCad E.D.A. kicad 7.0.6		Id: 3/9



(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/Hall Effect Sensor 1/  
File: HEF Sensor.kicad\_sch

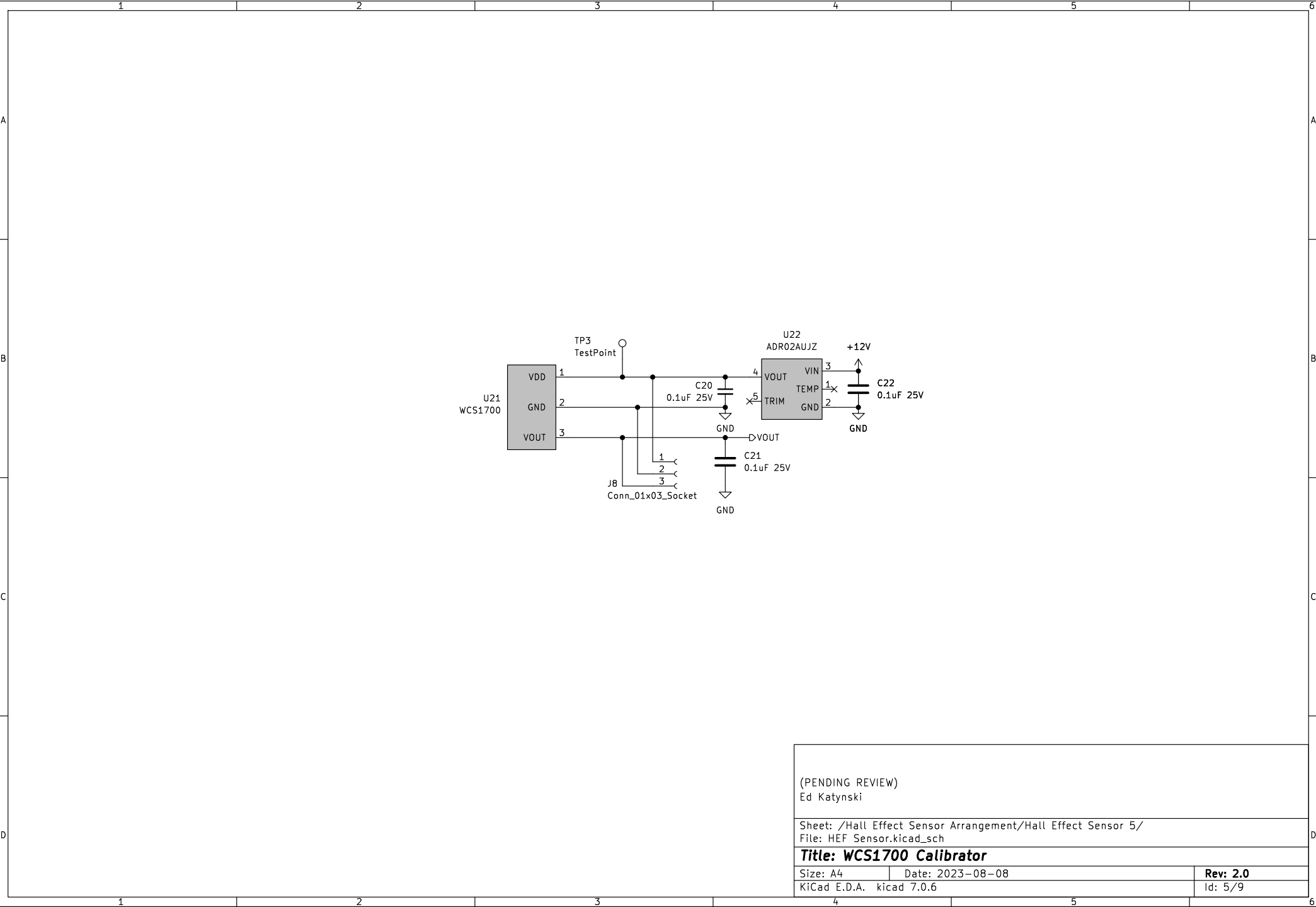
**Title: WCS1700 Calibrator**

Size: A4 Date: 2023-08-08

KiCad E.D.A. kicad 7.0.6

**Rev: 2.0**

Id: 4/9



(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/Hall Effect Sensor 5/  
File: HEF Sensor.kicad\_sch

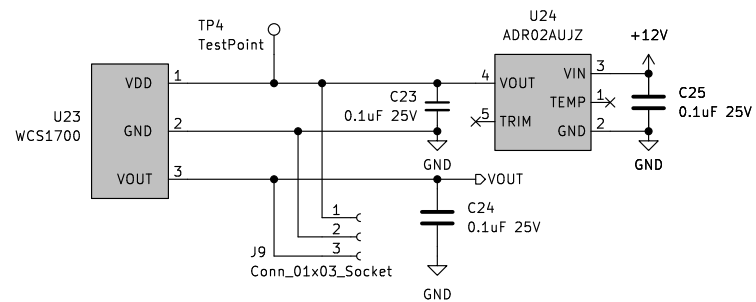
**Title: WCS1700 Calibrator**

Size: A4 Date: 2023-08-08

KiCad E.D.A. kicad 7.0.6

**Rev: 2.0**

Id: 5/9

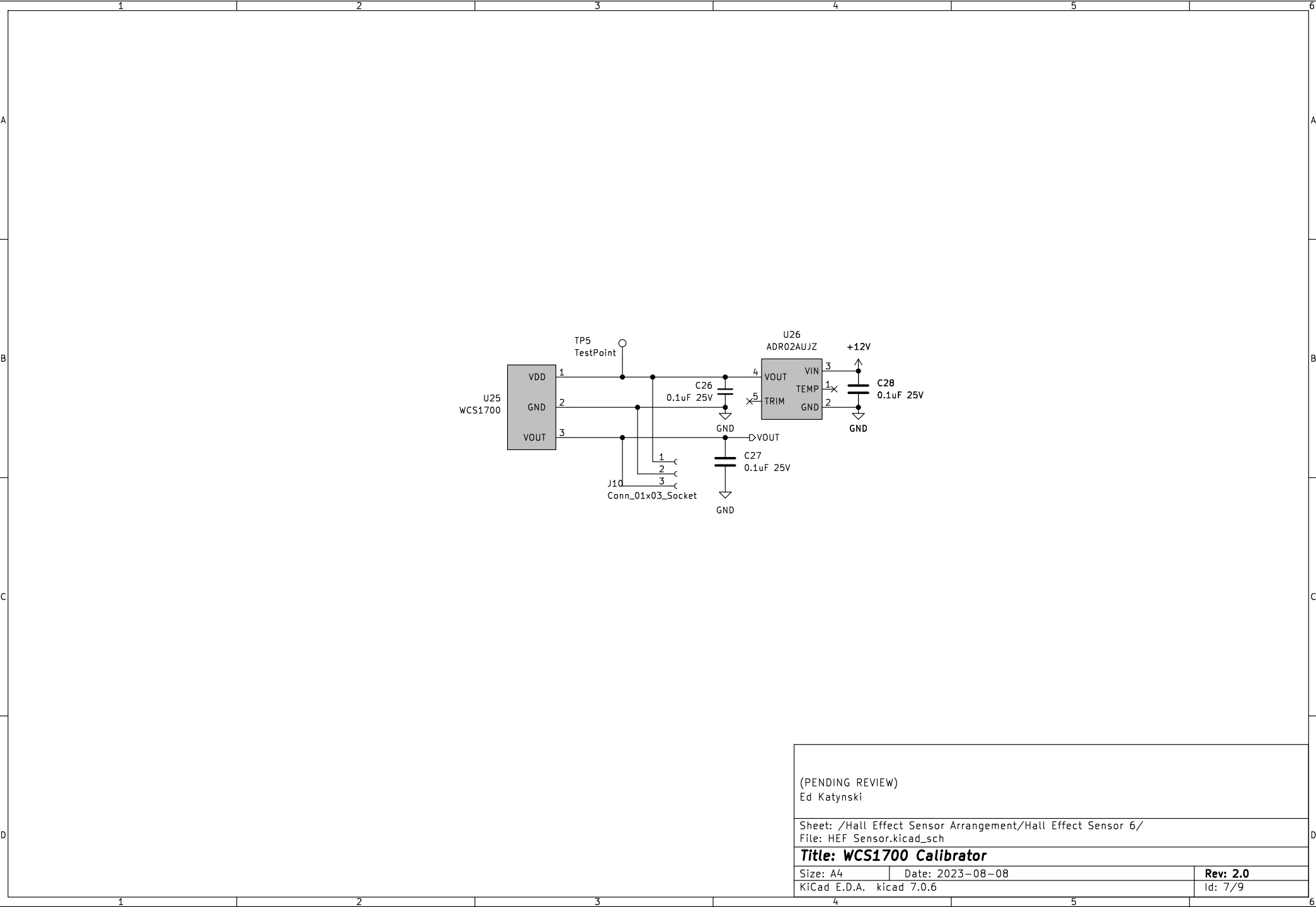


(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/Hall Effect Sensor 3/  
File: HEF Sensor.kicad\_sch

**Title: WCS1700 Calibrator**

Size: A4	Date: 2023-08-08	Rev: 2.0
KiCad E.D.A. kicad 7.0.6	Id: 6/9	



(PENDING REVIEW)  
Ed Katynski

Sheet: /Hall Effect Sensor Arrangement/Hall Effect Sensor 6/  
File: HEF Sensor.kicad\_sch

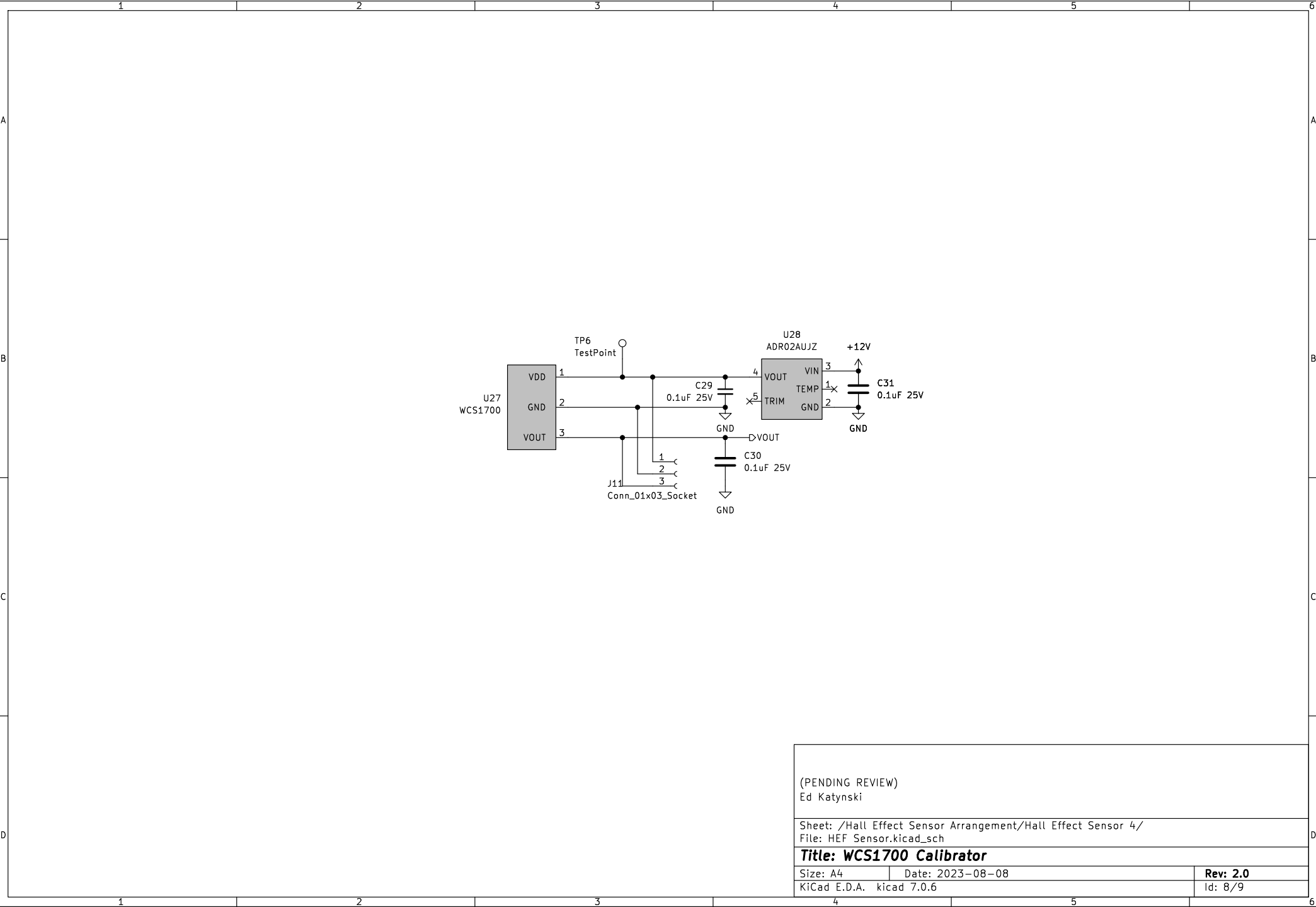
**Title: WCS1700 Calibrator**

Size: A4 Date: 2023-08-08

KiCad E.D.A. kicad 7.0.6

**Rev: 2.0**

Id: 7/9





# REVISION NOTES

2.0:

- Schematic rework for clarity and added revision notes.
- Changed +5V reference for hall effect sensors
- Added LED indicators and name/date placard in silkscreen
- Reduced the number of hall effect sensors supported per board
- Set up autocalibration resistors for MCP3208 ADC
- Switched to more convenient power connector
- Added second MCP3208 sensor to track a seperate Tamura L01Z hall effect sensor
- Mass positioning changes for legibility
- Added mounting holes
- Added reverse polarity protection diode on barrel jack power input
- Set up contacter interface for automatic load switching as well as protection logic
- Added input protection diode and PTC for use with +12V barrel jack input
- Switched to six channel level shifter to support second MCP3208 device
- Moved FETs to low side of relays to ensure proper control

1.1: Revised SPI bus layout to correct mistaken pin assignment.

1.0: Initial development.

(PENDING REVIEW)  
Ed Katynski

Sheet: /Revision Notes/  
File: revnotes.kicad\_sch

**Title: WCS1700 Calibrator**

Size: A4 Date: 2023-08-08

KiCad E.D.A. kicad 7.0.6

**Rev: 2.0**

Id: 9/9